Australian Government

Productivity Commission

Vocational Education and Training Workforce

Productivity Commission Research Report

April 2011

The Productivity Commission

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Foreword

Education and training are essential to generate the skills and knowledge required for a productive economy. They also facilitate social inclusion and civic participation. COAG's reform agenda seeks to raise the educational attainment of the population in general, and of Indigenous Australians in particular. The performance of the education and training workforce has a fundamental role to play in this.

This report, the first of a suite of three on the education and training workforce, focusses on the Vocational Education and Training workforce. Other reports will follow within the next twelve months on the Early Childhood Development and Schools workforces, respectively.

In conducting its study, the Commission consulted widely with the VET sector, industry, government and the wider community. The study benefited greatly from the willingness of all stakeholders to engage. The Commission also acknowledges, the valuable assistance it received from the States and Territories in accessing administrative TAFE workforce data, and from peak groups representing private and enterprise-based providers.

The study was overseen by Deputy Chairman Mike Woods and, in its initial stages, Commissioner David Kalisch. It was undertaken by a research team headed by Patrick Laplagne and located in the Commission's Melbourne office.

Gary Banks
Chairman

April 2011

Terms of reference

I, Nick Sherry, Assistant Treasurer, under part 3 of the *Productivity Commission Act 1998*, hereby:

I, Nick Sherry, Assistant Treasurer, pursuant to Parts 2 and 3 of the Productivity Commission Act 1998 hereby request that the Productivity Commission undertake a research study to examine issues impacting on the workforces in the early childhood development, schooling and vocational education and training sectors, including the supply of and demand for these workforces, and provide advice on workforce planning, development and structure in the short, medium and long-term.

Background

The Council of Australian Governments (COAG) has agreed on common strategic frameworks to guide government action on early childhood development, schooling and vocational education and training (VET) across Australia.

Building the capability and effectiveness of the workforces in these sectors, particularly for Indigenous people, will be critical to achieving the outcomes agreed in these frameworks. This study is to be undertaken in this context, and responds to a request from the COAG Working Group on the Productivity Agenda that the Productivity Commission undertake a research study examining workforce issues in these sectors.

Scope

The Commission is to provide advice on workforce planning, development and structure of the early childhood development, schooling and VET workforces in the short, medium and long-term.

In undertaking this study, it should consider and provide advice on:

1. The current and future demand for the workforces, and the mix of knowledge and skills required to meet service need. This will include consideration of:
   (a) population distribution and demographic trends, jurisdictional and regional analysis;
   (b) significant shifts in skill requirements; and
   (c) policy and regulation given the agreed COAG outcomes (particularly the National Early Childhood Development Strategy, relevant National Partnerships, the National Education Agreement and the National Indigenous Reform Agreement).
2. The current and future supply for the workforces, including:
   (a) demographic, socio-cultural mix and composition of the existing workforces, and jurisdictional and regional analysis;
   (b) elements such as remuneration, pay equity/differentials, working conditions, professional status and standing, retention, roles and

responsibilities, professional development, and training and support structures; and

    (c) qualifications pathways particularly pathways that will ensure accessibility and appropriateness of training to meet the qualifications and competencies required for the various occupations in the workforces.

3. The current and future structure and mix of the workforces and their consequential efficiency and effectiveness, including:

    (a) the composition and skills of the existing workforces;

    (b) the productivity of the workforces and the scope for productivity improvements; and

    (c) the most appropriate mix of skills and knowledge required to deliver on the outcomes in the COAG national framework.

4. Workforce planning, development and structure in the short, medium and long-term, including:

    (a) policy, governance and regulatory measures to maximise the efficiency and effectiveness of the workforces in order to achieve the outcomes set out in the COAG frameworks; and

    (b) changes to ongoing data collection to establish a robust evidence base, provide for future workforce planning and development and meet reporting requirements.

In addressing the Terms of Reference, a key consideration will be the extent to which sectoral and jurisdictional boundaries limit innovation and flexibility in workforce planning, development and practices. In addition to sector-specific issues, the Commission is therefore requested to consider whether reducing sectoral divides between workforces in these sectors could support a more learner-focused approach, achieve better individual outcomes and increase the efficiency of workforce development and planning.

Cross-sectoral and integrated service delivery
In recognition of some lowering of cross-sectoral boundaries and the growth of cross-sectoral delivery and integrated service delivery models, the Commission is asked to consider and provide advice on:

1. workforce skill and training needs;
2. the extent to which job design and employment agreements in the sectors are aligned to contemporary work practices;
3. implications for workforce planning across the sectors from integrated service delivery; and
4. the extent to which existing employer practices encourage attracting and retaining employees.

In addition, the Commission is to give consideration to factors that impact on building Indigenous workforce capability in recognition of the effect this will have on improving outcomes for, employment of and services to Indigenous Australians.

The Commission is also to give consideration to factors that have particular impact on each sector. These will include:

1. The Early Childhood Development Workforce
The Early Childhood Development (ECD) workforce can include, but not be limited to: coordinators and managers, early childhood teachers, teaching assistants and para-professionals, childcare workers for pre-primary and primary aged children, early childhood intervention professionals, administrative staff, community service workers and relevant health and social welfare professionals.

In relation to the ECD workforce the Commission is asked to specifically consider and give advice on:

1. Factors affecting the current and future demand and supply for the ECD workforce, and the required mix of skills and knowledge, including:
   a. delivery of fully integrated ECD services including maternal and child health, childcare, preschool, family support services and services for those with additional needs;
   b. market requirements for broader leadership, management and administrative skills in operating both mainstream universal service providers and integrated service hubs;
   c. the availability and quality of pre-service education programs, including through undergraduate and postgraduate education and VET, and consideration of training pathways;
   d. ECD workforce participation, including ease of access to the early childhood development workforce in different sectors and net returns to individuals and recognition of expertise; and
   e. the quality and skills of the workforce, job design and workplace practices and arrangements and their contribution to achieving COAG outcomes and setting future direction.

2. Workforce planning, development and structure in the short, medium and long term, covering:
   a. career pathways, the structure of existing employment arrangements and practices and the extent to which they are dis/incentives to attracting and retaining employees, including pay and conditions across settings; strategies to address possible pay equity issues as necessary; options for funding pay increases as necessary; and the implications for purchasers of ECD services and all levels of government and funding responsibilities;
   b. potential labour market failures;
   c. the impact of government, community and private provision; and
   d. the concept and workforce implications of integrated service delivery.

2. The Schooling Workforce

The schooling workforce refers to teachers and those who support the practice of teaching. These can include, but are not limited to: leaders and managers; teaching assistants and para-professionals; administrative staff; and relevant health professionals.

In relation to the schooling workforce the Commission is asked to specifically consider and give advice on:

1. The current and future supply for the schooling workforce, including:
    a. the availability and quality of pre-service education programs, including through undergraduate and postgraduate education, and VET;
    b. government programs targeting supply pressures, including the extent to which there is national cohesion in relation to these programs;
    c. motivation for entering, remaining in and exiting the school workforce and the attraction and retention of principals in changing contexts; and
    d. school workforce participation, including ease of access to the teacher profession and/or schooling workforce, net returns to individuals, recognition of industry expertise, wastage rates in teacher training and underutilisation of qualified teachers (such as loss of qualified teachers to other occupations or overseas).

2. The structure and mix of the workforce and its consequent efficiency and effectiveness, including:
    a. the composition and skills of the existing workforce;
    b. the productivity of the workforce and the scope for productivity improvements, qualifications pathways; and
    c. how the current delineation of duties supports or impedes the achievement of COAG outcomes.

3. Workforce planning, development and structure in the short, medium and long term:
    a. the extent to which current sectoral boundaries promote or limit efficiency and effectiveness in schooling workforce;
    b. interface with suppliers of pre-service training (undergraduate, post-graduate and VET) and
    c. the quality and culture of the workforce and its employers, and their contribution to achieving COAG outcomes and setting future directions.

3. The VET Workforce

The status of VET practitioners as 'dual professionals', deploying both industry and education skills delivered in schools, VET only, dual sector and industry settings, is unique among education sectors, and poses both challenges and opportunities for the VET sector in attracting and retaining staff. In addition, the increasingly

commercial environment in which many providers operate creates a significant role for VET professionals who are engaged in organisational leadership and management, but not directly involved in training delivery. The impact of this trend on the required capabilities of VET professionals is of policy interest.

In relation to the VET workforce, the Commission is asked to consider both the VET workforce as a whole, including trainers and assessors in enterprises, adult community education and community organisations, and the TAFE workforce as a subset, and provide advice on:

1. Factors affecting the current and future demand for the VET workforce, and the required mix of skills and knowledge:
    a. change in participation in VET as a result of increasing labour market emphasis on formal training and lifelong learning;
    b. change in volume and type of training delivered to each VET participant as a result of the trend towards higher level qualifications, and as a result of the impact of the Recognition of Prior Learning (RPL) and the Recognition of Current Competencies (RCC);
    c. likely future patterns of training demand by industry and sector, including as a consequence of responses to emerging economic and environmental issues and to gap training and skills assessment;
    d. requirement for broader skills in VET professionals as a result of increasing system focus on client needs, including flexible delivery, greater focus on employability skills, catering for a more diverse student base, and partnering with enterprises and communities;
    e. demand for managerial and entrepreneurial skills as a result of growing commercial dimensions of the VET sector and strategic market positioning and branding;
    f. the impact of delivery of higher level VET qualifications (eg Associate and Bachelor Degrees); and
    g. training pathways and the provision of 'second chance' education and training such as for migrant and Indigenous students.

2. The current and future supply of the VET workforce, including:
    a. motivation for entering, remaining in and exiting the workforce; and
    b. competition from other employers including industry and other education sectors.

3. The structure of the workforce and its consequent efficiency and effectiveness, including:
    a. the extent to which job design and employment agreements in the VET sector are aligned to contemporary work practices in a commercially competitive environment;

b. the adequacy of support for high-quality professional practice, including consideration of practitioner qualifications and standards for VET practitioners across sectors;

c. the current and potential impact of workforce development activities within the VET sector on the capability and capacity of the VET workforce, including a workforce development plan; and

d. the implications of emerging workplace and employment practices, including increasing casual and part-time employment, the 'core/periphery' model and blurring of teaching and non-teaching roles.

Study Process

In undertaking its study, the Commission should consult widely with relevant professionals and interested parties. It should use, but not replicate, existing work such as that underway by COAG, the relevant Ministerial Councils, Senior Officials' Working Groups and jurisdictions, including on:

- the early childhood quality reform agenda;
- teacher quality reforms;
- further reforms arising from policy directions of the National Agreement on Skills and Workforce Development;
- Indigenous reforms; and
- previous work commissioned by the Victorian DHS for the Community Services Ministers Advisory Committee.

This should include relevant recent survey work and workforce studies in each sector and research undertaken by NCVER, ACER, various university research centres, TAFEs and Industry Skills Councils, and the OECD.

The study should include a comparative element, both in terms of comparing the education and training workforce to other community/public service professions such as the health sector, and of relevant international comparisons, particularly with regard to the ECD workforce which is undergoing significant reform in Australia.

The Commission should provide a report, dealing with the VET workforce, within twelve months of receipt of this reference; and a second and third report, dealing with the early childhood development and schooling workforces, within eighteen and twenty four months respectively of receipt of this reference. The reports will be published.

Nick Sherry
Assistant Treasurer
[Received 22 April 2010]

Contents

Acknowledgment

Abbreviations and explanations

Abbreviations

ABS	Australian Bureau of Statistics
AC	alternative certification (US)
ACCI	Australian Chamber of Commerce and Industry
ACE	Adult and Community Education
ACER	Australian Council for Educational Research
ACPET	Australian Council for Private Education and Training
ACTU	Australian Council of Trade Unions
AEU	Australian Education Union
Ai Group	Australian Industry Group
AITSL	Australian Institute for Teaching and School Leadership
ALTC	Australian Learning and Teaching Council
AMAP	Accreditation and Moderation Action Plan (NZ)
ATLS	Associate Teacher, Learning and Skills (UK)
ANTA	Australian National Training Authority
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ANZSIC	Australian and New Zealand Standard Industrial Classification
AQF	Australian Qualifications Framework
AQTF	Australian Quality Training Framework
AVETMISS	Australian Vocational Education and Training Management Information Statistical Standard
CCA	Community Colleges Australia
Cedefop	European Centre for the Development of Vocational Training

COAG	Council of Australian Governments
CPA	Certified Practicing Accountant
CRAFT	Commonwealth Rebate for Apprentice Full-time Training
CRICOS	Commonwealth Register of Institutions and Courses for Overseas Students
CSO	community service obligation
CSU	Charles Sturt University
CTE	Career and Technical Education (US)
CVET	continuing VET
DEEWR	Department of Education, Employment and Workplace Relations
DEST	Department of Education, Science and Training
DFEEST	Department of Further Education, Employment, Science and Technology (South Australia)
ECD	Early Childhood Development
ELICOS	English Language Intensive Courses for Overseas Students
ERTO	Enterprise Registered Training Organisation
ERTOA	Enterprise Registered Training Organisation Association
ESOS	*Education Services for Overseas Students Act 2000* (Cwlth)
FE	Further Education
IBSA	Innovation and Business Skills Australia
ICAA	Institute of Chartered Accountants in Australia
ICT	information and communication technologies
IfL	Institute for Learning (UK)
IGA	Intergovernmental Agreement on Federal Financial Relations
ITAB	Industry Training Advisory Body
ISB	International Student Barometer
ISC	Industry Skills Council
ITO	Industry Training Organisations (NZ)
ITP	Institutes of Technology and Polytechnics (NZ)
IVET	initial VET

JTA	Joint TAFE Associations
LHMU	Liquor, Hospitality and Miscellaneous Union
LONCETT	London Centre for Excellence in Teacher Training
LLN	language, literacy and numeracy
LLUK	Lifelong Learning UK
MABEL	Medicine in Australia: Balancing Employment and Life
MCA	Minerals Council of Australia
MCTEE	Ministerial Council for Tertiary Education and Employment
NAAS	National Apprenticeship Assistance Scheme
NARA	National Audit and Registration Agency
NASWD	National Agreement for Skills and Workforce Development
NCVER	National Centre for Vocational Education Research
NIRA	National Indigenous Reform Agreement
NISC	National Industry Skills Committee
NMIT	North Melbourne Institute of TAFE
NQC	National Quality Council
NRA	National Reform Agenda
NSIA	National Strategic Industry Audit
NSC	National Standards Council
NSOC	National Senior Officials Committee
NTF	National Training Framework
NTIS	National Training Information Service
NTSC	National Training Statistics Committee
NVEAC	National VET Equity Advisory Council
NVQ	National Vocational Qualifications (UK)
NVR	National VET Regulator
OECD	Organisation for Economic Co-operation and Development
Ofsted	Office for Standards in Education (UK)
OTA	Ordinance of Trainer Aptitude (Germany)
PC	Productivity Commission

PD	Professional development
PTLLS	Preparing to Teach in the Lifelong Learning Sector (UK)
QTLS	Qualified Teacher, Learning and Skills (UK)
RAP	Reconciliation Action Plan
RCC	recognition of current competency
RI	Riverina Institute
RPL	recognition of prior learning
RTO	Registered Training Organisation
SCRGSP	Steering Committee for the Review of Government Service Provision
SES	socio-economic status
SET	Survey of Education and Training
SEUV	Employers' Use and Views of the VET System survey
SOS	Student Outcomes Survey
SOL	Skilled Occupation List
STA	State Training Authority
TAA	Training and Assessment
TAE	Training and Education
TAFE	Technical and Further Education
TDA	TAFE Directors Australia
TEC	Tertiary Education Commission (NZ)
TEI	tertiary education institutions (NZ)
TESOL	teaching English to speakers of other languages
TEQSA	Tertiary Education Quality and Standards Agency
TVET	Technical and Vocational Education and Training Australia
VCEC	Victorian Competition and Efficiency Commission
VET	Vocational Education and Training
VETAB	Vocational Education and Training Accreditation Board (New South Wales)
VETiS	VET-in-Schools
VTA	Victorian TAFE Association

Explanations

Billion   The convention used for a billion is a thousand million (10^9).

Findings   *Findings in the body of the report are paragraphs highlighted using italics, as this is.*

Recommendations   ***Recommendations in the body of the report are highlighted using bold italics, as this is.***

Glossary

Aboriginal	A person who identifies as being of Aboriginal origin. Might also include people who identify as being of both Aboriginal and Torres Strait Islander origin.
Accredited training	Training that leads to a nationally recognised qualification.
Adult and Community Education	Education and training intended principally for adults, including general, vocational, basic and community education, and recreation, leisure and personal enrichment programs.
Apprenticeship	A system of training regulated by law or custom which combines on-the-job training and work experience while in paid employment with formal (usually off-the-job training). The apprentice enters into a contract of training or training agreement with an employer which imposes mutual obligations on both parties.
Australian Flexible Learning Framework	The national training system's e-learning strategy that is collaboratively funded by the Australian and State and Territory Governments.
Australian Qualification Framework	A unified system of national qualifications in schools, VET (TAFEs and private providers) and the higher education sector (mainly universities).
Australian Quality Training Framework	The Australian Quality Training Framework comprises standards for Registered Training Organisations and standards for State and Territory Registering and Course Accrediting Bodies.
Capability	The ability of the workforce to conduct effective training and assessment.

Capacity	The total amount of effort produced by the whole workforce, that depends on the number of people employed, their characteristics and organisation, and their individual effort.
Community service obligation	A situation where governments require an enterprise to engage in a non-commercial activity in order to meet a social objective.
Competency-based training	Training which develops the skills, knowledge and attitudes required to achieve competency standards.
Competency completions	The number of enrolments and qualifications completed and units of competency awarded in the previous calendar year by each Registered Training Organisation.
Curriculum-based training	Training with the goal of students learning material from a course of study rather than demonstrating competence. See also 'competency-based training'.
Disadvantaged learner	Disadvantaged learners are from groups that may have more difficulty studying in the VET sector, and include, but are not restricted to people: with low prior educational attainment; who speak a language other than English at home; who are Indigenous; who have disability; or who live in remote areas.
Distance education	Education that is not delivered face-to-face (e-learning is a type of distance education).
Dual professional	VET trainers and assessors can be described as 'dual professionals' since they are required to have both industry currency and educational capabilities.
e-learning	Learning conducted through electronic media, particularly the internet.
Employment-based delivery	Employment-based delivery involves VET delivered in the workplace.
Enterprise RTO	An enterprise, the principal business of which is not education and training, that is a Registered Training Organisation (RTO). So-called Enterprise RTOs are able to deliver nationally-recognised qualifications and access government funding.

Enterprise trainers and assessors	Trainers and assessors who deliver accredited training within their (non-education specialised) enterprise.
Equity group	See 'disadvantaged learner'.
Firm-specific training	Unaccredited training that is delivered based on an individual firm's needs.
Flexible learning	The provision of a range of learning modes or methods, giving learners greater choice of when, where and how they learn.
General staff	Staff with generic skills who support the operation of VET institutions, such as accountants, librarians, IT staff and maintenance staff. The skills of these workers are not specific to the VET sector, meaning that they could be employed elsewhere in the labour force to perform similar job tasks.
Indigenous	A person of Aboriginal and/or Torres Strait Islander origin who indentifies as being of Aboriginal and/or Torres Strait Islander origin.
Industry currency	The ability — and responsibility — of VET trainers and assessors to ensure that their teaching is based on current industry practices and, hence, meets the needs of industry.
Industry expert	An industry worker who contributes to training or assessment in VET by sharing his or her specialised industry knowledge on an occasional or one-off basis.
On-line delivery	See 'e-learning'.
Other VET professionals	Staff who manage, support and facilitate the VET-specific services provided by VET trainers and assessors.
Pedagogy	The science of teaching.
Practicum	Supervised training delivered in a real classroom.
Pre-accredited training	Courses designed for learners to gain the confidence and skills required to undertake accredited training. These include foundation, bridging and enabling courses.

Pre-apprenticeship	A course which provides initial training in a particular industry or occupation.
Private provider	A VET provider that is privately owned, such as a hairdressing college or a private Enterprise Registered Training Organisation.
Public provider	A VET provider that is publicly-owned, such as a TAFE and some Enterprise Registered Training Organisations.
Purchaser–provider funding model	The allocation of funding through negotiation between providers and State Training Authorities.
Qualification	Awarded in recognition of a student completing an Australian Qualifications Framework qualification or course by demonstrating the required knowledge, skills or competencies.
Registered Training Organisation	An organisation registered by a state or territory registering and accrediting body to deliver training and/or conduct assessments and issue nationally recognised qualifications in accordance with the Australian Quality Training Framework.
Registering and course accrediting bodies	The authority responsible in each state or territory for registering training organisations and the accreditation of courses where no relevant Training Packages exist.
RTO	See 'Registered Training Organisation'.
Skill Set	Single units of competency or combinations of units of competency from a nationally endorsed Training Package, which link to a licence or regulatory requirement, or a defined industry need. Units of competency that form a Skill Set can be drawn from one or more Training Packages.
Statement of Attainment	Formal certification in the VET sector by a Registered Training Organisation that a person has achieved: part of an Australian Qualifications Framework qualification; or one or more units of competency from a nationally endorsed Training Package; or all the units of competency or modules comprising an accredited short course.

State Training Authority	Each state and territory government has a training authority that administers VET, allocates funds, registers training organisations and accredits courses.
TAFE institute	Technical and Further Education institute. A publicly-owned VET provider.
Torres Strait Islander people	People who identify as being of Torres Strait Islander origin. May also include people who identify as being of both Torres Strait Islander and Aboriginal origin.
Traineeship	A system of vocational training combining off-the-job training with an approved training provider with on-the-job training and practical work experience. Traineeships generally take one to two years and are now a part of the Australian Apprenticeships system.
Trainers and assessors	VET trainers and assessors are workers who directly engage with students in the development, delivery, review and assessment of VET.
Training Package	An integrated set of nationally endorsed standards, guidelines and qualifications for training, assessing and recognising people's skills, developed by industry to meet the training needs of an industry or group of industries.
Unaccredited training	Training that does not lead to a nationally recognised qualification. The training activity must have a specified content or predetermined plan designed to develop employment-related skills and competencies. It does not include apprenticeships and traineeships and other nationally recognised training.
VET-in-Schools	A program which allows students to combine vocational studies with their general education curriculum. Students participating in VET-in-Schools continue to work towards their Senior Secondary School Certificate, while the VET component of their studies gives them credit towards a nationally recognised VET qualification. VET-in-Schools programs may involve structured work placements.

VET sector	For the purpose of this study, the Commission has defined the Vocational Education and Training (VET) sector as encompassing all Registered Training Organisations (public and private), funded from public sources, on a fee-for-service basis or internally by enterprises.
VET system	See 'VET sector'.
VET practitioners	Trainers and assessors with an ongoing involvement in VET delivery, whether employed on a permanent, sessional or casual basis.
VET teachers, trainers and assessors	Referred to in the report as 'trainers and assessors' for brevity. VET trainers and assessors are workers who directly engage with students in the development, delivery, review and assessment of VET.
Vocational competency	See 'industry currency'.
Vocational Education and Training	Post-compulsory education and training, delivered by further education institutions and other Registered Training Organisations, which provide people with occupational or work-related knowledge and skills. VET also includes programs that provide the basis for subsequent vocational programs.

OVERVIEW

Key points

- The Vocational Education and Training (VET) workforce builds Australia's human capital and contributes to its economic prosperity by equipping workers with the skills that industry needs. The VET workforce also contributes to social inclusion and civic participation.

- There are nearly 5000 Registered Training Organisations (RTOs), ranging from large, broad-based Technical and Further Education (TAFE) institutes to private sector and enterprise-based RTOs of varying size and scope.

- The VET workforce comprises about 73 000 TAFE employees and an estimated 150 000 who work for other VET providers. It includes trainers and assessors, other professionals and general staff. It has a greater proportion of part-time, casual and older workers, compared with the general labour force.

- VET trainers and assessors are required to be 'dual professionals', having both industry currency and educational capabilities.

- At an aggregate level, the current VET workforce numbers, profile and capability meet many of the existing demands on the VET sector.

- However, some clear deficiencies should be addressed. The VET sector requires: more trainers and assessors with industry skills in demand; greater attention to meeting changing contemporary skills needs; and a wider base of the VET workforce that has at least basic educational capabilities.

- A confluence of demographic, economic and regulatory factors will introduce greater challenges for the VET sector over coming years. Necessary reforms, that will improve the VET workforce's capacity and capability, include:
  - a more flexible industrial relations regime in the TAFE sector, to facilitate recruitment and retention in areas of skill scarcity
  - more consistent delivery of the Certificate IV in Training and Assessment (TAA) to the required regulatory standard, to improve basic educational capability and consumer confidence. All practitioners in the VET sector should hold a teaching qualification commensurate with their role
  - action to remedy gaps in the: delivery of higher-level qualifications; assessment of Recognition of Prior Learning and of Current Competency; use of information and communication technologies; and development of managerial and leadership skills
  - the deployment of strategies that enhance the contemporary vocational competence of those workers with long tenures or who are employed only in the VET sector
  - more targeted and evidence-based professional development that addresses identified capability requirements of the workforce.

- Better data — particularly covering the private VET sector — are urgently required to inform policy strategies and assist with workforce planning.

Overview

What this study is about

The Productivity Commission has been asked by the Council of Australian Governments (COAG), through the Australian Government, to undertake a study of the workforces in the Vocational Education and Training (VET), Early Childhood Development (ECD) and Schools sectors. This report on the VET workforce is the first of the final reports from this suite of studies.

In particular, the Commission was requested to consider the demand for and supply of VET workers, workforce composition and workforce planning, among other factors of significance. Although this is primarily a study of the VET workforce, the Commission has considered the context in which the VET sector operates and the implications this has for workforce composition and development. This has included, for example, an examination of cross-sectoral dimensions, as exist between the VET sector and the Schools and higher education sectors.

A focus on the workforce in a high-skilled and labour intensive activity such as education and training is justified. In this type of activity, the quality of the service provided is critically dependent on the availability and quality of those who deliver the service.

The VET sector

In conjunction with other education sectors, the VET sector should be able to:

- build human capital by inspiring, stimulating and enriching learners from all segments of the community
- assist the workforce to acquire the skills needed by the economy
- contribute to social inclusion and civic participation.

Diversity of the VET sector

For the purposes of this study, the Commission has limited its analysis to VET sector providers who are Registered Training Organisations (RTOs). Registration is an essential prerequisite to delivering nationally recognised accredited courses. The broader VET sector is not limited to RTOs, however. Many organisations and individuals regularly engage in unaccredited or informal training, both of which can add to their human capital and workforce skills.

Data on the VET sector are inconsistent and incomplete. From the information available, the Commission estimates that there are almost 5000 RTOs, including both public sector and private sector organisations, once all schools and higher education institutions that are also RTOs are included.[1] Table 1 shows the nature of the sectors in which some of these RTOs are located.

Large, broad-based TAFEs are still a major component of the sector, with 59 such institutes currently in operation. Nowadays, however, the public VET sector also includes schools, polytechnics, universities, community organisations and some government agencies such as the Australian Defence Force. In the private sector, small, specialised providers coexist with large, multi-disciplinary colleges and Enterprise Registered Training Organisations (ERTOs).

Table 1   Broad indicators of VET sector activity[a]

	TAFE and other non-school government providers	Private RTOs (including ERTOs)	ERTOs	RTOs receiving public funds[c]
Number of students	1 312 300[c]	1 467 000[d]	na	1 707 000
Student contact hours	368.2m[c]	na	na	438.9m
Certificate-level enrolments	845 000[c]	597 900[e]	233 000[f]	1 362 000
Diploma or higher enrolments	185 000[c]	307 100[e]	37 000[f]	223 000
Number of institutions[b]	182	3732	211	na

a Data in this table are indicative only, as they are not strictly comparable. **b** At August 2010. This row does not contain schools or private universities that are RTOs. The first figure in this row contains 112 government ERTOs. The second figure contains all private RTOs, including private ERTOs. The third figure contains private ERTOs only. **c** In 2009. **d** ACPET estimate of full-time equivalent number of students enrolled in May–June 2010. **e** ACPET estimate of enrolment level (not course type) in May–June 2010. **f** Productivity Commission-adjusted ERTOA estimate of number of enrolments in 2008 (sub. DR91, p. 7). **na** not available.

Source: Based on NCVER data in appendix B, ACPET (2010a unpublished) and ERTOA (2009).

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1 In this study, references to 'schools' and 'universities' are made in the context of these institutions offering VET services. Any exceptions are noted.

The VET qualification most frequently studied is the medium-skilled Certificate III (involving an estimated 30 per cent of students and enrolments in 2009). The most popular courses are in 'management and commerce' and 'engineering and related technologies'.

Relative to other education sectors, the VET student body includes a greater representation of Aboriginal and Torres Strait Islander peoples, people from a non-English speaking background, people with disability and people living in rural and remote locations. Moreover, VET and Adult and Community Education (ACE) providers play an important role in facilitating lifelong and 'second chance' learning. In 2009, more than half of VET students were aged 25 years or over, and most VET students had a prior educational level of Year 12 or lower. Thus, the VET sector in general, and ACE in particular, are key contributors to equitable access to education and training by disadvantaged groups.

Funding and the growth of the private VET market

From its inception, funding of the VET sector has been largely the responsibility of governments. TAFEs continue to be mainly funded from the public purse, as do those public schools and universities that now double as RTOs. A large number of private providers who meet RTO requirements also receive public funding — estimated at $455 million in 2008. Nevertheless, private RTOs primarily rely on fee-for-service payments ($2 billion in 2008). The spending on training by government and private ERTOs for the in-house provision of free-of-charge accredited training to their employees is also significant ($2.1 billion in 2008). Table 2 provides broad estimates of the sources of funding for RTOs.

Table 2   **Sources of funding for government, private and enterprise RTOs, 2008[a]**

	TAFE and other government providers	Private providers[b]
	$ million	$ million
Government recurrent funding	3 645	455
Fee for service	991	2 075
Enterprise funding in ERTOs	945[c]	1 155[d]
Total	5 581	3 685

[a] Broad estimates only. Figures are not strictly comparable. [b] Includes private ERTOs, private RTOs receiving public funding and other RTOs. [c] ERTOA estimate (sub. DR91, p. 8) of government ERTO training expenditure, based on ERTOA (2009). [d] ERTOA estimate (sub. DR91, p. 8) of private ERTO training expenditure, based on ERTOA (2009).

Source: Productivity Commission estimates based on NCVER (2010c), ACPET (2010a unpublished) and ERTOA (2009).

In recent times, private fees have grown as a source of funding for RTOs. Many private providers rely exclusively on fees from students and industry. Others, including TAFEs, supplement public funding with private fees. The majority of ERTOs do not charge private fees and the training they deliver is predominately funded by the enterprise as part of its business operating costs.

Considerable growth in fee-for-service delivery has been underpinned by an expansion of the international VET student market (overseas students studying in Australia), to the main benefit of private providers (table 3). Whereas the number of domestic students in public RTOs fell by 113 000 between 2000 and 2009, international student numbers across both public and private RTOs grew by a greater amount — over 200 000, mostly in the private sector — over the same period.

Table 3   **Domestic and international students in public RTOs, private RTOs and other providers, 2000 and 2009**

	2000		*2009*		*Change 2000–09*
	'000	%[a]	'000	%[a]	'000
Public RTOs					
Domestic students	1537.1	98.7	1424.5	97.3	-112.6
International students	19.8	1.3	39.7	2.7	19.9
Private providers[b]					
Domestic students	**na**	**na**	1274.7[c]	86.9	**na**
International students	11.0	**na**	192.3[c]	13.1	181.3

[a] Percentages denote proportion of domestic and international students in total student numbers for that category of RTO. [b] Includes ERTOs and private RTOs receiving public funding. [c] Based on the 2010 ACPET estimate of total full-time-equivalent student numbers in the private provider market (section B.1). **na** not available.

Source: Based on NCVER and Australian Education International data in appendix B, and data from ACPET (2010a unpublished).

The rise of the international student market was particulary rapid from 2007 to 2009, reflecting a progressive relaxation of immigration policy. Students who completed courses in official 'Migration Occupations in Demand', and who could demonstrate work experience, were able to convert their student visas into permanent residency visas. A tightening of immigration policy, announced in February 2010, has since contributed to a significant reduction in the number of overseas students enrolled in VET and other educational institutions. Other factors are also at play, including the appreciation of the Australian currency.

Increasing overlaps with the schools and higher education sectors

The VET sector has considerable overlap with both the schools and higher education sectors. Typical VET qualifications such as Certificates I and II can be readily obtained while at school through the 'VET-in-Schools' program. Conversely, some VET providers offer Senior Secondary Certificates of Education, more generally associated with the schools sector.

At the other end of the spectrum, universities have long offered Diplomas and Advanced Diplomas. These two qualifications are also typical of the higher end of VET sector offerings. Overlaps between VET and higher education have been increasing. A growing number of 'dual-sector' and 'mixed-sector' providers, public and private, deliver both VET and university courses. Some institutions in this 'tertiary' sector offer qualifications that range from Certificates to Doctorates.

Role of industry

Firms interact with the VET sector on many levels.

First, firms can themselves be part of the VET sector. Some have always trained, and continue to train, their employees in-house. In recent times, some firms that deliver internal training have opted to seek accreditation as ERTOs. This enables them to deliver portable Australian Qualifications Framework (AQF) qualifications, as well as providing them with a nationally recognised quality framework for their training operations. Accreditation also enables firms to receive government funding for some of the training they deliver. However, about half of all ERTOs receive no such funding.

Second, firms are both consumers and clients of the VET sector. As consumers, they rely crucially on the VET sector to supply many of the skills they require, even if they have no direct engagement with VET. As clients of the VET sector, employers directly purchase training for their employees, on a full-fee or government-subsidised basis.

Third, firms provide a reservoir of labour from which the VET workforce is sourced, either permanently or temporarily.

Fourth and last, firms are represented — along with unions and other groups — in Industry Skills Councils (ISCs) that play a key role in shaping Training Packages. Industry organisations also contribute to other major VET advisory arrangements, including Industry Training Advisory Boards and the National Quality Council (NQC).

Government initiatives

In 2008, COAG agreed to targets for the educational attainment of the population. The relevant agreements call for substantial increases, by 2020, in the proportion of Australians with selected VET and higher education qualifications. Educational targets have also been set for Indigenous Australians and for the delivery of green skills.

Achievement of the targets is underpinned through a number of government funding initiatives to meet the cost of training or retraining workers (including those who are unemployed) in areas of skills shortages.

Another important government measure is the establishment (from 1 July 2011) of a National VET Regulator, to have responsibility for RTO quality assurance, monitoring and enforcement in all states and territories (except Victoria and Western Australia, where mirror legislation will be enacted). The National VET Regulator is due to merge with the higher education regulator (the Tertiary Education Quality and Standards Agency) in 2013.

Some governments are promoting greater competition, contestability of funding and demand-driven provision in the publicly-funded VET market. Victoria has taken early steps in this area, and a number of other jurisdictions are now following suit. Within such arrangements, training is driven by student preferences rather than anticipated industry requirements.

The VET workforce

Size and composition of the workforce

Robust estimates of the overall VET workforce — which includes trainers and assessors, other VET professionals and general staff — are not available. Reliable data on the TAFE workforce, drawn from administrative collections, suggest that it currently numbers 73 000, including both permanent and non-permanent employees. Figures for the non-TAFE workforce, including private RTOs and ERTOs, are less accessible and much less reliable. The Commission estimates that about 150 000 workers are employed by non-TAFE providers, although higher numbers have previously been published by other researchers. The most recent study by the National Centre for Vocational Education Research (NCVER) put the total number of VET workers (TAFE and non-TAFE) at about one million (Mlotkowski and Guthrie 2008). However, this is very likely to include VET workers who are not employed by RTOs and, therefore, not in-scope for this study.

About half of the VET workforce comprises trainers and assessors who, as 'dual professionals', have the capacity to operate in both educational and industry environments. Importantly, their teaching must be based on current industry practices and, hence, meet the needs of those firms that employ their students.

Trainers and assessors are a diverse group. They range from ongoing, full-time VET practitioners who deliver training and assessment, course development, Recognition of Prior Learning (RPL) and Recognition of Current Competency (RCC), to industry experts who provide specific training under supervision, generally on an occasional or temporary basis.

Other VET professionals provide leadership, management and support for teaching, training and assessment activities. General staff are employed in generic roles found in the rest of the economy, such as accountants, librarians, administrators and maintenance staff.

Relative to other education workforces, on a headcount basis, there is a relatively high prevalence of non-permanent employment in the VET sector. Estimates suggest that up to one-third of trainers and assessors in the non-TAFE sector are engaged as casuals or fixed-term employees. This proportion is even higher in the TAFE sector, where about 60 per cent of trainers and assessors were employed on a non-permanent basis in 2008, with a particularly high use of casuals in the roles of trainers and assessors (and with significant variation across jurisdictions).

Casualisation of the VET workforce is partly a response to the sector's emphasis on industry currency and close association with industry more generally. Flexible forms of employment also enhance the ability of the VET sector to respond quickly and adequately to new or varying skills requirements, over time and in different regions. The Commission supports this flexibility and considers that caps on the engagement or deployment of casuals are likely to be, in most circumstances, detrimental to the responsiveness of the VET sector.

Further, job mobility data indicate that, of the permanent or ongoing employees now in the VET workforce, three-quarters joined as casual or fixed-term employees originally. That said, casual employment might, at times, reduce the quality of the teaching or learning experience in VET, and restrict opportunities to develop teaching and assessment ability. This supports a need for adequate professional development for casual and other non-permanent staff.

Recruitment of VET workers

Although there do not appear to be widespread labour shortages affecting the VET sector, participants reported that demand exceeded supply for:

- trainers and assessors with skills that are also in high demand by industry, particularly due to the resources boom (mining, building, construction, electrical engineering) and population ageing (nursing, aged care)

- specialised skills (for example, Indigenous education, literacy and numeracy education and e-learning)

- trainers and assessors in some regional and remote locations

- non-teaching staff with appropriate managerial, human resources, information and communication technologies (ICT) or VET compliance systems expertise.

Recruitment difficulties in specific areas were mainly attributed to the VET sector's inability to pay competitive salaries, relative to the relevant industry norms. The existence of salary differentials between VET and some relevant comparator occupations is highlighted by analysis of permanent/fixed-term employee hourly wages (figure 1). Construction and mining occupations are a case in point. However, there are also instances where VET salaries are on par with, or higher than, those in occupations that are alternatives to VET employment — for example, for people holding vocational qualifications in tourism and nursing (figure 1). Higher VET salaries, in those cases, might reflect the fact that trainers and assessors add an educational capability to their vocational skills.

Moreover, hourly wages for casual VET trainers and assessors are significantly higher than those in all of the comparator occupations shown, presumably a consequence of extra payments for preparation and marking. (The ability to earn several such payments, through a portfolio of casual jobs, might be especially attractive to people wanting to work part-time.)

However, the persistence of some VET trainer and assessor shortages, despite the relative attractiveness of casual wages in the sector, suggests the existence of disincentives, such as job insecurity or low hours.

Looking across the broader education sector, VET hourly wages are, on average across permanent and non-permanent employees, below those of university lecturers but above those of school teachers.

Figure 1   **Total earnings per hour, VET trainers and assessors and selected comparator occupations, 2010**

▧ Structural Steel Construction Workers	☐ Drillers Miners and Shot Firers
■ VET Trainers & Assessors	▨ Tourism and Travel Advisers
⊠ Aged and Disabled Carers	▨ Nursing Support and Personal Care Workers
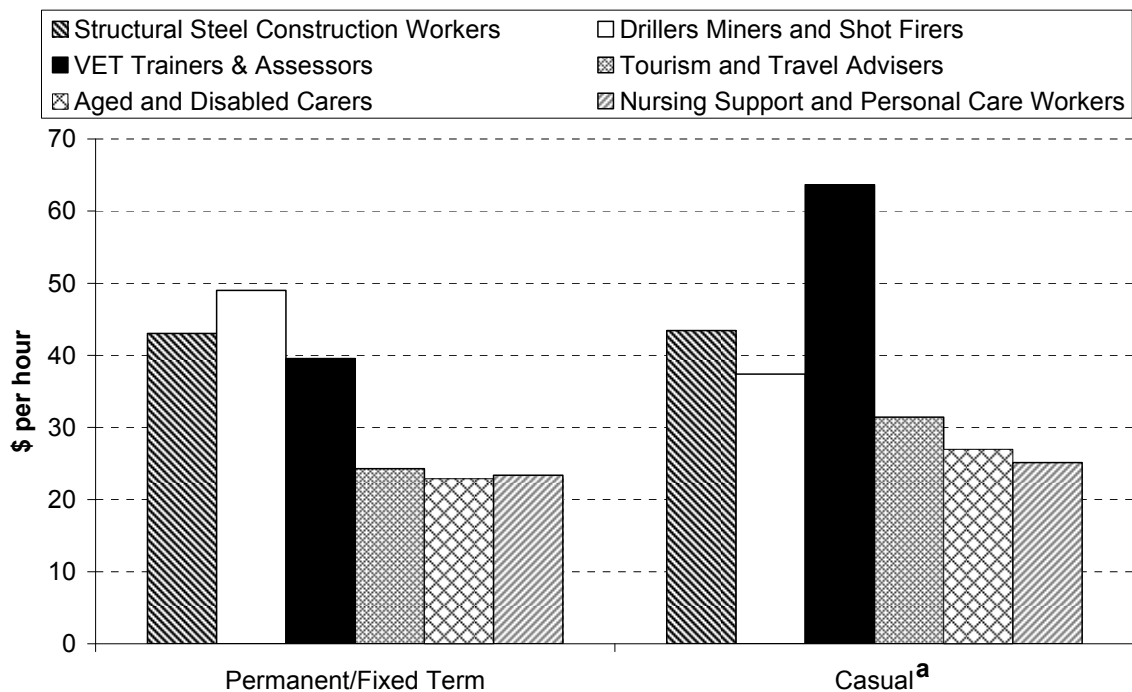
a Hourly earnings for casual VET trainers and assessors can include an allowance for up to half an hour of additional time devoted to duties associated with teaching, that might not be included in their reported hours worked. This allowance might partly account for their higher hourly earnings, relative to other occupations, but the size of this effect is not known.

Source: Productivity Commission estimates based on unpublished data from the ABS *Survey of Employee Earnings and Hours* (2010), Cat. no. 6306.0.

Remuneration aside, work conditions in the VET sector will also influence the attractiveness of employment in the sector. Full-time TAFE workers are not required to attend their workplace for the standard number of weekly work hours, when calculated on an annualised basis. Paid non-attendance time might be especially attractive to those who have roles as carers or volunteers, or give work–life balance a high priority for other reasons. Casual employment can also be attractive for those same reasons.

Retention of VET workers

Many participants expressed concerns about the ability of the VET sector to retain workers in the medium term. The VET workforce is relatively old. The average age of non-TAFE trainers and assessors was 44 years in 2006, some four years older than that of the wider labour force. The average for the TAFE trainer and assessor group was even higher, at 49 years in 2010.

To some extent, this older age profile is a consequence of the vocational nature of the disciplines being taught in VET, that require prior experience in industry. VET teaching is often a second career for workers such as manufacturing or construction workers who 'go off the tools'. But the age profile also reflects the tenure of a large cohort of workers who entered the VET sector more than ten years ago, some of whom are now approaching potential retirement age. This does not mean, however, that they will all actually retire soon; a September 2010 survey found that only 3 per cent of trainers and assessors aged 55 or over reported an intention to retire within the following 12 months.

Delayed retirement will mitigate the effects of workforce ageing, to some extent, as will replenishment of the existing workforce by new recruits who are themselves relatively old. In the TAFE sector at least, many joined their current employer after the age of 50. This group of older entrants is likely to include people who regard employment in VET as a suitable option for transitioning to retirement. However, the VET sector is likely to require additional skilled workers at the same time that many other industries are doing likewise, from an overall labour force that is growing more slowly, due to population ageing.

Current performance of the VET sector and future challenges

The range of quantitative evidence examined by the Commission suggests that, at present, the VET workforce largely meets the expectations of its clients. These expectations are naturally diverse, and cannot be easily summarised or benchmarked. Students engage in VET for a variety of reasons, not all related to employment or further study. Employers tend to use VET for more homogenous reasons, but their criteria for quality vary. Despite this great diversity of motivations and expectations, satisfaction ratings of VET by students and employers are high. Another, more tangible indicator of performance — employment and further study outcomes — also shows that VET students gain useful skills, that are valued by prospective employers and other educational institutions.

In the medium to long term, however, a confluence of demographic, economic and policy factors will create challenges and uncertainty for the VET sector. These factors include:

- population ageing, that will drive demand for specific skills, while also tightening the overall labour market

- immigration, that has the potential to affect both the demand for, and supply of, skills traditionally sourced from VET

- economic growth and structural change, that will require deeper skills and new skills, including green skills

- the business cycle, and more specific industry cycles, such as in agriculture and the resources sector

- policy targets, that will require delivery to a more diverse and challenging student population.

The impact of these factors on the capacity and capability requirements of the VET workforce is explored in the following sections.

Ensuring VET workforce capacity

At a broad level, the demand-side pressures that are building on the VET sector will only be accommodated if the supply capacity of the VET workforce grows commensurately. That capacity is a function of the number of VET workers and the efficiency with which they operate (influenced by their individual effort and other factors, such as institutional arrangements).

Improving the efficiency and productivity of the VET sector

Given the range of prospective challenges facing the sector, there is a strong case for improving the efficiency and productivity of the workforce through adoption of more contemporary work practices and governance frameworks, particularly in the TAFE sector.

Industrial relations settings that improve workplace capacity and efficiency

In the TAFE sector, existing statewide agreements apply undifferentiated base levels of pay, that vary with tenure and, to a lesser extent, qualifications. These instruments, which are inherited from the schools sector and typically offset low pay with low hours, do not formally distinguish skills in demand from others that are more commonplace. What is more, they are subject to the State and Territory Governments' overarching guidelines for annual pay increases in the public sector. This sets up rigidities that limit the ability of individual TAFEs to vary pay according to skill scarcity and performance, although industry allowances are paid in a number of instances.

The Commission recommends that industrial relations settings in the public VET sector become more tailored and flexible. In particular, there should be agreements

that allow enterprise-level wage flexibility, contemporary performance management frameworks, and flexible employment arrangements suited to the needs of students, employees and employers in diverse circumstances and locations.

The changes recommended by the Commission would enable TAFEs to pay higher wages than currently to some workers. This would be efficient as long as those wages reflected the value to the employer of a particular bundle of skills (including industry currency) and qualifications (including educational). Conversely, TAFEs should have the flexibility to pay some staff lower wages than is currently the case, based on appropriate industry comparators, with a premium for teaching skills.

These changes would also enhance the ability of TAFEs to compete with private and enterprise providers. These two categories of VET provider tend to have greater freedom in setting pay and conditions, under the provisions of their respective awards or agreements (which, for some private providers, means the relevant modern award).

Greater governance and funding autonomy for TAFEs

To a large extent, governance and funding arrangements for TAFEs reflect the objectives and priorities of their government owners. For this reason, TAFEs are often expected to provide 'non-commercial' services for equity reasons, such as maintaining a presence in remote areas where private provision is absent. The Commission regards greater governance and funding autonomy for these organisations as necessary. If they are to respond efficiently to the more competitive environment they now face, TAFEs will increasingly need the ability to pursue and allocate funding in the way that best suits their business models. In this context, the Commission agrees with moves to give TAFEs a statutory authority governance model. It further recommends that, when TAFEs undertake non-commercial activities at the request and direction of governments, they should be compensated via explicit, on-budget community service obligations payments. These payments should be contestable by private providers. This would promote greater transparency and competitive neutrality in the provision of VET.

Facilitating capacity building in the Indigenous VET workforce

The study has considered options for increasing the contribution that the VET sector makes to improving employment outcomes for Indigenous Australians. One clear avenue for achieving this goal is through lifting the participation of Indigenous people in the VET workforce, so that they can bring cultural awareness and community involvement to the training of Indigenous students. The Commission

has identified a number of strategies that have met with success in this respect, both in some RTOs and in other industries. These strategies include Reconciliation Action Plans, cadetships and ensuring the presence of Indigenous staff members on recruitment panels. The Commission considers that, if adopted more widely, these strategies would be of benefit to the broader Indigenous student population. It recommends, further, a role for the National VET Equity Advisory Council in the collection and dissemination of evidence on 'what works' and 'what does not work'.

Enhancing VET workforce capability

The dual professional identity of VET trainers and assessors means that they should bring work experience, as well as teaching expertise and qualifications to the classroom, the workshop or online. Accordingly, the Australian Quality Training Framework (AQTF), complemented by NQC determinations, mandates that trainers and assessors:

- hold vocational qualifications at least equal to that which they are delivering
- hold a TAE40110 Certificate IV in Training and Assessment (TAA) (or demonstrated equivalent competencies) or, if not, be supervised by someone who does when engaged in training
- can demonstrate industry currency directly relevant to their training or assessment role
- continue to develop their capability.

These are expressed as requirements facing the employer, sanctionable via deregistration. The extent to which trainers and assessors in RTOs comply with these requirements is variable, at present.

Improving VET workforce industry knowledge and currency

The majority of trainers and assessors have formal, post-secondary qualifications. About 20 per cent of VET trainers and assessors hold postgraduate qualifications, and about 40 per cent have undergraduate or Diploma qualifications. Thus, it is likely that AQTF requirements for vocational (as opposed to educational) qualifications are met by a majority of VET trainers and assessors, either formally or informally through RPL and RCC.

The actual level of industry currency is more difficult to measure, and evidence suggests that it is uneven. An estimated 20 per cent of VET trainers and assessors

have a second job outside the education industry, which might assist with maintaining currency if that other job is relevant to their area of delivery.

Tenure in the sector is also a factor. A common view, supported by some evidence, is that newer VET recruits are more likely to be at the cutting edge of their industry and occupation, while longer-tenured practitioners without recent industry experience sometimes have outdated skills. However, many VET workers with long tenures have, over time, built strong professional networks that contribute to their industry currency.

Professional development can provide an opportunity for those with long tenures in VET, and others, to ensure that their industry currency remains contemporary (addressed below).

Industry currency can also be delivered in a team-teaching environment, through the use of industry experts. Regulatory barriers to the activity of these experts — including mandatory qualifications (addressed below) — should be kept to a minimum.

More VET delivery by enterprise RTOs would guarantee industry currency of trainers and assessors and, as such, could contribute to a better match between supply of and demand for some skills. Nevertheless, in-house delivery of accredited VET training will never be regarded as core business by a majority of firms, and comparative advantage and economies of scale and scope will continue to underpin the existence of a standalone VET sector.

Improving VET workforce educational capability

In contrast to the widespread holding of vocational qualifications, a significant proportion of VET trainers and assessors do not possess the Certificate IV in TAA or equivalent formal educational (pedagogic) qualifications. That proportion could be as high as 40 per cent in the TAFE sector, and is likely to be higher still in the non-TAFE sector.

The rapid expansion of the VET sector in recent years, through the development of private and enterprise provision, has left the penetration of formally acquired training and assessment skills within the workforce lagging.

In terms of statutory compliance, the existence of under- or un-qualified staff is explained by the fact that the AQTF and NQC do not mandate the Certificate IV in TAA (or equivalent) for trainers and assessors, as long as these staff are supervised by someone who holds the Certificate (or equivalent). This is notwithstanding the

fact that this qualification was originally designed to provide a minimum teaching standard for *all* trainers and assessors.

The relative paucity of educational skills of VET trainers and assessors might prove to be an impediment to achieving the aims of governments to lift the educational attainment of the population in general, and of some equity groups in particular. The VET workforce will increasingly need to assist a significant proportion of VET learners who have poor foundation skills, but many trainers and assessors might be found wanting in delivering to these groups.

At the other end of the spectrum, the emergence of a tertiary sector offering both VET and higher education qualifications will generate a greater demand for VET trainers and assessors to deliver more theoretical and high-level curricula. The Commission has identified capability gaps affecting the VET workforce in this area.

Other gaps identified by the Commission are in regard to: assessment of RPL and RCC; ICT skills; skills in workplace-based delivery; and management and leadership.

Adequacy of the Certificate IV in TAA

Study participants were divided on the adequacy of the Certificate IV in TAA in ensuring educational capability of the VET workforce. Some did not regard this qualification as representing a suitable minimum standard. Many more agreed that the qualification, *when taught well*, represents an adequate entry-level standard for VET training and assessing, and provides a solid basis on which other skills can be built. This view is supported by a recent survey of the opinions of graduates of the qualification.

Those participants who saw value in the Certificate IV in TAA nonetheless differed in relation to whether the qualification sets a sufficient standard for *all* VET practitioners. Specific concerns were raised about the suitability of the Certificate for people delivering higher qualifications or to disadvantaged learners. Alternatives proposed by participants to improve the overall quality of delivery included the mandatory holding of a Diploma in TAA or of higher-education VET teaching qualifications.

Evidence for or against such proposals is elusive, partly because there are no unequivocal indicators of teaching quality in VET. Most researchers have concluded that students are reasonable judges of teaching quality, so that surveys of student satisfaction available for the VET sector provide a good, if partial, indication about the quality of the teaching delivered. Responses to these surveys

are generally positive. Responses to surveys of student destinations are equally positive and can be useful as performance indicators, despite some mismatch between training areas and subsequent jobs worked.

An ideal indicator of teaching quality, that would incorporate student test scores and destinations data over time, is unavailable for VET. The Australian and international literature on the schools sector is much richer. However, despite an extensive search of that literature, the Commission was unable to find robust quantitative evidence that the teaching qualifications of teachers have much impact on the quality of student outcomes. The Commission recommends, therefore, that the NCVER conduct a quantitative analysis of the relationship between VET teachers' qualifications and teaching quality, including at different levels of qualification delivered by teachers.

Pending such analysis, the Commission reiterates the conclusion reached in its draft report that, despite some gaps in design and coverage, the Certificate IV in TAA, when well taught, represents a satisfactory minimum qualification for *all* VET practitioners. It should be obtained within two years of commencing employment as a VET practitioner. It should also be seen as a foundation on which further capability development can be built.

Existing practitioners who do not hold the Certificate should obtain it — through formal study or an RPL process — within two years of a National Quality Council determination mandating it.

Workplace trainers and assessors who operate under the supervision of dedicated workplace trainers and assessors should have completed the Skill Set relevant to their role.

Industry experts should be encouraged to hold a Skill Set relevant to their role. However, it should not be mandatory, provided that any training these workers deliver is supervised by someone with the Certificate IV in TAA.

In recommending different qualification requirements for different groups of VET trainers and assessors, the Commission has aimed to achieve a suitable balance between ensuring quality delivery and enabling effective VET workforce recruitment and diversity.

Supervised delivery as part of the Certificate IV in TAA

In its draft report, the Commission recommended an increase in the number of supervised delivery sessions in the Certificate IV in TAA to at least four, two of

which were to be subject to external assessment. Study participants who commented on this proposal were, in the main, supportive of increased practicum and assessment opportunities, but critical of the need for external assessment. The Commission has maintained its support for four sessions, but agrees that, before an external assessment is considered, more evidence is needed about the quality of the work of the RTOs' own staff in assessing their students (addressed below).

RTOs delivering the Certificate IV in TAA

The Certificate IV in TAA constitutes a satisfactory minimum standard only when it is delivered in compliance with the requirements of its Training Package (TAE10 Training and Education) and the AQTF. This is not a foregone conclusion. Successive audits (in New South Wales, Western Australia and Australia-wide) of RTOs delivering the precursor to the current TAA reached a common conclusion that delivery by many organisations was non-compliant in respect to one or more elements of the AQTF. Furthermore, some participants in this study argued that some providers were allowing students who lacked competency to graduate with a Certificate IV in TAA.

A similar view of some VET graduates emerged from the thrust of the anecdotal evidence the Commission has received as part of other inquiries it is conducting into the early childhood development, aged care and disability care workforces (including from firms that are clients of VET). Some participants in these inquiries have argued that the rapid expansion of private VET provision, in recent years, has been at the cost of a loss in quality.

In this study, the Commission has made several recommendations addressing the issue of the quality of delivery by RTOs. They target the delivery of the Certificate IV in TAA, but could be considered in the context of other VET qualifications for which concerns exist.

First, the Commission has recommended that the NQC publish detailed evidence, already collected, about the extent of non-compliance and student assessment deficiencies in the delivery of the Certificate IV in TAA.

Second, the Commission considers that existing auditing activity by state and territory regulators has scope to improve, in some important respects. There is a need for delivery of the Certificate IV in TAA to be one factor taken into account when assessing an RTO's risk profile. Some states have not yet identified the Certificate IV in TAA as a high-risk qualification for auditing purposes, and they should take early action to remedy this deficiency. The forthcoming National VET Regulator will assume some of this responsibility from July 2011.

Third, the Commission has noted that the National VET Regulator will have authority to publish audit information in certain circumstances. The Commission has recommended, in this context, greater transparency of audit results. This would have the joint benefit of incentivising RTOs to focus on their quality of training and assessment, and giving their customers and funders greater confidence in the quality of the products on offer. This outcome should be supported through the publication of suitable RTO performance indicators on the forthcoming *My Skills* website. It is an AQTF requirement that provider-level performance indicators be regularly collected by RTOs. However, not many RTOs publish these indicators and, in some cases, there are persistent doubts about their accuracy. Overall, participants supported the need for greater transparency, but emphasised that Registering Bodies should consult with stakeholders about appropriate information for release. The Commission agrees.

Trainers and assessors delivering the TAA

To overcome some of the currency and capability gaps identified for the specialised group of practitioners who deliver the Certificate IV in TAA, the Industry Skills Council responsible for that qualification recommended that they have at least a Diploma in TAA. Although the Commission acknowledges that a Diploma would address some of the gaps, it considers that this initiative, as a mandatory requirement, would represent an overly costly solution to a problem of indeterminate magnitude. Lower-cost solutions should be explored, in the first instance, such as the acquisition of appropriate Skill Sets, or the setting of appropriate teaching experience requirements, that would create lesser barriers to entry into this occupation.

Professional development to improve VET workforce capability

Professional staff development is an obligation placed on RTOs as a condition of their registration under the AQTF. It is also provided for in most statewide TAFE enterprise agreements. Notwithstanding these requirements and provisions, evidence indicates that engagement of the VET workforce in professional development activities is uneven and ad hoc.

Opportunities for trainers and assessors to improve their teaching ability or industry currency are restricted. Regarding the former, pre-service training aside, VET practitioners do not systematically engage in proven methods for improvement, such as peer assessment or video/audio feedback.

Indications are that development opportunities are especially limited for casuals and newer recruits. In 2010, about a quarter of casual and sessional trainers and assessors had not undertaken any professional development in the preceding 12 months. More generally, trainers and assessors were less likely than other VET professionals to engage in professional development.

The weakness and unevenness of the current professional development effort in VET might explain some of the workforce capability gaps identified by the Commission. Rising capacity and capability demands on the workforce will only exacerbate these gaps.

Participants tended to agree, on the whole, and offered a range of proposals to improve the professional development of the VET workforce. These proposals included: induction and mentoring schemes; higher-level VET teaching qualifications; the adoption of a capability framework; and the elaboration of a national workforce development plan.

What will work?

The Commission considers that both employees and employers have responsibility for professional development. Governments and private providers should review the adequacy and targeting of existing funding for professional development. Incentives could also be provided, within the performance management system, for staff members to acquire additional qualifications in areas that respond to their own perceived needs.

Better evidence and information are needed to support an enhanced professional development effort. There is a key role for the relevant ISC to develop suitable options to address gaps in the VET workforce's skills, and to accurately define the full range of jobs that the sector comprises.

These Commission proposals would go a long way towards fulfilling the expectations of many participants for a national workforce development plan. Nonetheless, participants also saw a role for such a plan to enhance the professionalism and status of the VET workforce, supported by a body similar to the Australian Learning and Teaching Council (ALTC) for higher education.

The Commission, in examining the functions of ALTC and the school sector's Australian Institute for Teaching and School Leadership, concluded that a range of bodies in the VET sector, to a greater or lesser extent, undertake similar roles. A number of the Commission's proposals will strengthen these existing activities. One

function, the development and support of professional networks, could be coordinated on a more systematic basis by the ISCs.

Would practitioner registration help?

In many professions and occupations, including school teachers, registration is the vehicle for mandating and monitoring professional development. A number of participants argued strongly that mandatory registration should also apply to VET practitioners, as currently exists in the United Kingdom. Other participants favoured a form of voluntary registration only. Many other participants expressed their opposition to any registration scheme for VET trainers and assessors.

De facto VET practitioner registration already applies in Australia through existing regulations that specify some key professional requirements for trainers and assessors in RTOs. However, as noted, the legislated requirement of the AQTF that trainers and assessors in RTOs hold the Certificate IV in TAA (or can demonstrate equivalent competencies) is subject to exceptions, for example, for those working under supervision. Moreover, although RTOs are required to demonstrate workforce development to meet their regulatory requirements, compliance with this is not universal. Recommended improvements in the enforcement of current regulatory requirements, together with direct attention to increasing the scale and focus of professional development, should address identified capability deficiencies and achieve the workforce development aims of a registration scheme.

For these and other reasons set out in the full report, the Commission remains of the view that governments should not endorse or contribute funding to a registration scheme for VET trainers and assessors.

VET workforce data and workforce planning

Consistent national data about the size and characteristics of the VET workforce have long been lacking. The private VET sector is particularly poorly served by existing workforce data. The TAFE sector is more data-rich, with administrative collections at both the provider and jurisdictional level. However, they are incomplete, disparate and not widely used or disseminated. Key information is either inconsistent or missing entirely. There is a lack of an agreed national standard for VET workforce data, something that the NCVER is best placed to remedy, in consultation with stakeholders.

Based on such an agreed standard, a new comprehensive collection instrument is needed, with which to better identify and measure the VET workforce, especially

with respect to private sector activity. This instrument should also be designed by the NCVER and implemented in a way that gives providers, regulators and other stakeholders access to an improved evidence base. The instrument should not unduly increase the reporting burden for providers and should be implemented in stages. The Commission anticipates that, in most cases, a requirement for RTOs to supply workforce data would only add marginally to their existing burden, particularly if offset by a rationalisation and consolidation of other VET data collections.

Lack of quality workforce data is an obstacle to effective VET policy making at the jurisdictional and national levels and workforce planning at local and industry sector levels. It also hinders efforts to improve the capacity and capability of the workforce. For example, better information about the qualifications and industry currency of trainers and assessors is needed to inform strategies for their professional development.

Lack of VET workforce data also hinders attempts to investigate the links between workforce characteristics and the quality of the training output. Knowledge about this link might prove a crucial tool in guiding policies designed to enhance the effectiveness of the VET workforce. To achieve this goal, quality workforce data will need supplementation with quality outcomes data, covering both the student and employer experiences with VET. In particular, the Commission has recommended improvements to the employer satisfaction data collected by the NCVER.

More critically for the community, the availability of quality VET workforce data would give peak skills policy advisers such as Skills Australia and the NQC a much clearer view of the future risks and opportunities facing the VET workforce's contribution to Australia's human capital and skills development.

Findings and recommendations

What has the Commission found?

Some characteristics of the VET workforce are known

FINDING 3.2

The VET workforce can be characterised as:

- *having a predominance of dual professionals, with both vocational and educational skills*

- *being older than the wider labour force, as most VET workers gain industry experience before joining the sector later in their working life*

- *having high rates of non-permanent employment, compared to the general workforce*

- *being highly mobile, with over 80 per cent changing jobs within the sector during their career.*

The intentions of many older VET workers to keep working, and the sizeable inflows of new workers into the sector (including older workers), should contribute to the aggregate supply of VET workers in the short and medium term.

FINDING 3.1

Up to 40 per cent of TAFE sector workers who work as trainers and/or assessors do not have the necessary minimum educational qualification for VET practitioners — namely, the TAE40110 Certificate IV in Training and Assessment or an equivalent qualification (noting that it is not a statutory requirement if they are supervised by someone who does). No corresponding estimate is available for the non-TAFE sector, but the figure is likely to be higher.

… but quality workforce data are lacking

Consistent national data about the size and characteristics of the VET workforce are lacking. TAFE administrative collections containing workforce data exist, at both the provider and jurisdictional level, but they are incomplete, disparate and not widely used or disseminated. There is currently no regular reporting of workforce data for the private VET sector. Lack of quality data is is proving to be a significant obstacle to effective policy making and workforce planning at any level, and to efforts to improve the capacity and capability of the workforce.

Current reporting burdens are already extensive for Registered Training Organisations. Any future workforce data collection is likely to increase these burdens only marginally. Moreover, this increase could be offset by a decrease in overall data burdens from rationalising and consolidating existing VET activity collections.

The minimum teaching qualification provides good capability

On balance, the Commission concludes that the Certificate IV in TAA, when well taught, is an appropriate minimum qualification for the development of essential foundation competencies for VET practitioners and dedicated trainers and assessors working within Enterprise Registered Training Organisations. The Assessor Skill Set is an appropriate minimum for practitioners in assessment-only roles. Relevant Skill Sets represent an appropriate minimum for workplace trainers and assessors working under supervision. Industry experts, working under supervision, should be encouraged but not required to obtain a Skill Set relevant to their role.

… but the VET workforce will confront increasing challenges

Over the medium term, in the context of a tightening labour market, the VET workforce will be expected to deliver a greater volume of training, increase the quality and breadth of its training, cater for a more diverse student population, and operate under a more contingent and contestable funding system.

FINDING 2.1

The emerging tertiary sector provides an additional set of pathways and education options for students, including those who experience disadvantage, but it is important that the traditional strengths of the Vocational Education and Training sector not be diminished as a result.

… which may exacerbate existing capability gaps

FINDING 9.2

Considering the educational capabilities of the VET workforce:

- *the delivery of training and assessment to students who might experience disadvantage is an area of considerable exposure for the VET sector in the future*
- *there is considerable scope to improve the dissemination of lessons learnt from innovative programs directed at the needs of disadvantaged students in general, and Indigenous students in particular*
- *there is tentative evidence of capability gaps relating to delivery of higher-level qualifications*
- *there is evidence of a significant capability gap in information and communication technologies skills among the VET workforce*
- *there is evidence of a capability gap in the ability of some VET practitioners and enterprise trainers and assessors to assess Recognition of Prior Learning and Recognition of Current Competency*
- *there is evidence of capability gaps relating to workplace-based delivery*
- *there is evidence of capability gaps among VET managers and leaders.*

FINDING 9.3

Industry currency is not well-researched or understood. Although currency is often equated with industry release, or work in industry, maintenance of currency can occur through a variety of activities. There is evidence of currency gaps in the current workforce, particularly among those who have worked full time in the VET sector for more than 10 years. Professional development systems need to identify and address these gaps.

Many Registered Training Organisations have programs in place to assist Indigenous students, including through the provision of culturally aware tuition. However, few programs have been evaluated, and not all evaluation reports have been made publicly available.

… and will require increased flexibility in the public VET sector

FINDING 4.1

A move towards greater managerial independence for TAFE Institutes is likely to better enable them to respond to the more competitive environment they now typically face. The adoption of a statutory authority governance model for public-sector Registered Training Organisations is appropriate, given the desire for governments to retain both ownership and control, while promoting flexibility and competitive neutrality at the individual provider level.

FINDING 8.1

Statutory wage structures in the TAFE sector take no account of the relative scarcity of industry skills being sought. As a consequence, TAFEs need to rely on industry allowances to attract and retain some VET trainers and assessors with skills in demand. However, their ability to do so is limited by the fact that, at the going rates specified in agreements, other VET trainers and assessors are paid more than is necessary to attract and retain them.

What does the Commission propose?

Greater autonomy for TAFE institutes will improve capacity and flexibility

RECOMMENDATION 8.2

Each TAFE institute should be able to select the mix of employment arrangements, supported by contemporary human resource management practices, that best suits its business goals. This should include industrial relations settings that offer more flexibility, by removing caps on the use of casual staff, prescriptive hours to be worked and undifferentiated wages and conditions.

RECOMMENDATION 4.1

Governments should make explicit on-budget Community Service Obligation payments, to be contestable by both public and private VET providers, to those providers undertaking non-commercial activities at the request and direction of the Governments.

A more culturally aware approach to Indigenous peoples is needed

RECOMMENDATION 8.1

In order to improve delivery to Indigenous VET students, VET providers should attempt to secure the services of more Indigenous VET workers. Possible strategies include ensuring the presence of Indigenous staff members on recruitment panels, signing Reconciliation Action Plans and offering cadetships to Indigenous people studying the Certificate IV in Training and Assessment and other teaching qualifications. Recognising that it is difficult for VET to attract skilled Indigenous VET workers who are also being sought by industry, the VET sector should also put in place strategies to support Indigenous students to complete their studies within the VET sector, to enable their progression into the workforce and encourage their return to the VET sector as trainers and assessors.

RECOMMENDATION 9.2

The National VET Equity Advisory Council should establish a publicly-available database of evaluation reports on programs directed at assisting Indigenous students. This database would provide information on what works well and what does not. This information would assist Registered Training Organisations with developing successful Indigenous programs and would improve the VET workforce's capability in this area.

There is scope to improve the content of the TAE training package

RECOMMENDATION 10.7

Innovation and Business Skills Australia should amend the Evidence Guide for TAEDEL401A (Plan, Organise and Deliver Group-based Learning) to require those seeking to demonstrate competence at the Certificate IV level to prepare and deliver at least four supervised training sessions.

As a matter of priority, Innovation and Business Skills Australia (IBSA) should develop qualifications and Skill Sets so that the TAE10 Training and Education Training Package more completely covers the diversity of roles within the VET workforce, and reflects a full capability framework for the workforce. The Package should then form the basis for advice from IBSA to the sector on continuing professional development options that address capability gaps.

… and the way in which it is delivered

RECOMMENDATION 10.6

To improve the information available to students to assist in their choice of Registered Training Organisation, and to incentivise Registered Training Organisations to focus on quality training and assessment:

- *valid and reliable performance indicator data for Registered Training Organisations should be made public through the My Skills website*

- *Registering Bodies should publish information on audit outcomes for individual Registered Training Organisations.*

The nature of the published performance indicator and audit information should be determined after consultation with industry.

RECOMMENDATION 10.4

The National Quality Council should:

- *publicly release the data collected through the employer survey conducted as part of the National Strategic Industry Audit of the TAA40104 Certificate IV in Training and Assessment, together with the accompanying analysis*

- *commission research into the relationship between Registered Training Organisation compliance, the quality of delivery of the Certificate IV and graduate competence.*

RECOMMENDATION 10.5

The TAE40110 Certificate IV in Training and Assessment should retain its status as a high-risk qualification. Scope to deliver this qualification should be one factor taken into account by a Registering Body in assessing a Registered Training Organisation's risk profile.

Existing gaps in the holding of trainer and assessor qualifications should be remedied

The National Quality Council should amend the Determination of 17 June 2010 to require that demonstration of competencies equivalent to those in the TAE40110 Certificate in Training and Assessment by existing trainers and assessors who do not hold that Certificate, or assessors who do not hold the Assessor Skill Set, occur through a formal Recognition of Prior Learning process.

RECOMMENDATION 10.3

The National Quality Council should amend the Determination of 17 June 2010 to limit the period during which:

- *VET practitioners or dedicated workplace trainers or assessors*
- *workplace trainers and assessors working under the supervision of someone with the TAE40110 Certificate IV in Training and Assessment*

can work without holding the minimum qualification relevant to their roles. That period should last no longer than two years: from the date of the amendment to the Determination for the existing workforce; or, for new recruits, from the commencement of their employment after that date.

RECOMMENDATION 10.1

The Australian Quality Training Framework should be amended to establish the relevant Skill Sets developed by Innovation and Business Skills Australia as the minimum qualification requirement for workplace trainers and assessors working under supervision.

Better coordination, targeting and support of professional development is required

RECOMMENDATION 10.8

Given the wide variation in provisions for professional development within the relevant VET awards and agreements, State and Territory governments should collaborate to explore how Australian Quality Training Framework requirements that trainers and assessors continue to develop their capability can be most effectively met.

Following inter-jurisdictional collaboration on meeting the Australian Quality Training Framework requirements for continuing professional development in their VET workforces, State and Territory Governments should assess the adequacy of funding provisions for this activity. Registered Training Organisations should identify capability needs within their own workforces and target funding accordingly.

RECOMMENDATION 10.11

Governments should not endorse or contribute funding to a registration scheme for VET trainers and assessors.

Governments should improve the quality of workforce data

RECOMMENDATION 7.1

In consultation with other VET stakeholders, the National Centre for Vocational Education Research should develop a National Standard for VET workforce data collection as soon as is practicable.

RECOMMENDATION 7.2

The Ministerial Council for Tertiary Education and Employment should engage the National Centre for Vocational Education Research (NCVER) to develop a comprehensive instrument with which to identify the VET workforce as soon as practicable. This instrument should focus on measuring and describing the workforce. The NCVER should consult with key stakeholders so that the instrument does not unduly increase the response burden for providers. Implementation of this new instrument might need to be staged, to allow providers to adjust to the new requirements. Data from the collection could support the risk analysis and auditing functions of the forthcoming National VET Regulator.

… and better data on client satisfaction with VET are also required

RECOMMENDATION 5.1

The National Centre for Vocational Educational Research (NCVER) should amend the Employers' Use and Views of the VET System survey (SEUV) to allow for more detailed analysis of employers' satisfaction, to be offset by the removal of low-priority questions. The NCVER should include further questions that measure employers' satisfaction with different aspects of the VET system, including the performance of the VET workforce. The NCVER should also modify the SEUV to clarify what satisfaction among Enterprise Registered Training Organisations means.

RECOMMENDATION 9.1

The National Centre for Vocational Education Research should ensure that it collects all the information required to allow the critical determinants of quality training and assessment to be investigated quantitatively. Once that information is available, the Centre should conduct quantitative analysis of the relationship between trainers' and assessors' characteristics and student outcomes, including by level of qualification delivered.

1   Introduction

The Productivity Commission has been asked by the Council of Australian Governments (COAG), through the Australian Government, to undertake a study of the Education and Training Workforce. This request was motivated by the recognition that building the capability and effectiveness of this workforce, particularly for Indigenous people, will be critical to achieving the outcomes agreed in COAG's common strategic frameworks for government action in education and training.

The Commission was asked to examine, in turn, the Vocational Education and Training (VET), Early Childhood Development (ECD) and Schools workforces. This report on the VET workforce is the first of the final reports from this suite of studies. It was informed by submissions from, and consultations with, stakeholders and interested parties.

Final reports on the ECD and Schools workforces, respectively, will be submitted to the Government (and subsequently published) according to the following schedule:[1]

- Early Childhood Development workforce: to the Government in October 2011
- Schools workforce: to the Government in April 2012.

1.1   What the Commission has been asked to do

Under the Terms of Reference, the Commission was asked to give consideration to, and advise on, in relation to the VET workforce:

- demand for the workforce's services, with particular regard to the skill sets required to meet society's current and future needs for education and training
- the ongoing supply of workers, in terms of numbers, knowledge and skills
- the workforce composition that most effectively and efficiently delivers desired educational and training outcomes
- appropriate directions and tools for workforce planning and development

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[1] People with an interest in these workforces are invited to visit the Productivity Commission's website (www.pc.gov.au, under 'Projects').

- factors of notable significance for that particular workforce.

In addition, the Commission was required to consider:

- whether current sectoral and jurisdictional boundaries between the various education workforces limit innovation and flexibility in meeting the demand for education and training

- factors that impact on building Indigenous workforce capability.

Although the Commission was not asked to undertake a separate study of the higher education workforce, a wide-ranging review of the VET workforce needs to deal with aspects of the VET–university interface. Such aspects include career pathways for staff, overlaps in the qualifications offered and any implications of joint provision or other forms of collaboration between the sectors.

The Terms of Reference require the Commission to focus on aspects of the operation, performance and governance of the VET workforce. However, as the VET sector and its workforce are inextricably linked, this report also comments on selected features of the overall VET sector, where they provide context for the study of the workforce.

1.2 VET and human capital

Australia is confronting a number of economic and demographic challenges. Some of the key challenges are summed up in the following quotes:

> Most immediately, as we look towards economic recovery, employers are already raising concerns about the risk that our economic growth will be constrained once again because of skill shortages. Looking further ahead, we will need to deepen our skills and lift productivity to enable us to successfully adapt to change and maintain our competitive advantage and a high standard of living, as the emerging economies in our region further advance and industrialise. (Skills Australia 2010a, p. 1)

> The more we develop the skill level of each worker, the higher the potential productivity of the labour force. A highly educated and skilled workforce supports innovation, the implementation of technological advances and the accumulation of physical capital. … The level of educational and skills attainment also significantly influences an individual's future labour force participation and earnings potential. Australia must continue to build on our skills base to maintain a higher standard of living as the population ages. (Treasury 2010, p. 12)

A number of recent economic analyses have reached a similar conclusion, namely that Australia's human capital — the knowledge, skills and abilities embodied in its population — holds the key to advancing its economic and social prospects. For this

reason, human capital has underpinned a significant proportion of recent policy initiatives, both at a national and state and territory level.

In conjunction with other education sectors, the VET sector plays a key role in building Australia's human capital. Its workforce, aided by infrastructure and equipment, provides students with new or improved competencies that can make them more valued, productive and innovative workers.

1.3   Why focus on the VET workforce?

In a high-skilled, labour-intensive industry such as education and training services, the quality of the output is closely linked to the quality of the workers responsible for delivering the services. Writing about the Technical and Further Education (TAFE) segment of the VET sector, one participant noted:

> … the sustainability of the TAFE system is ultimately dependent on the competence of the TAFE workforce, and … staff competence will remain the single most valuable source of future value … (Australian Education Union, sub. 34, p. 17)

The central role of the workforce is reflected in the share of labour costs in the sector's total operating costs. In 2009, for example, employee costs amounted to 69 per cent of all operating expenses of state and territory training departments (NCVER 2010b).[2]

The VET workforce, like the early childhood, schools and universities workforces, is primarily comprised of 'educators'. The role of its members is complex, multi-dimensional and resists generalisations. Some of the tasks they fulfil are common to all educators: impart learning; motivate and encourage students to develop; use teaching aids and materials effectively; assess students fairly and accurately; collaborate with other educators; and maintain and develop their own educational skills.

However, unlike most of their counterparts in other education sectors, VET teachers, trainers and assessors are 'dual professionals', with a range of capabilities variously recognised in either the education or industry spheres. In addition to their educational capabilities, these professionals are expected, if not required, to have strong industry currency — that is, to be in touch with the day-to-day practices, solutions and challenges of industry work. A close relationship with industry is an intrinsic quality of good VET trainers and assessors. It enhances the relevance and value of the competencies that they impart to their students. Moreover, by bridging

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[2] This number primarily reflects the operations of the TAFE sector. Operating costs exclude grants and subsidies paid, and payments to non-TAFE providers for VET delivery.

the gap between education and industry, these trainers and assessors can facilitate the successful integration of their students into the labour force.

Importance of the VET workforce in special settings

The VET workforce is particularly well placed to contribute to social inclusion, for both young people and adults.

VET trainers and assessors operate in a wide variety of settings, from educational institutions to workplaces and community organisations. Their delivery might even take place in correctional facilities or mobile classrooms in the bush. VET trainers and assessors tend, as a result, to be very conscious of their students' environments, cultures and constraints. They are frequently exposed, in the normal course of their daily work, to students from very diverse backgrounds — for example: Aboriginal and Torres Strait Islander peoples; students from a non-English speaking background; migrants; students from low Socio-Economic-Status households; and students living in rural or remote regions. They can also encounter students with very different motivations for studying — for example, 'second-chance' learners who lack the foundation skills necessary to gain employment or undertake further study.

Such disparate groups are a teaching challenge for the VET workforce. To achieve satisfactory outcomes, trainers and assessors must be sensitive to the distinctive needs of individuals, and also the setting in which the teaching is taking place. When this occurs, there can be significant payoffs in terms of positive employment, social and civic outcomes.

1.4   Conduct of the study

In keeping with the *Productivity Commission Act 1998* (Cwlth), the Commission has conducted this study in an open, transparent and public manner, and with an overarching concern for the wellbeing of the Australian community as a whole.

The Commission published an Issues Paper and a Draft Report, and met with a wide range of individuals and organisations with an interest in matters contained in the Terms of Reference, including: VET providers and practitioners; industry bodies; unions; professional groups; academics; and Australian, State and Territory Government officials. Visits were conducted throughout Australia, including in regional and remote areas.

Roundtable discussions were held with invited stakeholders, in Melbourne, Canberra and Sydney, to further assist with analyses contained in the draft report.

A total of 115 submissions were received, from a range of participants with an interest in the VET sector. Appendix A provides details of the individuals and organisations who participated in the study through submissions, visits and/or participation at roundtables.

The Commission expresses its gratitude to all those who contributed to this report.

1.5 Other research initiatives in this area

As asked to by the Terms of Reference, the Commission has taken account of recent work of relevance to the VET workforce, and has engaged with the researchers as appropriate. The surveys and studies consulted have included:

- *Quality of Teaching in VET* (2010). A joint project between the Department of Education, Employment and Workplace Relations (DEEWR), the Australian College of Educators and the LH Martin Institute at the University of Melbourne. The purpose of this project is to make recommendations on ways to improve the quality of VET teaching, particularly as it affects student experiences and outcomes.

- *VET Leadership for the Future: Characteristics, Contexts and Capabilities* (2010). A joint project between the LH Martin Institute and the Australian Council for Education Research. This study, based on a survey of practising VET leaders, examined the contribution VET leaders make to learners, industry and society, and ways in which that contribution can be enhanced.

- *Creating a Future Direction for Australian Vocational Education and Training* (2010). This discussion paper, produced by Skills Australia, underpinned a consultation process, which began in October 2010. The process sought feedback on a range of issues regarding VET, through public meetings and submissions. Following these consultations, Skills Australia will make recommendations to the Australian Government in early May 2011.

- *State of our TAFEs Survey Report* (2010). This report summarises the results of an online survey of TAFE employees, undertaken by the Federal Office of the Australian Education Union in February–March 2010.

- *Education Industry Survey* (2010). This survey of the private VET industry was undertaken for the Australian Council for Private Education and Training by WHK Horwath. The survey ran between May and June 2010.

- *Profiling the Enterprise RTO* (2009). This project was funded by DEEWR and conducted by the Enterprise Registered Training Organisation Association

(ERTOA) in 2009. It included data collected during the second half of 2009, using web-based and face-to-face surveys.

- *TAE10 Skill Sets Project* (2010). A joint project between Innovation and Business Skills Australia and ERTOA. The aims of the project were to evaluate and report on the relevance and potential application of the Skill Sets contained in the TAE10 Training Package as VET workforce development tools within enterprise Registered Training Organisations.

- *A Shared Responsibility: Apprenticeships for the 21st Century* (2011). The final report from the expert Panel tasked with advising the Government on evidence-based reform options for the Australian Apprenticeships system.

- a wide range of other reports and studies, including from overseas sources such as the Organisation for Economic Co-operation and Development and the European Centre for the Development of Vocational Training.

In addition to the above, this study has benefited from data collected in a survey of VET employers and employees, undertaken by DEEWR. This survey, primarily intended to inform DEEWR's submissions to this study, was conducted Australia-wide between 13 September and 1 October 2010. The Commission contributed to the design of the survey questions and the sampling frame. The survey was formally endorsed by the following peak bodies: Community Colleges Australia; the Australian Council for Private Education and Training; the Enterprise Registered Training Organisation Association; the Australian Education Union; and TAFE Directors Australia.

1.6   Structure of the report

The remainder of this report is structured as follows:

- Chapter 2 gives an overview of the VET sector, setting the scene for the subsequent focus on the VET workforce. This chapter also introduces a definition of the VET sector for the purpose of this study.

- Chapter 3 seeks to identify, measure and describe the VET workforce, including through a proposed taxonomy of workers. The chapter also provides an analysis of career pathways in VET.

- Chapter 4 explores the reasons why governments become involved in the VET sector and the nature of their involvement. This is followed by a discussion of the increasing role of market forces in the sector.

- Chapter 5 discusses expectations of the VET sector held by students and employers, ways in which these key stakeholders attempt to influence the sector, and the extent to which their expectations are being met.

- Chapter 6 conducts an environmental scan of the demand and supply forces likely to impact on the VET workforce in the medium-to-long term. Forces originating both from within and outside of the VET sector are examined.

- Chapter 7 contains a discussion of workforce planning and data availability.

- Chapter 8 examines the areas of capacity and efficiency. This includes an analysis of issues affecting attraction and retention in the VET sector, followed by recommendations for reform to enhance productivity and flexibility of the VET workforce.

- Chapter 9 lays the groundwork for consideration of reforms relating to capability in chapter 10. It discusses the capabilities needed by the VET workforce, describes the institutional settings relevant to capability and provides a summary of research evidence on the characteristics of trainers and assessors that potentially influence their effectiveness. It then reviews and analyses the evidence on capability gaps within the workforce.

- Chapter 10 builds on the information contained in chapter 9 to make wide-ranging recommendations designed to enhance the effectiveness of the VET workforce, including recommendations about the minimum requirements placed on VET trainers and assessors and on RTOs.

- Chapter 11 concludes by drawing together the key recommendations formulated in the preceding chapters, and advising on suitable timing and sequencing for the implementation of these recommendations.

2   The VET sector

Key points

- The Commission limits its study of the VET sector to include only the activities of Registered Training Organisations.

- The best available data are for publicly-funded VET provision, with gaps in available information on fee-for-service provision.

- The VET sector is characterised by diversity in ownership, funding, course offerings, student profiles, location and delivery modes.

- VET plays a prominent role in Australian education, with 1.7 million students enrolled in the publicly-funded VET system and many more as fee-for-service students in the private sector. There are almost 5000 Registered Training Organisations.

- The emergence of a tertiary sector that includes VET offers the potential for better pathways between the VET and university sectors, but risks compromising the traditional strengths of the VET sector.

This chapter describes Australia's Vocational Education and Training (VET) sector, and its role within the education system. It also examines the sector's diversity and complexity, and proposes a definition of the sector. This definition will be used to identify the workforce included in the scope of this report.

2.1   Origins of the VET sector

VET has traditionally been the responsibility of State and Territory Governments. The first VET institutions arose in the mid-to-late nineteenth century, in the form of mechanics' institutes, schools of mines, and technical and working men's colleges. The VET arrangements in each jurisdiction drew common inspiration from the British arrangements of the day. In particular, a large emphasis was placed on the apprentice model (the development of which is described in box 2.1) and the provision of VET through trade-based technical colleges. Despite these common origins, the development of each state's system of VET occurred in an autonomous

manner, according to their different social, economic and political characteristics (Goozee 2001).

In the 1970s, state political pressure for greater financial support of technical education led to growing Commonwealth involvement. A major milestone in this period was the 1974 report by the Australian Committee on Technical and Further Education, chaired by Myer Kangan, the then-deputy secretary of the Department of Labour and Immigration. The 'Kangan Report' put Technical and Further Education (TAFE) on the national agenda. Although TAFE remained the responsibility of the states and territories, substantial Australian Government funding was injected into the system and several national bodies were established around that time (van der Linde 2007). Guthrie (2010a) points to this era as not only the genesis of the TAFE system, but also of reform of the VET workforce. Just four years after Kangan, the Fleming report of 1978 initiated the first discussion of pre-service VET teacher training. This report resulted in requirements for teachers (in most jurisdictions) in this period to hold Diploma- or Graduate Diploma-level education qualifications (Guthrie 2010a). A more detailed history of VET teaching qualification requirements is provided in chapter 9.

The TAFE system in the era of the Kangan Report was entirely publicly-funded, and the focus of policy was firmly confined to government provision of VET. This began to change in the late 1980s, when the concept of a 'training market' emerged within the Australian Government's microeconomic reform strategy (Anderson 1997). The Deveson Review of 1990 was the first in a series of reviews that recognised a need to improve the efficiency and effectiveness of the training system. It recommended the development of a more open and diverse training market, comprising providers in the public and private sectors (O'Keefe and Dollery 2006). The debate around a competitive market for VET was also heavily influenced by the National Competition Policy Review (Hilmer 1993).

Box 2.1   History of apprenticeships in Australia

The history of apprenticeships in Australia goes back to the establishment of the colony of New South Wales in 1788, which adopted British law relating to masters and apprentices. After federation, each state adopted its own apprenticeship laws, distinct from, but still based on, the British laws of the time. Apprenticeships in the nineteenth century (and for much of the twentieth), were typically governed by an agreement between employers and employee unions, without direct government oversight or funding. The apprenticeship was served entirely on the job and the apprentice was considered qualified after serving a set time, rather than by demonstrating competence.

In 1973, the Australian Government introduced the National Apprenticeship Assistance Scheme (NAAS), which provided financial assistance to encourage employers to take on first-year apprentices, and living away from home allowances for apprentices from country areas. It was the first time that the Australian Government had injected significant funding into apprenticeship and trade training, establishing a precedent that continues to this day.

State Governments, at the time, primarily administered apprenticeships, concentrating on servicing advisory committees and resolving disputes between employers. The Kangan Report of 1974 strengthened the role of the states, as it recommended substantial funding for state-based technical and further education (TAFE) institutions to upgrade facilities and improve the learning process. These TAFEs played a critical role in improving facilities for trade training and apprenticeships.

In 1977, the Australian Government replaced NAAS with the Commonwealth Rebate for Apprentice Full-time Training (CRAFT) scheme, which increased employer funding by providing rebates on wages lost when apprentices attended approved off-the-job training. This reform encouraged attendance of apprentices at off-the-job training facilities, and helped move the system away from one which was based solely on on-the-job experience. CRAFT also included bonuses to encourage employers to take on additional apprentices.

The 'Kirby Report' of 1985 extended this source of funding to trainees. Traineeships combined learning and working in a way similar to apprenticeships, but over a shorter time period and in non-trades occupations. Subsequent reforms combined apprenticeships and traineeships under the umbrella title of 'New Apprenticeships' in 1998. The New Apprenticeships arrangements introduced Training Packages and User Choice of training provider.

More recent reforms have aimed to increase study in areas that have been identified as suffering skill shortages (those listed on the National Skills Needs List). Study in the identified areas is encouraged by providing payments to selected groups such as: adult apprentices (people over 25); people in rural and regional areas; people who recommence discontinued apprenticeships; and employers that encourage their workforce to up-skill to the Diploma or Advanced Diploma level.

Sources: Ray (2001); DEEWR (2010a).

Gradually, the focus of policy began to shift from TAFE to VET, where VET was defined as encompassing public, private and community education and training, as well as work-based training. TAFE began to be regarded as just one part of Australia's VET system (Goozee 2001). Further steps were taken in this direction with the establishment of the Australian National Training Authority (ANTA) in 1992, which aimed to introduce greater competition between suppliers of VET. ANTA's first National Strategy document (in 1994) entitled *Towards a Skilled Australia* introduced the first contestable funding arrangements (Harris et al. 2006), and provided the policy base for the introduction of User Choice in 1998 (Selby-Smith 2005). Guthrie (2010a) argues that a larger role for private and community providers was one motivation for loosening regulation on the training requirements for commencing VET teachers. The themes of contestability, competition and User Choice are taken up again in chapter 4.

The emergence of a nationally consistent VET sector

At the same time as policy was encouraging growth in private provision and contestability, steps were being taken towards national consistency in the VET system. In 1993, education ministers endorsed the Australian Qualifications Framework (AQF), which was designed to be a 'comprehensive, nationally consistent … framework for all qualifications in post-compulsory education and training' (AQF Advisory Board 2007, p. 1). Any VET institution wishing to accredit or deliver courses under the AQF was, and still is, required to become a Registered Training Organisation (RTO).

The Australian Quality Training Framework (AQTF) was introduced in 2001. Its role is to benchmark and validate the activities of RTOs. At the core of the AQTF are mechanisms that promote the national recognition of qualifications awarded by all providers, and seek to assure the quality of VET provision. The National Quality Council (NQC) oversees quality assurance, and ensures national consistency in the application of the AQTF standards for the audit and registration of RTOs, is. Current institutional settings in the VET sector are examined in greater detail in appendix E.

Competency-based training and Training Packages

Much of the national system of VET regulation described above is underpinned by the concept of competency-based training. The National Centre for Vocational Education Research (NCVER) defines competency-based training as 'training which develops the skills, knowledge and attitudes required to achieve competency standards' (NCVER 2008, p. 27), where competency is 'the consistent application

of knowledge and skill to the standard of performance required in the workplace' (NQC 2009b, p. 6).

The VET sector first moved to competency-based training in 1987, as part of the National Training Reform Agenda (Guthrie 2009). The desire to move away from a provider-driven approach to one based on the attainment of competency standards set by industry was a key motivation (Misko and Robinson 2000). In 1990, the National Training Board was established, with responsibility for ratifying vocational competency standards (as set out in Training Packages). Ministers set a target of substantial progress towards the implementation of competency-based training by December 1993 (Guthrie 2009). However, implementation remained patchy until the introduction of the National Training Framework (NTF), incorporating the AQF (Misko and Robinson 2000). The proportion of TAFE students enrolled in accredited Training Packages rose from 9 per cent in 1999 to 57 per cent in 2006 (Ryan 2011).

Under the NTF, the competency standards set out in Training Packages, provide national competency-based qualifications. They are developed and maintained by industry, through Industry Skills Councils, and endorsed by the NQC (appendix E). In addition to the nationally-applied packages, some enterprises develop their own (for example, Woolworths, Kodak, Qantas and World Vision).

2.2 Defining the sector

Any effective definition of the VET sector depends critically on the types of training that are 'ruled in' or 'ruled out'. At a conceptual level, any training of vocational relevance (that is, employment related) could be considered to form part of the VET sector. A more restrictive approach is one that would focus only on accredited training, that is, courses leading to AQF qualifications. Reflecting this potential range, some stakeholders equated VET with the delivery of accredited training, while others took a much broader view (box 2.2).

The Commission explored a number of possible definitions. Key considerations were: first, the extent to which the policy advice contained within this report might be applicable to those ruled in or out by the definition chosen; and, second, the extent to which the data available matched that definition. As an example of the dilemmas the Commission faced, any workforce policy reform directed at RTOs providing accredited training would inevitably impact on RTOs delivering unaccredited training, since they are often one and the same. Further, were the Commission to restrict its definition of VET to accredited training, available

statistics on the VET sector do not differentiate between the accredited and unaccredited offerings of RTOs, making it difficult to identify accredited activity.

Box 2.2   Stakeholder views on definitions of the VET sector

There can be subtle variations in the definition of the VET sector:

I suggest the best compromise for Australia is to define vocational education as all education leading to a qualification offered at levels 1 to 6 (advanced diploma) in the new Australian qualifications framework except the senior secondary certificate of education. (Moodie, sub. DR64, p. 2)

[VET comprises] post-compulsory education and training, excluding degree and higher level programs delivered by further education institutions, which provides people with occupational or work-related knowledge and skills. VET also includes programs which provide the basis for subsequent vocational programs. (NCVER 2008, p. 77)

[L]imit the study to the VET workforce delivering only accredited training although there are some exceptions … namely foundation skills training and courses tailored to the needs of individual firms [and] 'non-accredited training with vocational intent' (i.e. training with capacity to facilitate pathways to recognised VET qualifications and improved labour market outcomes). (DEEWR, sub. 60, p. 6)

[The Commission should consider] VET courses leading to accredited qualifications … [and] also include unstructured, informal and on-the-job training and assessment … (Manufacturing Skills Australia, sub. 22, p. 4)

The Commission has limited its study of the VET sector to provision (accredited and unaccredited) by TAFEs, private RTOs, enterprise RTOs (ERTOs) and Adult Community Education (ACE) providers, and accredited, VET-specific activity in the schools and higher education sectors (table 2.1). VET activity, under the Commission's definition, is undertaken in all instances by an RTO.

Table 2.1   **VET activity in Australia[a]**

	Accredited training by sector of accreditation			Unaccredited training
	Schools	VET	Higher education	
Registered training organisations				
Higher education institutions				
TAFEs, private RTOs, ERTOs and ACE providers				
Schools				
Non-registered training organisations				

a The area shaded in grey illustrates the Commission's definition of the VET sector. The area shaded in black might be vocational in nature, but is not regarded as VET for the purposes of this study.

Some participants, such as Australian Industry Group (Ai Group), stressed the importance of all types of vocational training, in all types of setting:

> … we wish to reiterate the importance of informal and non-formal learning in the workplace which is acknowledged in the draft report … (sub. DR88, p. 4)

The Commission agrees that workplace-based, unaccredited training is no less important than that provided by an RTO. The definition adopted by the Commission is not meant to circumscribe the sector for other researchers or policy makers. Rather, it is intended to communicate what activity is 'in scope' for this report. The central role of RTOs in government policy and regulation makes them particularly pertinent to the Commission's analysis. Only RTOs can:

- deliver accredited courses and qualifications

- apply for Australian, State and Territory Government funding

- register on the Commonwealth Register of Institutions and Courses for Overseas Students to provide courses to overseas students (DEEWR 2010j).

In sum, the Commission does *not* include within its definition of the VET sector:

- Informal, largely on-the-job training, delivered or purchased by firms from non-RTOs. This training often does not provide skills to employees that are transferable to other firms. For example, training in the use of a firm-specific application of a software package. This is not to diminish the importance of such training for the commercial interests of these enterprises (or the productivity of their workers), but the lack of recognition and oversight within the formal training system takes it outside the scope of the policy recommendations put forward in this study

- Courses with a leisure or hobby focus. These courses are not vocational in the sense of being employment-oriented.[1]

Data availability further constrains the extent to which the Commission can fully consider the VET sector as defined (appendix B). Although the Commission has chosen a definition of the VET sector that includes all RTOs, the scope of the best available data on the activity of the sector, provided by the NCVER, only covers the publicly-funded VET system (figure 2.1). The 'publicly-funded VET system' includes all activity by government and ACE VET providers (regardless of funding source), as well as publicly-funded VET delivered by private providers. This terminology is used throughout this report.

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[1] A difficulty arises, in that some VET trainers and assessors might simultaneously or sequentially deliver training with a vocational purpose, and training with a hobby or leisure focus. The data do not permit a distinction between the two forms of delivery by the same practitioner.

2.3 The VET sector today

VET within the education sector

Australia's VET sector is one of four education sectors, along with early childhood development, schools and higher education. Traditionally, VET is undertaken after completing secondary school in preparation for work or further study. However, a large number of students in the VET sector do not follow this typical path. About 5000 VET providers offer a diverse range of content to suit the needs and circumstances of VET students.

There is no definitive figure for the total population of VET students in a given year. The closest Australia has to an official count is the NCVER's figure of 1.7 million VET students in 2009 (table B.4). However, as mentioned, the NCVER only reports on activity in the 'publicly-funded VET system' and does not, therefore, capture privately-funded VET delivered by private providers. The most recent estimate of this activity comes from a survey conducted by the Australian Council for Private Education and Training (ACPET), which reported that about 1.5 million full-time-equivalent students were studying in the private VET sector (including publicly-funded places) in May–June 2010 (ACPET 2010a unpublished).

Although the total VET effort is not able to be measured with precision, this does not diminish the significant contribution the VET sector makes to education and training in Australia. By way of comparison, in 2008:

- the higher education sector educated about 1.1 million students, enrolled with 114 providers (DEEWR 2010g)

- the schools sector educated about 3.5 million students in 9500 schools (ABS 2009e).

Australians have a high participation rate in VET. Cross-country comparisons by the OECD rank Australia ninth in rates of VET participation for secondary students, and fifth for post-secondary students aged 18–24 (Field et al. 2009).

Figure 2.1   **The Commission's definition of the VET sector**
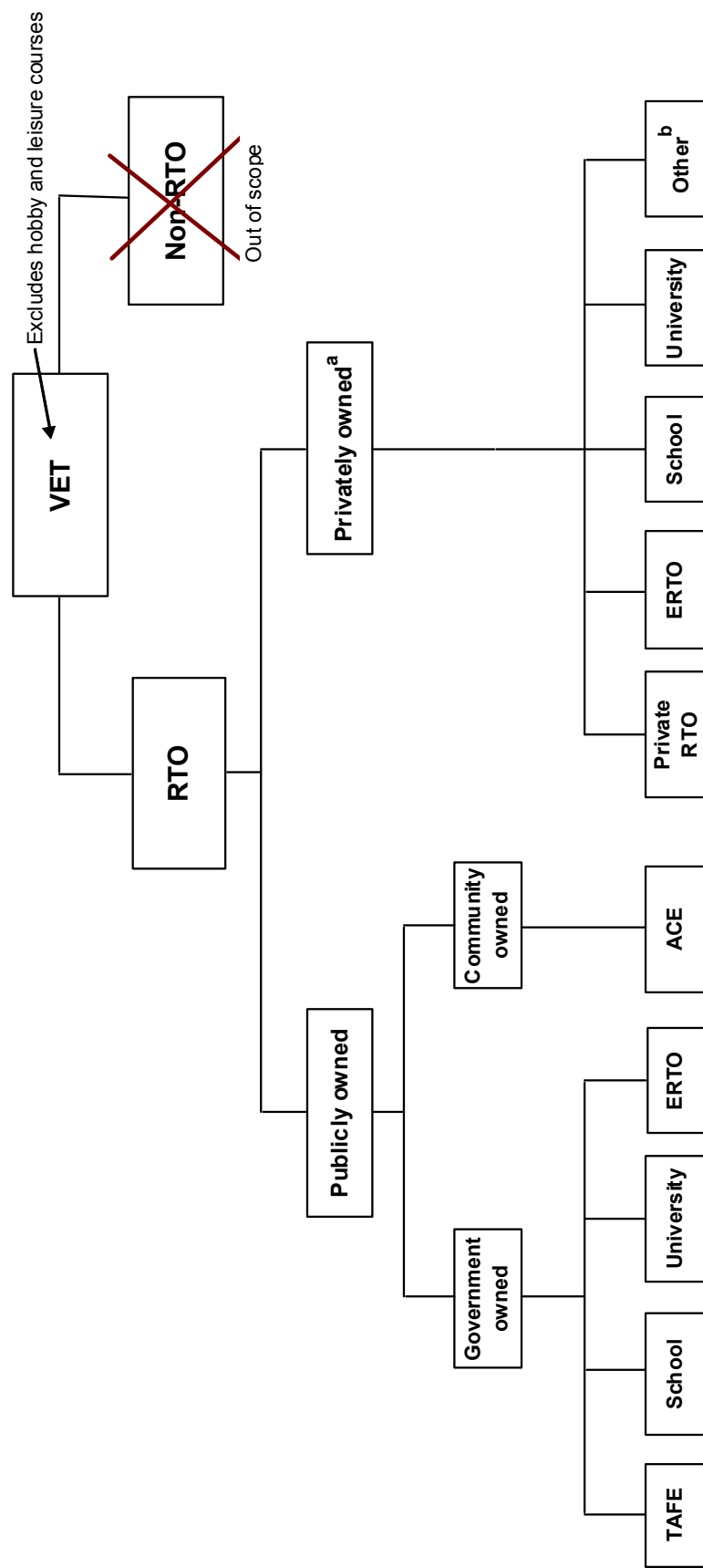
a The fee-for-service and enterprise funded activity of these RTOs is in scope but is not captured by accurate data. **b** Includes industry and professional associations and equipment manufacturers

Diversity of the sector

The diversity of the VET sector is apparent in a number of dimensions, including ownership, funding, course offerings, student profiles, location and delivery.

Diversity of ownership

Almost 5000 RTOs, both public and private, deliver VET today. In the public sector, there are 59 TAFEs and polytechnics delivering in over 1300 locations, 345 schools, 11 universities,[2] 423 ACE providers, and 112 government entities such as the Australian Defence Force. In the private sector, VET is delivered by 3147 private RTO providers that specialise in education (including group training organisations), alongside 585 private firms operating in other industries (such as professional and industry associations) and ERTOs. A complete list of RTOs by type is provided in table B.1.

The number of private RTOs has grown rapidly since 2005, when they numbered about 2500 (DEEWR unpublished).

Diversity of RTO funding

The diverse ownership arrangements in the VET sector are matched by a diverse range of funding sources, with funding often delivered by different parties. Even though all RTOs are accredited by government, they are not all funded from public sources. Some private RTOs, including many delivering to overseas students studying in Australia, rely exclusively on the payment of fees by students. The training provided by ERTOs, on the other hand, is largely funded by the enterprise itself, at no cost to the employees undertaking the training. At the other end of the spectrum, many ACE organisations provide community education services for a nominal fee and are almost wholly reliant on public funding.

In the publicly-funded VET sector, many RTOs supplement their government income with private income from industry and students. Nonetheless, revenue from government funds about 82 per cent of the hours delivered in this sector (table 2.2).

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[2] The official number of publicly-owned universities reported here understates the extent of university involvement in the VET sector. Further discussion is provided later in this chapter.

Table 2.2 Proportion of hours of delivery in the publicly-funded VET system, by major funding source, 2008

Funding source	Per cent
Commonwealth and state funding	82.3
Domestic full-fee paying	12.1
International full-fee paying	5.6

Source: Table B.13.

When VET providers outside the publicly-funded VET sector are also considered, the contribution of fee-for-service funding to the operations of all providers becomes more significant. Indeed, fee-for-service and enterprise funding are the dominant sources of funding for private providers (table 2.3).

Table 2.3 Government recurrent and fee-for-service training revenue, government and private VET providers, 2008[a]

$ million

	TAFE and other government providers	Private providers[b]
Government recurrent funding	3 645	455
Fee-for-service	991	2 075
Enterprise funding in ERTOs	945[c]	1 155[d]
Total	5 581	3 685

[a] Broad estimates only. Figures are not strictly comparable. [b] Includes private ERTOs, private RTOs receiving public funding and other RTOs. [c] ERTOA estimate (sub. DR91, p. 8) of government ERTO training expenditure, based on ERTOA (2009). [d] ERTOA estimate (sub. DR91, p. 8) of private ERTO training expenditure, based on ERTOA (2009).

Source: Productivity Commission estimates based on NCVER (2010c), ACPET (unpublished) and ERTOA (2009).

Diversity of course offerings

The VET sector delivers accredited training in two main ways. First, students can complete a suite of articulated and sequential modules that lead to full qualifications such as certificates and diplomas. Second, students can choose to complete selected modules only, resulting in statements of attainment. The sector also delivers a range of unaccredited programs, including pre-accredited training (for example, bridging courses delivering foundation skills) and courses tailored to the particular needs of individual firms (box 2.3).

Box 2.3   **Course offerings in the VET sector**

Accredited training — training that provides the student with nationally recognised and transferable skills. Accredited training can only be delivered by Registered Training Organisations (RTOs) and its content has to be approved by state accreditation bodies. Accredited training can lead to a:

- *Qualification* — awarded in recognition of a student completing an AQF qualification or course by demonstrating the required knowledge, skills or competencies.

- *Statement of Attainment* — recognition of having completed part of an accredited qualification or course.

Unaccredited training — training that has not been accredited, but has vocational relevance. Examples include:

- *Pre-accredited training* — courses designed for students to gain the confidence and skills required to undertake accredited training. These include foundation, bridging and enabling courses.

- *Firm-specific training* — unaccredited training that is delivered based on an individual firm's needs.

For unaccredited training to be considered part of this study's definition of the VET sector, it needs to be delivered by an RTO. Hobby and leisure activity is not included.

Of approximately 2 million course enrolments in the publicly-funded VET system in 2009, 77 per cent were in AQF qualifications (table B.7). Delivery at certificate level makes up the bulk of course enrolments for the publicly-funded VET system, private providers and ERTOs (table 2.4).

Table 2.4   **AQF level of study undertaken, number of enrolments by portions of the VET sector[a]**

'000

	Publicly funded VET system	*TAFE and other government providers*	*Private (including ERTOs)*	*ERTOs (public and private)*
Certificate level enrolments	1 362[b]	845[b]	598[c]	233[d]
Diploma or higher enrolments	223[b]	185[b]	307[c]	37[d]

a Data in this table are indicative only, as they overlap and are not strictly comparable. **b** In 2009. **c** ACPET estimates of enrolment levels (not course type) in May–June 2010. **d** Productivity Commission-adjusted ERTOA estimates of number of enrolments in 2008 (sub. DR91, p. 7).

Source: Table B.7; NCVER (2010i); ACPET (2010a unpublished); ERTOA (2009).

The enrolments captured in the data on the publicly-funded VET system show the wide range of fields in which students enrol (table 2.5). The largest proportions of

enrolments are in 'Engineering and related technologies' and 'Management and commerce'. It is these fields that also attract the largest proportion of apprentices and trainees accounting for 35 per cent and 21 per cent, of Australia's totals, respectively (NCVER 2010b).

Table 2.5   **Proportion of course enrolments by field of delivery, publicly-funded VET, 2009**

Field of delivery (course)	Per cent
Natural and physical sciences	0.4
Information technology	2.0
Engineering and related technologies	16.4
Architecture and building	7.4
Agriculture, environmental and related studies	4.3
Health	5.4
Education	3.4
Management and commerce	19.5
Society and culture	10.2
Creative arts	2.9
Food, hospitality and personal services	10.8
Mixed field programs	17.3

Source: Table B.9.

Diversity of student profiles

The student population enrolled in the publicly-funded VET system ranges from young students from school and post-secondary education, through to 25 to 44 year olds (the largest cohort), as well as 45 to 64 year olds and older (table 2.6).

Table 2.6   **Age profile of publicly-funded VET students, 2009**

Age	Number of students	Proportion of students
	'000	%
14 years and under	12.9	0.8
15 to 19	447.4	26.2
20 to 24	287.4	16.8
25 to 44	601.4	35.2
45 to 64	312.7	18.5
65 and over	25.9	1.5
Unknown	18.9	1.1

Source: NCVER (2010e).

An important characteristic of students in the publicly-funded VET sector is that a high proportion study part-time (86 per cent in 2009) (table B.17). Contributing to

this is the prominence of the apprenticeship/traineeship system in VET delivery, with about 20 per cent of students in the publicly-funded VET system studying as an apprentice or trainee (enrolled part-time in VET for off-the-job training). Furthermore, most VET students who begin VET are already employed. For example, in 2009, 75 per cent of graduating VET students had been employed at the time of commencing VET (NCVER 2009e).

The main reason that students enrol in VET is for employment-related purposes. In 2009, 71 per cent of students in the publicly-funded VET system reported this as their main motivation for study, with 29 per cent citing personal development and 2 per cent citing further study (table B.18).

Although the majority of VET students have at least completed Year 12 prior to enrolling in VET, the VET sector is an important source of further education for students who have not completed Year 12, which is at least one third of all students (table 2.7). Removing VET-in-Schools (VETiS) students from the total, 21 per cent of VET students have left school before completing Year 12.

Table 2.7 **Publicly-funded students by highest education level, 2009[a]**

Previous highest education level completed	Students in VET
	%
Degree or higher	7.1
Certificate, Advanced Diploma or Diploma	20.5
Miscellaneous education	0.7
Year 12	22.4
Year 11 or lower	34.2
Unknown	15.1

a Figures include VETiS students, many of which are currently undertaking study at Year 11 or 12 level.
Source: Table B.16.

Early school leaving tends to be associated with lower literacy and numeracy skills. In 2006, the literacy skills of nearly one third of VET students were below the 'minimum required to meet the complex demands of everyday life and work in the emerging knowledge based economy' (Productivity Commission estimate based on ABS 2006a). Forty-five per cent had similarly low numeracy skills. The fact that VET can remedy foundation skill deficiencies in some of its students adds to its employment-related orientation. Recent research has shown that a person's literacy and numeracy skills are crucial factors influencing his or her productivity and future engagement with the labour market (Shomos 2010).

VET is an important source of post-secondary education for learners from equity groups. The participation of these groups in the publicly-funded VET system is higher than in the higher education sector (table 2.8).

Table 2.8   **Proportion of students from equity groups, 2008**
            Per cent

Status	Publicly-funded VET system	Higher education[a]
Indigenous	4.3	1.3
Disability	5.9	4.1
Non-English speaking background	14.4[b]	3.8

a Domestic students only. **b** Includes international fee-for-service students. These students account for 2.8 per cent of all students in the publicly-funded VET system (table B.13).

Source: Table B.19; DEEWR 2010g.

Indigenous Australians are proportionally over-represented in VET populations. In 2009, 17 per cent of all Indigenous Australians aged 15 to 64 participated in VET, compared with 8 per cent of all Australians (SCRGSP 2010).

The VET sector is also an important provider of education to international students. Data from Australian Education International show that in 2009, 37 per cent (232 500 in total) of Australia's international students studied in the VET sector. The private sector is the dominant source of provision in this market, with students in these providers comprising over 80 per cent (192 300 in total) of international students studying in the VET sector (table B.21).

Diversity of location and delivery

VET is delivered widely across Australia. Although 54 per cent of students in the publicly-funded VET system are located in major cities, 38 per cent are located in inner- and outer-regional areas, and 4 per cent are located in remote or very remote areas (table B.22). Students outside of the main cities are served by a range of providers. According to a DEEWR survey (2010h), in 2010, 64 per cent of TAFEs, 64 per cent of ERTOs, 43 per cent of ACE providers and 41 per cent of private providers had campuses outside capital cities. In some areas, the local VET provider is the only source of post-secondary education. Indeed the TAFE, ACE or private provider is an important face of learning in many rural areas (table B.23).

The traditional method of VET delivery involving face-to-face learning on campus is becoming less prominent, partly with increased use of technology. The proportion of publicly-funded VET contact hours delivered in the classroom has declined from 82 per cent in 2000 to 70 per cent in 2009. Over the same period, the proportion of

hours delivered at the site of employment has risen from 5 per cent to 12 per cent (table B.23). Further discussion of delivery trends is provided in chapter 6.

Blurring of boundaries between VET and schools, and with higher education

The VET sector increasingly overlaps with schools and higher education. Although the AQF clearly identifies the sector with authority for setting the standards of each qualification (table 2.9), some institutions are accredited to deliver several types of qualification:

- some VET qualifications are issued in the schools sector through VETiS programs (box 2.4)

- some RTOs deliver Senior Secondary Certificates

- some VET qualifications are issued by higher education institutions that are also RTOs

- some higher education qualifications, such as Associate Degrees and Bachelor Degrees, are issued by RTOs that are also approved as higher education providers.

Table 2.9 **Australian Qualifications Framework qualifications by sector of accreditation[a]**

School sector	VET sector	Higher education sector
		Doctoral degree
		Master's degree
	Graduate vocational diploma	Graduate diploma
	Graduate vocational certificate	Graduate certificate
		Bachelor's degree
	Advanced diploma	Associate degree / Advanced diploma
	Diploma	Diploma
Senior secondary certificate of education	Certificate IV	
	Certificate III	
	Certificate II	
	Certificate I	

a There are no standardised rankings or equivalences between *different* qualifications issued in different sectors. Where the same qualifications are issued in more than one sector, but authorised differently by each sector, they are equivalent qualifications, albeit sector-differentiated.

Source: AQF Advisory Board (2007).

Box 2.4   **VET-in-Schools**

VET-in-Schools (VETiS) programs are undertaken by some school students as part of the Senior Secondary Certificate. VETiS provides credit towards a nationally recognised AQF VET qualification. The training is delivered by a school that is a Registered Training Organisation (RTO) or a school in partnership with an external RTO. VETiS is designed to expand pathways for students to improve post-compulsory educational outcomes. In other words, it seeks to aid future employment prospects or articulation into further studies.

In 2009, there were 229 500 VETiS students, representing 51 per cent of all VET students aged 15–19. VETiS students comprised:

- 21 500 school-based apprentices and trainees

- 208 000 students enrolled in other VETiS programs (NCVER 2010g).

Until recently, the VET and higher education sectors have been differentiated by the nature of teaching in each, with VET institutions offering competency-based qualifications, and universities offering curriculum- and research-based qualifications. However, there is a progressive blurring of the divide between the higher education and VET sectors, with a shift towards a 'tertiary' sector.

The Australian Education Union listed a number of recent policy decisions by government that it regards as consistent with this shift:

- the re-structuring of the federal Department of Education, Employment and Workplace Relations (DEEWR) so that higher education and VET are within the same 'group';[3]

- a 'strengthened' Australian Qualifications Framework;

- a combined ministerial council for tertiary education (Ministerial Council for Tertiary Education and Employment (MCTEE));

- a new regulatory body for higher education that will eventually include VET (Tertiary Education Quality and Standards Agency (TEQSA)); and,

- the extension of income contingent loans to some VET qualifications (VET FEE-HELP). (sub. 34, p. 10)

A growing number of VET and higher education institutions deliver qualifications in both sectors. Moodie et al. (2009) notes the existence of dual-sector providers and mixed-sector providers. The former offer a substantial proportion of their teaching load in both VET and higher education and must meet each sector's

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3 On 14 September 2010, Prime Minister Gillard announced a new ministry, appointing a Minister for Tertiary Education, Skills, Jobs and Workplace Relations. This new Minister is to have responsibility for both VET and higher education.

different accreditation, funding, reporting and quality assurance requirements. Mixed-sector institutions are primarily either a VET or higher education institution, with a relatively small offering in the other sector. Most arrangements for programs in the other sector can be handled as exceptions to their normal structures, systems and processes.

There are now 11 TAFEs (as well as the whole of the New South Wales TAFE system) that are registered as higher education providers and there are also 80 private providers registered to deliver both VET and higher education (Wheelahan 2010b). There are also 12 universities that are RTOs (table B.1) in their own right, but this number does not represent the full involvement of universities in the VET sector. Moodie (sub. DR64) indicated that 21 universities are registered to offer VET, or have an affiliated RTO that is registered. These affiliated RTOs are essentially private RTOs, since they are not funded by the broader university's government funding. It is not unusual for private RTOs to be commercial offshoots of bodies such as universities, firms, government departments and trade unions.

By diversifying their course offerings, providers might be able to reap economies of scale and scope. The move towards a tertiary sector also offers the potential for better pathways between the VET and university sectors. As the Bradley Review concluded:

> … although distinct sectors are important, it is also vital that that there should be better connections across tertiary education and training to meet economic and social needs which are dynamic and not readily defined by sectoral boundaries. Apart from some professional, associate professional and trade jobs, there is no neat relationship between the level or field of qualifications obtained by students and subsequent occupations. Most firms demand a mixture of workforce skills acquired from either or both sectors and skills acquired on the job become more important the longer someone has been in the labour force. (Australian Government 2008, p. 180)

The desire for better articulation between the VET and university sectors is partly driven by perceived rigidities that make it difficult for students to switch from one sector to the other. For example, Innovation and Business Skills Australia noted that 'the competency based nature of the VET sector has itself been perceived as a barrier to seamless, or even any, articulation' (sub. 8, p. 2).

While few stakeholders would like to see the VET sector limited to being a 'feeder' for universities, it is widely acknowledged as a valuable stepping stone to higher education, particularly for disadvantaged students. For example:

> With the VET sector traditionally catering for a lower socio-economic profile of students, it is also likely that VET would be a more important pathway to higher education for disadvantaged students than for higher socio-economic students. (NSW Government, sub. 57, p. 4)

It is known that to increase the participation in the workforce by low SES groups, well specified pathways from Certificates I and II with integrated literacy and numeracy support is essential. (Charles Darwin University, sub. 40, p. 2)

The capacity of the VET sector to provide pathways to higher education is of particular relevance to the COAG targets for educational attainment in the population. The VET sector can be both an effective pathway to higher education and a potential source of extra capacity needed to meet these targets (Skills Australia 2009). Submissions to this study echoed this sentiment. For example, Technical and Vocational Education and Training (TVET) Australia stated:

> The emerging tertiary sector has the potential to enable more collaboration between the VET and higher education sectors and more pathway options for the full spectrum of learners, including those experiencing disadvantage. There is also the opportunity to promote and emphasise the vital role that VET can play in providing a pathway to work or further learning — including higher education. (sub. DR87, p. 3)

However, pathways are not dependent on the existence of dual-sector or mixed-sector providers. Many standalone institutions in the higher education and VET sectors already provide such opportunities through integrated delivery or articulation arrangements (box 2.5). Some participants in this study highlighted that there were risks associated with the emerging tertiary sector. For example, TVET Australia noted:

> … it has become clear that some strengths of the VET sector may be at risk when they are integrated with higher education. At a preliminary level, this includes the workplace, competency-based learning model, which may be in danger of being subsumed by Higher Education's curricula-based learning model. The practical nature of VET and its close ties with industry and employment, which have been particularly successful in engaging and upskilling people who experience disadvantage, may be at risk. (TVET Australia, sub. DR87, p. 2)

Both Ai Group and DEEWR concurred that the VET sector should retain its existing focus:

> It is important for the VET sector to not 'lose its way' and concentrate on higher level qualifications, especially those provided by higher education. The VET sector overwhelmingly provides foundation skills and trade, intermediate, supervisory and para-professional training for industry and this should remain the main focus. (Ai Group, sub. DR 88, p. 4)

> A major strength of the Australian VET system is that it is able to provide competency based training that directly meets the skills identified by industry that are required in the workplace. It offers flexibility for employers and students. For example, a student can receive a statement of attainment or gain a skills set for a specific job role without the need to complete a full qualification. (DEEWR, sub. DR110, p. 3)

Box 2.5   Western Riverina Higher Education Project

The Western Riverina Higher Education Project is run by Charles Sturt University (CSU), TAFE NSW Riverina Institute (RI) and Griffith City Council. The key aim of the project is to use the infrastructure at the RI in Griffith to offer integrated programs that have CSU and TAFE components, and lead to CSU qualifications.

At present, an integrated business program, lasting three years, is offered. Students graduate with four nationally recognised Australian Qualifications Framework (AQF) qualifications, including:

- a CSU Bachelor of Business Studies

- an RI Advanced Diploma of Management

- an RI Diploma of Management

- an RI Certificate IV in Frontline Management

In November 2008 CSU and the RI also signed a Statement of Intent for the joint development of integrated degree/diploma programs in Nursing and Early Childhood.

The collaborations under the Western Riverina Higher Education Project form only one part of the cooperation between CSU and RI, with other programs delivered at other RI campuses. CSU also runs similar programs with TAFE Western and Wodonga TAFE and has an extensive set of articulation arrangements with TAFEs from both New South Wales and Victoria, and with the Australian Defence Force's Enterprise Registered Training Organisation.

Source: CSU (2010); Anne Lyons, Department of Education and Training NSW, pers. comm., 3 November 2010.

There might also be risks to equity goals from pursuing higher education at the expense of traditional VET. The National VET Equity Advisory Council noted that there is a:

> … need to retain the 'traditional strengths' of the VET sector in terms of its strong focus on work-related outcomes and an 'applied learning' pedagogy which emphasises the development of practical, work-related skills. Given that around 20 percent of VET students have left school before completing Year 12 (and early leaving tends to be associated with lower levels of literacy and numeracy skills) and the key role of VET in providing a pathway to [higher education] for disadvantaged students, it is important that VET delivers both the technical and foundation skills needed by students to achieve their immediate employment goals and longer term further study goals. (sub. DR75, p. 4)

The Commission agrees with the participants quoted above that moving too far from VET's traditional strengths and training focus might prove counterproductive for the sector and its clients.

The emerging tertiary sector provides an additional set of pathways and education options for students, including those who experience disadvantage, but it is important that the traditional strengths of the Vocational Education and Training sector not be diminished as a result.

3   Profiling the VET workforce

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Key points

- The Vocational Education and Training (VET) workforce comprises a mix of trainers and assessors, other professionals and general staff across the public and private sectors. There are about 73 400 Technical and Further Education (TAFE) employees. It is estimated that about another 150 000 workers are involved in VET delivery by non-TAFE providers, but higher numbers have been suggested by others.

- Part-time employment of non-TAFE trainers and assessors — at 33 per cent of all employment in the non-TAFE sector — is in line with the labour market average of 30 per cent. Part-time employment is likely to be higher in the TAFE sector.

- Non-permanent employment is more common in VET than in the wider labour market. About 60 per cent of trainers and assessors in TAFE, and 36 per cent in the non-TAFE sector, are employed on a non-permanent basis, compared to 25 per cent of the wider labour market. Casual employment is used extensively in TAFE.

- Multiple-job holding is common in the VET sector. About one out of every five VET workers, and one out of every four trainers or assessors, has more than one job.

- The VET workforce, especially the TAFE workforce, is older than the average labour market. Most VET workers gain industry experience prior to joining the sector.

- Nearly all trainers and assessors in TAFE, and about 80 per cent of those in the non-TAFE VET sector, hold a post-school qualification. However, not all VET trainers and assessors hold the minimum qualification required for VET teaching (the Certificate IV in Teaching and Assessment) or an equivalent qualification.

- There is no typical pathway into the sector, with trainers and assessors joining the sector under a variety of employment arrangements.

- The average tenure of VET trainers and assessors is 5 to 10 years, but with wide dispersion around this range. Fourteen per cent of trainers and assessors have been employed in the sector for less than 2 years, while 43 per cent have tenures of 10 years or more. In private Registered Training Organisations, 58 per cent of trainers and assessors have less than 5 years experience in VET.

- The VET workforce displays high internal job mobility. Over 80 per cent of workers change jobs within the sector during their VET career.

- VET workers are committed to their careers in the sector, with only 7 per cent intending to leave the sector within the next 12 months. The intentions of many older VET workers to keep working, combined with sizeable inflows of new workers of all ages, will help secure the future supply of VET workers.

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Vocational Education and Training (VET) is delivered by a wide mix of workers who have varied sets of skills, who contribute to VET delivery at varying levels of intensity, and who are located in a diversity of settings. This chapter profiles the employment and demographic characteristics of VET workers, highlights those features which distinguish this workforce from the broader labour force and examines the career pathways that VET workers are likely to follow.[1]

3.1   Describing the different types of VET workers

Diversity of the VET workforce

The diversity of the VET workforce is manifest in a number of dimensions. First, the provision of VET requires a mix of workers with a range of skills. Some staff directly engage with students in the delivery of course material. Others are responsible for course development, review and/or assessment. Yet others manage, administer or contribute more generally to the operation of an education or training institution.

Second, VET workers are engaged by a wide range of providers. There are VET workers employed in Technical and Further Education (TAFE) institutes, secondary schools, dual-sector universities and private training organisations, as well as in enterprises outside the formal education and training industries. Each of these different types of providers tend to operate quite differently from the others, and this is reflected in their workforce profile. Two of the distinct types of provider in the non-TAFE sector — Enterprise Registered Training Organisations (ERTOs) Adult and Community Education (ACE) providers — are profiled individually (boxes 3.1 and 3.2).

Third, VET is delivered by a mix of workers with different employment and contract arrangements. Workers might be employed on a permanent or temporary basis (the latter can include fixed-term, casual or sessional employment), or they might be self-employed and independently contracted by VET providers. Some workers contribute to VET full-time, while others divide their time between training and other jobs or activities outside education.

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[1] More detailed data are presented in appendix C, including important information about some of the differences between jurisdictions in terms of the way that TAFE administrative data are collected and recorded. As a result, when using these data, comparisons between the TAFE and non-TAFE sectors, and between jurisdictions within the TAFE sector, should be made with caution.

Box 3.1 **The VET workforce in Enterprise Registered Training Organisations**

Workers responsible for training and assessment in Enterprise Registered Training Organisations (ERTOs) are somewhat hard to identify in data collections because many of them deliver VET outside of their main job function. Enterprises are generally reliant on a mix of both 'general' and 'dedicated' workplace trainers in training delivery, although they tend to be more reliant on dedicated assessors when it comes to the assessment of workplace competencies (ERTOA, sub. DR91).

A survey by the Department of Education, Employment and Workplace Relations (DEEWR), which was designed to identify training staff by their type of provider, included the responses of 239 employees in ERTOs (DEEWR 2010i). Of these workers, 89 described themselves as VET practitioners, and most of them delivered training in a small ERTO (that is, with fewer than 250 students).

The DEEWR survey data offer an indicative profile of the VET workforce employed by ERTOs:

- A high share (over 80 per cent) of training staff in ERTOs are employed on an ongoing or permanent basis. There is low reliance on casual or sessional staff.

- The wages of training staff in ERTOs average about $1400 per week with moderate dispersion around that figure. The wages of VET practitioners in ERTOs average slightly less, at about $1250 per week.

- About 60 per cent of all training staff in ERTOs — rising to about 80 per cent of those employed as VET practitioners — hold a VET teaching qualification.

- Just over half of all training staff in ERTOs are aged between 45 and 64 years. VET practitioners in ERTOs have a slightly older profile than the other training staff.

- There is an even gender balance of all training staff in ERTOs, although the majority of staff employed as VET practitioners in ERTOs are male.

According to their peak body, ERTOs tend to recruit trainers and assessors from within their enterprise's workforce, with few workers coming from TAFEs or other professional VET organisations (ERTOA, sub. DR91). In an ERTO setting, employers report that the most essential criteria for the recruitment of trainers and assessors is their expertise in the business's practices, in addition to having the 'right' personal characteristics (ERTOA, sub. DR91).

Feedback from study participants suggest that ERTOs regard the assessment of workplace competencies as being a more demanding task than the delivery of training. As such, ERTOs have higher professional expectations of assessors than they do of trainers (ERTOA, sub. DR91).

Box 3.2   The VET workforce in Adult and Community Education providers

The Adult and Community Education (ACE) workforce provides an important role in Australia's VET system, by providing pathways to further learning and by promoting community participation through the delivery of both vocational and non-vocational courses and modules.

A distinguishing characteristic of ACE providers — especially not-for-profit community-owned providers — is their reliance on a volunteer workforce, both in the delivery of training and in other professional roles. This characteristic reflects the motivation of many ACE workers to 'give back' to the community (CCA, sub. 53). According to the Community Colleges Australia (CCA), the role of volunteerism in these types of providers is expected to fall over time. This is because larger student numbers and higher demands of compliance and regulation are raising the complexity of job roles in ACE, especially administrative tasks. These changes require workers with more advanced skills who need to be paid for their services.

CCA's profile of the workforce of ACE providers (including paid staff and volunteers) shows that most are female with an average age of 45 years, and about one-third hold a degree. About 10 per cent come from a non-English speaking background and 2 per cent classify themselves as Indigenous. Non-permanent employment in ACE providers is common, with about 75 per cent of their practitioners employed on a casual or contracted basis (CCA, sub. 53).

A profile of ACE providers in Victoria, drawn from the ACE Providers Business Survey (ACFE Board 2009), also showed that the majority of this workforce were female, and most are aged 40 to 49 years. Based on the 161 organisations in the sample, just over half of the people who contribute to the operation of ACE providers are unpaid volunteers.

The need for trainers who deliver VET to have an adequate level of industry knowledge and experience means that many of them are likely to be multiple-job holders. In particular, trainers and assessors employed to deliver VET on a sessional, casual or contractor basis might be more likely to spend most of their work hours in their respective industry jobs, rather than in the VET sector. This identity as a 'dual professional' has implications for trying to locate and measure the full scope of the VET workforce. Its members are difficult to isolate within data collections that classify workers according to their main job only. If these workers identify themselves, first and foremost, by the technical trade, occupation or profession in which they are skilled — rather than as a VET practitioner — their involvement in VET might not be captured in workforce surveys or other data collections. This analysis accounts, whenever possible, for this distinctive feature of the VET workforce and attempts to use data which include multiple-job holding.

A practical definition of the VET workforce

This study defines the VET workforce as all employees of Registered Training Organisations (RTOs). For the purposes of this study, the Commission has defined the different groups that constitute the VET workforce on the basis of a combination of workers' occupational and industry characteristics. These groups reflect the breadth of ways in which workers are involved in the sector, and draw on the terms widely used by members of the sector and researchers in the field, including Dickie et al. (2004), Enterprise Registered Training Organisation Association (ERTOA) (sub. DR91), Mlotkowski and Guthrie (2008) and Wheelahan (2010a).

Trainers and assessors

VET teachers, trainers and assessors[2] are the workers who directly engage with students in the development, delivery, review and assessment of VET. These workers might be employed in a specialised VET institution, or fulfil this role while employed in another industry. Based on the nature and intensity of their involvement with the VET sector, trainers and assessors can be further differentiated into three categories, as follows.

VET practitioners

Practitioners are those trainers and assessors who have a substantive involvement in VET delivery, whether employed on a permanent or temporary basis. They are expected to be suitably skilled in the practices of teaching, training and assessment, and also to possess sound industry currency.

Enterprise trainers and assessors

These are trainers and assessors who deliver accredited training within their non-education specialised enterprise. Like practitioners, enterprise trainers and assessors should be skilled in training and assessment, and possess sound industry currency for the purposes of their enterprise's activity. They are expected to have a solid knowledge of the firm-specific practices of the enterprise. This could include expertise in the enterprise's equipment, processes, products and business culture.

Representatives of ERTOs advised that enterprise trainers and assessors can be described as either 'dedicated trainers and assessors' (whose main job function is the delivery of training and assessment) or 'workplace trainers and assessors' (who deliver training in their capacity as a team leader, supervisor, experienced worker or

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2   For brevity, this group is referred to as 'trainers and assessors' in the remainder of this report.

volunteer, and who might not even regard themselves as a member of the VET workforce) (ERTOA, sub. DR91).

Industry experts

Industry experts, compared with practitioners, have a more intermittent involvement with the VET sector, generally taking on a training role in a VET provider on an occasional or one-off basis, while working in their respective industry.

Due to their marginal attachment to the VET sector, industry experts might not be required to be as highly skilled in training and assessment as VET practitioners, although they should be competent in transferring their knowledge and skills to students. In their role as an industry expert, they are expected to have high knowledge of current industry practice.

In practice, industry experts are likely to be difficult to locate within most data collections because VET training is not their main job. Furthermore, some go by a different job title such as 'casual lecturer', 'guest lecturer' or 'industry specialist'. Nevertheless, within datasets which include workers with multiple jobs, there are three characteristics which assist in identifying industry experts. First, at any single point in time (or at least within a moderately short time period), these workers can be expected to hold multiple jobs, being employed both in their industry and by an RTO. Second, in relation to multiple-job holding, they are expected to work a very low number of hours in the VET sector, in contrast to VET practitioners. Third, industry experts are expected to be employed as casual staff or self-employed contractors, as is common in the higher education sector (Rowbotham 2010).

Other VET professionals

This term describes staff who manage, support and facilitate the VET-specific services provided by trainers and assessors. This group includes managers who oversee and provide strategic direction for the operation of VET institutions, education aides who assist practitioners in the delivery of VET, and other human resources and education professionals whose skills need to be somewhat specific to the VET industry.

General staff

General staff are those members of the VET workforce with the generic skills to support the operation of VET institutions. These include occupations such as accountants, librarians, IT staff and maintenance staff. The skills of these workers

are not specific to the VET sector, meaning that they could be employed elsewhere in the labour force to perform similar job tasks.

3.2   Size of the VET workforce

Robust estimates of the exact size of the total VET workforce are not available. Measuring this workforce is a complex task, as other researchers have noted (Dickie et al. 2004; Mlotkowski and Guthrie 2008). Previous estimates of the size of the workforce range widely between different data sources, largely due to differences in their definition of the scope of the sector and in their methods of data collection and analysis. A summary of successive workforce estimates and a discussion of available data sources are presented in appendix C (table C.1 and section C.3).

Data on the size and characteristics of the VET workforce presented in this chapter and appendix C differ, in some respects, from the data published in the Commission's Draft Report. This is because some estimates were revised, based on the availability of more recent or more reliable data sources. Additionally, the Commission undertook a more detailed analysis to adjust the size of its previous estimates of the VET workforce, as explained in appendix C.

Overall, the Commission estimates that the total VET workforce numbers about 223 000. This estimate is based on the Census and TAFE administrative datasets. The Commission's estimate contrasts with previous estimates from the National Centre for Vocational Education Research of about one million, which were based on the Survey of Education and Training (SET) (Mlotkowski and Guthrie 2008). This differential can be partly explained by differences in the data sources, as discussed in appendix C.

For the TAFE sector, reliable data drawn from administrative payroll sources indicate that Australia's TAFE system, over the course of a single year, employs about 73 400 workers (table C.2). A breakdown of the TAFE workforce by job role indicates that, for every two trainers and assessors working in the TAFE sector, there is generally one other worker employed in a supportive role as an other VET professional or general staff member (table C.3).

Estimates of the number of workers employed in the non-TAFE workforce — notably, private RTOs — are more scarce and less reliable.[3] Based on the data available, it is estimated that about 150 000 workers are involved in the delivery of

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[3] The Commission notes that the ERTOA plans to survey all ERTOs to establish the size and nature of their VET workforces, and to publish the findings by June 2011 (ERTOA, sub. DR91, pp. 18–19).

VET outside of TAFE providers.[4] This number, however, is likely to be an underestimate because many staff in ERTOs provide training outside of their main job role and, therefore, are hard to identify as training staff in data collections. The Australian Council for Private Education and Training (ACPET, sub. 50) suggests that the size of the workforce employed by all private RTOs — a subset of the non-TAFE sector — is about 150 000. The lack of precision of workforce estimates for the non-TAFE sector partly reflects the fact that, currently, there is no agreed standard or national system of data collection for the VET workforce, as discussed in chapter 7.

Based on what little data are available for the non-TAFE sector, it is estimated that there is roughly one worker employed as an 'other VET professional' or 'general staff member' for every assessor or trainer (table C.3; DEEWR 2010i).

3.3   Characteristics of the VET workforce

The Commission presents the following profile in response to the study's Terms of Reference request to consider the composition and skills of the existing VET workforce.

Location

State and territory distribution

The distribution of the VET workforce across the states and territories broadly reflects that of Australia's total population (table C.4; ABS 2007). This generally applies to both the TAFE and non-TAFE sectors. However, relative to each jurisdiction's share of the total population, it is notable that Victoria has a larger share of the TAFE workforce, while New South Wales has a larger share of the non-TAFE workforce. Based on 2008 data, New South Wales and Victoria have a relatively higher ratio of trainers and assessors to general staff, compared with other jurisdictions (table C.4).

Regional distribution

The regional distribution of the VET workforce also aligns closely with that of Australia's labour force and total population more generally, with the majority of

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[4]   The Commission's method to estimate the size of the non-TAFE VET workforce is explained in appendix C.

VET workers concentrated in the most densely populated areas (table C.5). Fewer than 2 per cent of all VET trainers and assessors — in both the TAFE and non-TAFE sectors — are based in remote or very remote locations. Available data on the regional distribution of TAFE workers (table C.6) show that most of the TAFE workforce in Victoria, New South Wales and Western Australia is based in major cities, while most of the TAFE workforce in Queensland work outside of a major city.

Employment arrangements

Labour force status and hours worked

In the TAFE sector, data that identify full-time or part-time engagement suggest that about 35 per cent of trainers and assessors are employed on a full-time basis and 10 per cent on a part-time basis (table C.7). Other trainers and assessors are employed on a casual basis, with the majority working part-time hours.

Rates of part-time employment for TAFE workers vary across jurisdictions. On a headcount basis, the majority of trainers and assessors in Queensland and Tasmania are employed to work full-time hours, whereas in other jurisdictions, the majority work part-time hours (including casual workers) (table C.8). However, on a full-time equivalent basis (adjusting for hours worked), the majority of the TAFE trainers and assessors in all jurisdictions (except New South Wales) work full-time hours (table C.10).

Average hours of TAFE workers, when broken down by form of employment (for example, full-time, part-time or casual) are similar across all jurisdictions (table C.9). (Full-time hours worked by trainers and assessors vary slightly across jurisdictions, in line with variances in award structures). Among all TAFE workers, the hours of part-time workers equate to about two-thirds of those of full-time workers across all jurisdictions, while those employed on a casual basis tend to have much lower hours than workers in other modes of employment.

Average hours of all TAFE workers are highest in Queensland and Tasmania, partly reflecting the higher prevalence of full-time and part-time (rather than casual) employment in these jurisdictions (table C.8).

In the non-TAFE sector, about one third of trainers and assessors working in VET as their main job are employed on a part-time, rather than full-time, basis (table C.7). This is in line with the labour market average of 30 per cent. Overall,

trainers and assessors employed in the non-TAFE sector as their main job have an average paid working week of 35 hours.

Compared with trainers and assessors, part-time employment in the VET sector is relatively less common among other VET professionals and general staff.

Trainers and assessors who work a low number of hours in VET might be employed as industry experts. Survey data identified a very low proportion of trainers and assessors (about 4 per cent) who worked no more than four hours per week in VET while also holding a second job outside of the education sector (DEEWR 2010i).[5] However, the real share of industry experts is expected to be higher than these data suggest, because their marginal involvement in VET makes them harder to capture in survey collections. Another estimate can be provided by the proportion of casual trainers and assessors who work a low number of hours in VET, for which administrative data are available for the TAFE sector. About 30 per cent of all trainers and assessors in TAFE work on a casual basis for no more than four hours each week, with most of this group working no more than two hours.[6] However, this estimate of the prevalence of industry experts in the TAFE workforce might be higher than their actual representation, as it can only be surmised that their low hours in VET are indicative of a second job in an industry relevant to their area of VET delivery.

Form of employment

On a headcount basis, about 65 per cent of TAFE trainers and assessors are employed on a non-permanent basis (table C.11). There is considerable variation across jurisdictions. Queensland and Tasmania have about 30 per cent of trainers and assessors employed on a non-permanent basis, whereas other jurisdictions have between 50 and 75 per cent employed on that basis (table C.11). Inter-jurisdictional differences in the use of non-permanent staff are partly explained by industrial agreements governing the use of casual staff in the TAFE sector (chapter 7).

Instead of headcount numbers, full-time equivalent shares of the workforce can be used to derive a more useful profile of the workforce's diversity of work arrangements. Administrative data for the TAFE sector shows that trainers and assessors employed on a casual basis tend to work much lower hours than those in other forms of employment. Drawing on these data, full-time equivalent shares of the trainer and assessor workforce indicate that between 40 and 80 per cent

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[5] 'One to four' hours was the lowest category of hours used in the survey.

[6] Productivity Commission estimates based on unpublished TAFE administrative data.

(depending on the jurisdiction) of the TAFE workforce is engaged in permanent employment (table C.12).

In the non-TAFE sector, survey data indicate that a maximum of two-thirds of trainers and assessors are employed on a permanent or ongoing basis (data not shown) (DEEWR 2010i). The remaining non-permanent trainers and assessors are employed under a mix of arrangements: 10 per cent are fixed-term, 17 per cent are casual or sessional, and about 10 per cent are self-employed contractors. By way of comparison, casuals made up about 22 per cent of all teaching staff in Australian universities in 2007 (Coates et al. 2009), and Australia's labour force, in total, was made up of about 20 per cent casuals (that is, workers without paid leave entitlements) and 10 per cent contractors in 2009 (ABS 2009c).

Among other VET professionals and general staff in the non-TAFE sector, non-permanent employment is not as common. Over 80 per cent of these workers are employed on a permanent basis (data not shown) (DEEWR 2010i).

The data for forms of employment in the non-TAFE sector were drawn from the DEEWR survey (2010i) and should be treated as indicative only, due to the likely under-representation of casual employees in this survey.

Multiple-job holding

A sizeable proportion of VET workers hold more than one job, either elsewhere within the VET sector or in another industry. About one in every five workers employed in the VET sector — and about one in every four trainers and assessors — are multiple-job holders (table C.13).[7] Among trainers and assessors, multiple-job holding is slightly more prevalent in the non-TAFE sector than in the TAFE sector. These figures include industry experts, although this type of staff is likely to be under-represented due to the difficulty of capturing them in an employee survey.

The prevalence of multiple-job holding among trainers and assessors is likely to be associated with the high incidence of non-permanent employment in the sector. These characteristics of VET trainers and assessors accord with their profile as dual professionals.

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[7] These figures are based on survey data and should be treated as a lower-bound estimate, due to the likelihood that multiple-job holders were under-represented in the DEEWR survey.

Income and wages

Among VET workers employed in the non-TAFE sector as their main job in 2006, full-time trainers and assessors earned an average gross weekly income of $1150, while those employed on a part-time basis earned $670 (table C.14). On average, full-time trainers and assessors employed in the TAFE sector as their main job in 2006 earned an average gross income of $1180 per week, while all part-time trainers and assessors earned $806 per week. The narrower gap in the TAFE sector could be due to differences in the average number of hours worked.

More recent data from TAFE administrative databases show significant variation in the wages of trainers and assessors across jurisdictions, with full-time workers in New South Wales earning the most (table C.15).[8] The full-time wages of other VET professionals are similar across jurisdictions, and in all jurisdictions they are higher than wages of trainers and assessors and general staff. General staff tend to earn similar full-time wages across most of the jurisdictions.

Estimates by the Commission using survey data show that VET trainers and assessors employed on a casual basis earn higher hourly wages than VET trainers and assessors in other modes of employment (chapter 7). In the TAFE sector, this was apparent across all jurisdictions for which data were available (table C.15). This differential is partly attributable to the fact that wage instruments typically include a casual wage loading for course preparation and marking.

Qualifications

It appears that not all VET trainers and assessors possess the TAE40110 Certificate IV in Training and Assessment (TAA) or equivalent educational qualification required as a minimum qualification for teaching in VET. A precise profile of qualification holding among trainers and assessors, however, is difficult to attain because many data collections refer to workers' highest level of qualification and most trainers and assessors hold vocational qualifications at a higher level than their teaching qualifications, reflective of their industry expertise.

Survey data from DEEWR (2010i) provide one indication of the share of trainers and assessors holding VET teaching qualifications (including the Certificate IV in TAA), and not just as their highest level of qualification. According to the DEEWR survey sample of 1452 trainers and assessors from a range of providers, VET teaching qualifications are held by about 90 per cent of trainers and assessors in TAFEs and 80 per cent of trainers and assessors employed by non-TAFE providers.

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[8] Wage data for some jurisdictions are not comparable. See notes for table C.15.

The Commission considers that these figures are significant overestimates, due to the fact that the DEEWR survey is likely to have undersampled non-permanent employees.

TAFE administrative data provided to the Commission by one large VET-providing jurisdiction indicated that, at a conservative estimate, about 60 per cent of TAFE trainers and assessors hold a Certificate IV in TAA or higher.[9] This implies that, potentially, up to 40 per cent of trainers and assessors in the public VET sector do not hold the minimum qualification for teaching in the sector.

It is not possible to construct a similarly robust estimate of the prevalence of teaching qualification holding in the non-TAFE sector. Previous studies have, however, pointed to this prevalence being much lower than in the TAFE sector (for example, Mlotkowski and Guthrie 2008).

A possible explanation for some trainers and assessors working in the sector without holding teaching qualifications is that they have had their competencies deemed to be 'equivalent' by their employers, outside of a formal Recognition of Prior Learning or Recognition of Current Competency process. Another explanation could be that they are at the commencement of their training role and are working under supervision.

Among the trainers and assessors who hold VET teaching qualifications, many have qualifications above the minimum requirement. Based on limited administrative data for one jurisdiction, about 40 per cent in TAFEs (for whom this information is available) have a qualification at Certificate IV level, about 25 per cent hold a Diploma, and the remaining 35 per cent hold a bachelor degree or higher. The distribution of VET teaching qualifications in the non-TAFE sector is not known.

In terms of highest educational attainment more generally, nearly all VET trainers and assessors in the TAFE sector, and about 80 per cent in the non-TAFE sector, hold a post-school qualification (table C.16). Among these trainers and assessors, those employed in the TAFE sector generally have a higher qualification level than those in the non-TAFE sector, and are more likely to hold this qualification in the field of education. About half of all trainers and assessors in the TAFE sector, compared to about 20 per cent in the non-TAFE sector, have an education qualification as their highest attainment (table C.17).

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[9] This assumes that trainers and assessors for whom data are missing or unknown do not hold the Certificate IV in TAA or higher.

Up to 40 per cent of TAFE sector workers who work as trainers and/or assessors do not have the necessary minimum educational qualification for VET practitioners — namely, the TAE40110 Certificate IV in Training and Assessment or an equivalent qualification (noting that it is not a statutory requirement if they are supervised by someone who does). No corresponding estimate is available for the non-TAFE sector, but the figure is likely to be higher.

Demographic characteristics

Age

The VET workforce — particularly the TAFE workforce — is older than the overall labour force. The average age of trainers and assessors was 49 years in the TAFE sector in 2010 and 44 years in the non-TAFE sector in 2006 (tables C.18 and C.19). This compares with the average age of all Australian workers of 40 years. Although about 25 per cent of Australia's labour force is aged 50 years or older, about 30 per cent of non-TAFE trainers and assessors, and almost half of all TAFE trainers and assessors, fall into this age bracket. The older age profile of trainers and assessors is not surprising, given that many have had an industry career earlier in their working lives.

The average age of other VET professionals is generally older than that of trainers and assessors and the total labour force. The age profile of general staff more closely matches that of the wider labour force. In the TAFE sector in 2010, the average age was 52 years for other VET professionals and 45 years for general staff (table C.19).

A comparison of jurisdictions, for the TAFE workforce as a whole, reveals that New South Wales has a relatively older TAFE workforce than other jurisdictions (average age of 50 years), while the Northern Territory has the youngest (44 years) (table C.19).

Gender

Compared with the average mix of workers in the labour force (comprising 54 per cent males and 46 per cent females), the VET sector has a higher share of female workers (table C.20). In both the TAFE and non-TAFE sectors, nearly 60 per cent of the VET workforce is female. Almost 60 per cent of all non-TAFE

trainers and assessors, and about 50 per cent of TAFE trainers and assessors, are female. This characteristic is likely to be partly reflective of the types of occupations that constitute the VET workforce. For example, the majority of teachers and education reviewers and advisors are female. There was little variation in the male-female share of the TAFE workforce across jurisdictions (table C.21).

Indigenous status

In both the TAFE and non-TAFE sectors, about 1.3 per cent of trainers and assessors, and 1.7 per cent of all VET workers, identify themselves as Indigenous (table C.22). This is relatively close to Indigenous workers' representation within the total labour force, at about 1.4 per cent. Indigenous workers represented a slightly higher share of other VET professionals in the TAFE sector and of general staff in the non-TAFE sector.

For the TAFE workforce, the proportion of Indigenous workers varies little between jurisdictions, with the notable exception of the Northern Territory, where more than 10 per cent of trainers and assessors identified as being Indigenous (table C.23). This reflects more closely the composition of the Northern Territory's resident population.

Workers with disability

Drawing upon ABS Census data, less than one per cent of all VET workers report having disability, in terms of needing assistance with core activities (table C.24). This figure was the same for the TAFE and non-TAFE sectors, and was very close to the labour market average of 0.6 per cent based on the same definition and data source. Across jurisdictions, Queensland reported the highest rate of disability in its TAFE workforce (table C.25).

Workers from overseas

About 5 per cent of TAFE trainers and assessors, and 8 per cent of non-TAFE trainers and assessors, were born overseas and arrived in Australia in 1990 or later (table C.26). This share was higher among other VET professionals and general staff. The overseas-born shares for the VET workforce are broadly comparable with the share of nearly 10 per cent of all workers in the total Australian labour force who were born overseas and arrived within this time frame.

Workers from non-English speaking backgrounds

About 10 per cent of all VET trainers and assessors, in both the TAFE and non-TAFE sectors, report speaking a language other than English at home (table C.27). Most workers claim to be proficient in their English language ability, but a very small number report poor English proficiency.

3.4 Career pathways of VET workers

Given the 'dual professional' nature of the VET workforce, most trainers and assessors do not commence their working life in VET. Rather, they are more likely to work in a non-education industry and move into the VET sector later in their career. As several participants noted, this later career entry can arise from:

- individuals, due to age or injuries, no longer being able to work in a trade or area of specialisation (ACPET, sub. 50; The Gordon, sub. 9)

- individuals wanting to 'give something back' (The Gordon, sub. 9)

- individuals wanting an appropriate 'work-life balance' (ACPET, sub. 50)

- individuals wanting to learn new skills, change careers, or delay retirement (NSW Government, sub. 57; Minerals Council of Australia, sub. 23).

On joining the VET sector, some work as a casual, sessional or contracted worker initially, before moving into permanent employment (Simons et al. 2009). In contrast, others remain employed as casuals or sessionals throughout the course of a shorter career in VET, as a transition towards their retirement.

This section considers career pathways of VET workers, examining their entry and exit paths, job mobility within the sector, and the length of their tenures. The analysis is based on unpublished unweighted survey data for the VET sector from 2006 (Simons et al. 2009) and 2010 (DEEWR 2010i), and on unpublished administrative data for TAFEs for 2009-2010 (with one jurisdiction for 2008-2009). Quantitative analysis of factors that determine the duration of workers' careers in TAFE is based on administrative data.

Entry into VET

Survey data collected by DEEWR in 2010 reveal that most individuals currently working in VET have more than one reason for entering the VET workforce. The most common reasons given by trainers and assessors for deciding to work in VET were a desire to teach or give something back (66 per cent), the nature of the work

(38 per cent) and hours/work-life balance (31 per cent). Other VET professionals tended to enter VET due to the nature of the work (42 per cent) or because the job was available (36 per cent). This group was also attracted by the prospect of teaching (29 per cent) but, for many, this might have been associated with their entry as trainers or assessors and subsequent job change to other VET professional roles. Job availability (46 per cent) and the nature of the work (34 per cent) were the most common reasons for general staff coming to work in VET (table C.28).

Based on data collected by Simons et al. (2009), most individuals working in VET in 2006 entered the sector when aged 50 years or less, but about 10 per cent joined the sector at age 50 or older (table C.29).

Entry into TAFE

Administrative data specific to the TAFE sector shed light on the age at which these public VET workers first gained employment with their current institution, although their tenure in the VET sector overall is not known. Of those permanent and non-permanent employees recorded as working in a TAFE institute in 2010, 65 per cent joined their institute when between 31 and 50 years of age, and a further 20 per cent entered after age 50 (figure 3.1). This demonstrates that there is a sizeable replenishment of the TAFE workforce occurring from the ranks of older workers (or semi-retirees).

Moreover, the influx of short-tenure older workers in the 51–70 entry age group (the group labelled A in figure 3.1) is approximately the same size as the cohort of workers with longer tenures who are now approaching retirement (the sum of all areas labelled B). This suggests that potential retirement of the long-tenured cohort in the next ten years might be largely offset by another inflow of older entrants into the VET workforce, assuming that the current patterns continue.

Figure 3.1 **Employment duration by age at entry into TAFE teaching, 2010[a,b]**
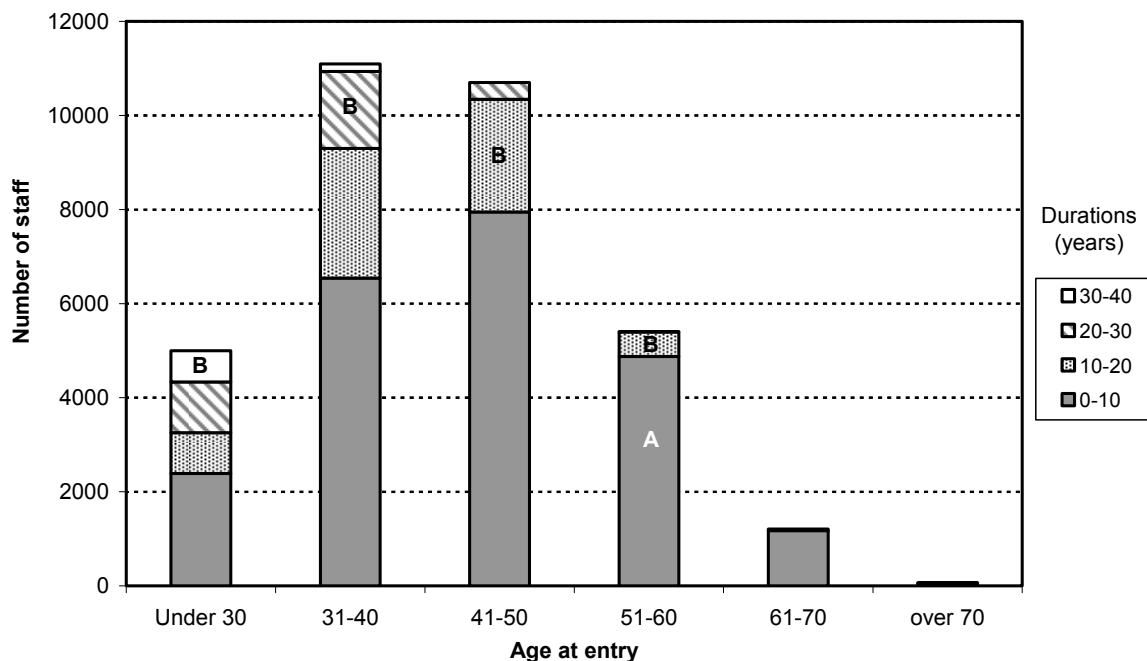
a Recent inflows, aged 51–70, are labelled A and potential outflows in the near future, aged 51–70, are labelled B. **b** Permanent and non-permanent employees.

Source: Productivity Commission estimates based on TAFE administrative data supplied by all jurisdictions except the Northern Territory.

The TAFE administrative data allow further examination of inflows and outflows of permanent and non-permanent trainers and assessors in 2010 (figure 3.2).[10] Individuals were counted towards the inflow or outflow of the TAFE workforce based on the commencement and separation dates recorded in their institution's administrative systems.[11]

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[10] Exact definitions and employment arrangements for casual staff vary by jurisdiction. However, these staff are paid by the hour and, in practice, are employed for an agreed period of time ranging from an hour or two as a 'one-off', through to a longer term and/or more predictable arrangement. If a separation date is given, casuals are assumed to have had no expectation of re-employment.

[11] Several assumptions are made. First, each individual is assumed to have one administrative record at an institution. Second, commencement is assumed to be the date on which the individual was first hired by the institution (after any prior separations). Third, job characteristics pertain to a point in time, and changes in individual employment characteristics are not captured in these data.

Figure 3.2 **TAFE trainer and assessor inflows and outflows by current age and contract type, 2010[a]**

Permanent trainers and assessors

Non-permanent trainers and assessors
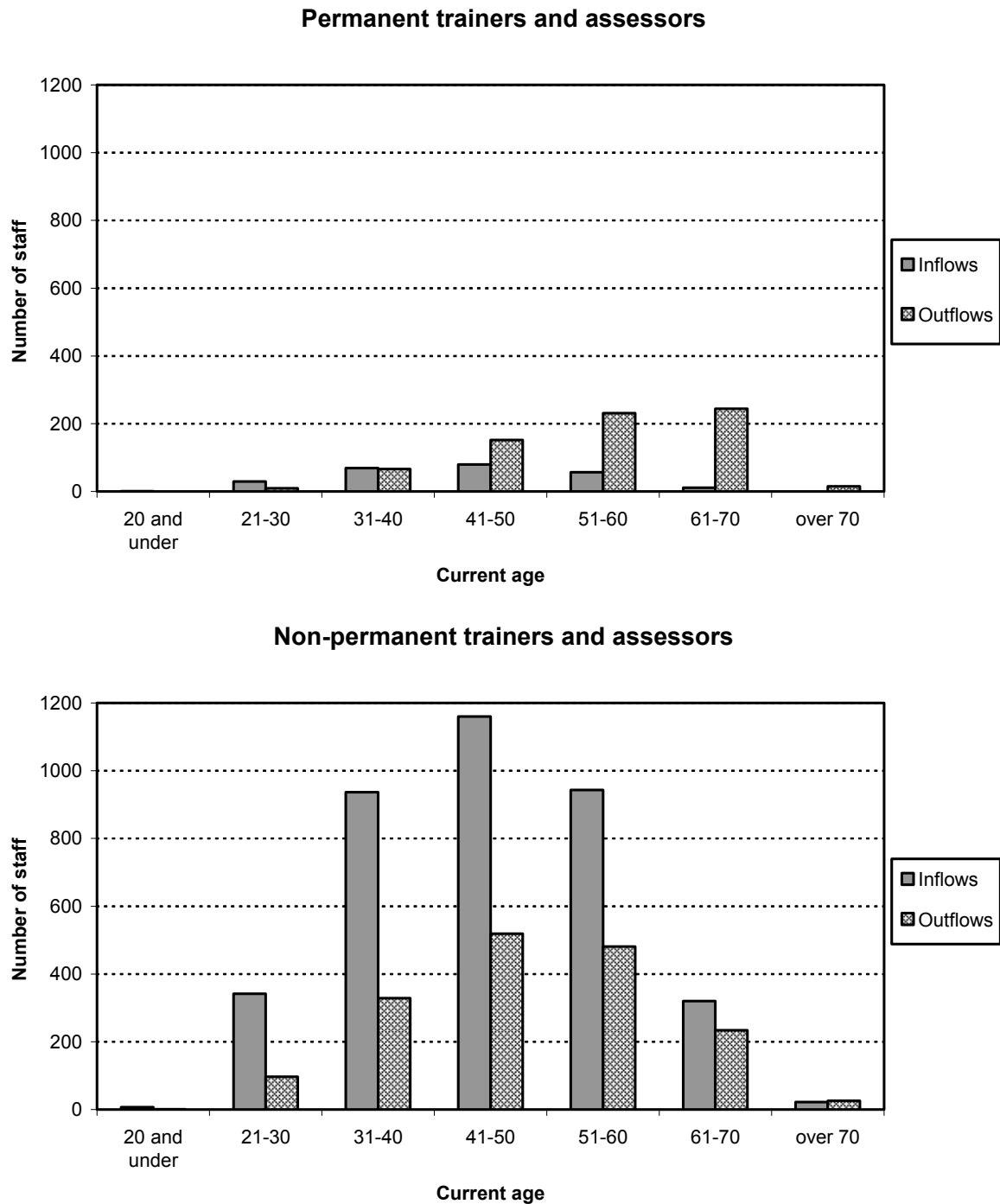
a Some outflows may result in inflows into other TAFE institutions.

Source: Productivity Commission estimates based on TAFE administrative data supplied by all jurisdictions except the Northern Territory.

During 2010, the total number of trainers and assessors who commenced employment with their TAFE institution exceeded the total number who left. Among permanent trainers and assessors in TAFE, however, the total number leaving (717) exceeded that entering (247). For non-permanent trainers and assessors, the reverse was true (1687 left, 3731 entered). This suggests that employers in TAFE are replacing some of the departing permanent staff with non-permanent staff. At the same time, it is not known whether employers have been converting existing non-permanent staff to permanent staff.[12]

Among permanent trainers and assessors, available data indicate that there was a net outflow at ages over 40. Non-permanent trainers and assessors experienced a net inflow at all ages except under 21 and over 70. Overall, net replenishment was occurring in every age group, except for the groups aged over 60.

Workers surveyed in 2006 joined the VET sector under a variety of employment arrangements. Trainers and assessors entered the sector through a mix of permanent (or ongoing) positions, fixed-term and casual positions (table C.30). In contrast, other VET professionals almost exclusively entered the VET workforce as ongoing staff. General staff tended to have either ongoing or fixed-term arrangements when they arrived. Across the VET sector, the entry of staff as contractors appears small.[13]

Among trainers and assessors, only about half joined the sector on a full-time basis. Most other VET workers were employed in full-time positions on entry (table C.31).

Prior to entering the VET sector, 73 per cent of VET workers were employed elsewhere in the labour force (table C.32), with their most common origin industry being education and training (accounting for 16.5 per cent of new recruits) (table C.33). Trainers and assessors also typically came from the industries of health care and social assistance, retail trade and manufacturing. Their backgrounds might be assumed to match their main areas of delivery in their VET jobs, but this cannot be verified. General staff came from a similar cross-section of industry, but with a higher proportion originating in administrative and support services, reflecting the nature of the tasks that general staff perform. There were 27 per cent of workers who did not have a job prior to entering the VET sector.

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[12] Some departing permanent staff may move to a different TAFE institute. Outflows due to churn would not represent a staff loss to the overall TAFE sector.

[13] This is on the assumption that contractors are labelled as self-employed consultants or are employed on a non-fixed-term contract.

Tenure in VET

The average tenure of VET workers employed in 2009-10 was 5 to 10 years. However, there was significant dispersion within groups. Among the trainers and assessors, 43 per cent had been employed in the sector for 10 years or more and only 14 per cent had worked in VET for less than 2 years (table 3.1). Conversely, 33 per cent of general staff had joined the sector within the last 2 years, while 28 per cent had been part of the sector for 10 years or more.

Workers in private RTOs and other RTOs (mostly ERTOs) had a shorter average tenure of about 5 years, compared to that for TAFE at more than 10 years.

Among trainers and assessors, there is an apparent lack of experience in private and other RTOs, relative to TAFEs — 25 per cent of trainers and assessors in TAFE had tenure in VET of less than 5 years, whereas this least experienced group of trainers and assessors made up 58 per cent of staff in private RTOs and 50 per cent in other RTOs. This very high level is likely to be associated with the rapid expansion of non-TAFE RTOs over the past five years (chapter 2). The implications of this (in)experience for student outcomes is discussed in chapter 9.

Job mobility in VET

According to survey data for 2006 (Simons et al. 2009), job mobility within VET was quite common, with about 83 per cent of workers changing jobs in the course of their VET career (table C.34). On average, workers changed jobs about three times during their career, with little variation between trainers and assessors, other VET professionals and general staff. It was uncommon, however, for workers to change their broad occupational role, although there was some movement from trainers and assessors to other VET professionals (table C.35).

Mobility data for 2010 indicate that 73 per cent of VET trainers and assessors who are now permanent or ongoing originally joined the VET sector as casuals or fixed-term employees (table C.36). Movement into more permanent employment was higher for other VET professionals and general staff at 86 and 89 per cent, respectively. There was also a tendency for those who began in part-time positions to move into full-time positions (table C.37).

Conversely, of those who started out in permanent positions, about 16 per cent moved to positions covered by fixed-term contracts and about 8 per cent of workers who started in full-time employment ended up in part-time or casual positions. For some workers, these moves might reflect a transition into retirement.

Table 3.1 Tenure in the VET sector by current position and current employer, 2010[a]

Per cent of workers (unless otherwise stated)

	Trainers and assessors	Other VET professionals	General staff	Total VET workforce
TAFE				
Less than 2 years	7	15	25	13
2 to less than 5 years	18	14	25	18
5 to less than 10 years	20	17	15	18
10 years or more	56	54	35	51
Total (number)	883	506	324	1 713
Private RTOs				
Less than 2 years	28	24	58	31
2 to less than 5 years	30	27	23	28
5 to less than 10 years	23	27	15	23
10 years or more	19	22	5	18
Total (number)	298	245	88	631
Other RTOs[b]				
Less than 2 years	22	15	37	22
2 to less than 5 years	28	24	24	26
5 to less than 10 years	24	22	15	22
10 years or more	26	39	24	31
Total (number)	254	222	100	576
Total VET sector				
Less than 2 years	14	17	33	18
2 to less than 5 years	22	19	24	22
5 to less than 10 years	21	21	15	20
10 years or more	43	43	28	40
Total (number)	1 435	973	512	2 920

a These data include time worked with any previous VET employers. **b** Comprises respondents from ERTOs, ACE providers and other RTOs.

Source: Productivity Commission estimates based on unpublished data from DEEWR (2010i).

There was a strong tendency (80 per cent) for VET workers to be observed working with the same type of employer in 2006 as that with which they began their VET career (table C.38). However, real mobility among these workers was actually much higher than suggested, as many of these workers changed employer type during their career, before returning to their initial employer type. For example, only about 20 per cent of workers who were employed initially at TAFE remained there throughout — the remaining 80 per cent spent some time outside TAFE before returning to that sector (table C.39).

Exits from VET and TAFE

Overall, about 7 per cent of all workers currently in VET plan to exit the sector within the next 12 months, with no notable variation between trainers and assessors, other VET professionals and general staff (table C.40).

Intentions to exit the VET workforce, for any reason, are most prevalent among individuals currently aged 65 years and over, with retirement the most common reason given (table C.41).[14] Retirement figures much less prominently as an intended reason to exit the VET workforce for the 55-64 age group. Although 8 per cent of that group expressed an intention to leave within 12 months, less than 4 per cent intended to do so due to retirement.

That said, 63 per cent of those aged 65 years or older, and 75 per cent of the group aged 55 to 64 years, expressed an intention to remain in the VET sector in the next 12 months.[15] Based on these figures, early exit and/or retirement of VET workers does not seem to be a looming problem.

For those intending to leave the VET sector, the most common reasons given include poor management (41 per cent), a lack of career opportunities (33 per cent) and pay rates being too low (32 per cent) (table C.42).

As measured by the height of the curves in figure 3.3, in the first 35 years of employment with a TAFE institute, the probability of remaining is lowest for general staff, implying that they are the most likely to leave their TAFE employer.[16] For example, after 20 years in the same TAFE institute, trainers and assessors and other VET professionals have a 0.91 probability of remaining (or a 0.09 probability of leaving the institution), whereas general staff have a 0.86 probability of remaining. At about 40–55 years of employment, very few trainers and assessors leave their TAFE institute, as reflected in the flat sections of

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[14] Further, survey data for 2006 showed that around 60 per cent of workers aged over 60 years intended to remain in the sector for the next 5 years (Productivity Commission estimates based on unpublished data from Simons et al. (2009)).

[15] Seventeen per cent of respondents aged 65 years and over were unsure about their intentions to retire in the next 12 months.

[16] Statistically, there is no difference in the probability of remaining for trainers and assessors and other VET professionals. Estimated precision declines as durations increase, so that, even for durations exceeding 40 years, the corresponding interval estimates still overlap.

the relevant curve.[17] The initial drop in the probability of general staff remaining in the same TAFE institute mostly reflects the end of short-term contracts.[18]

Figure 3.3   **Probability of remaining in TAFE, permanent and fixed-term employees only**
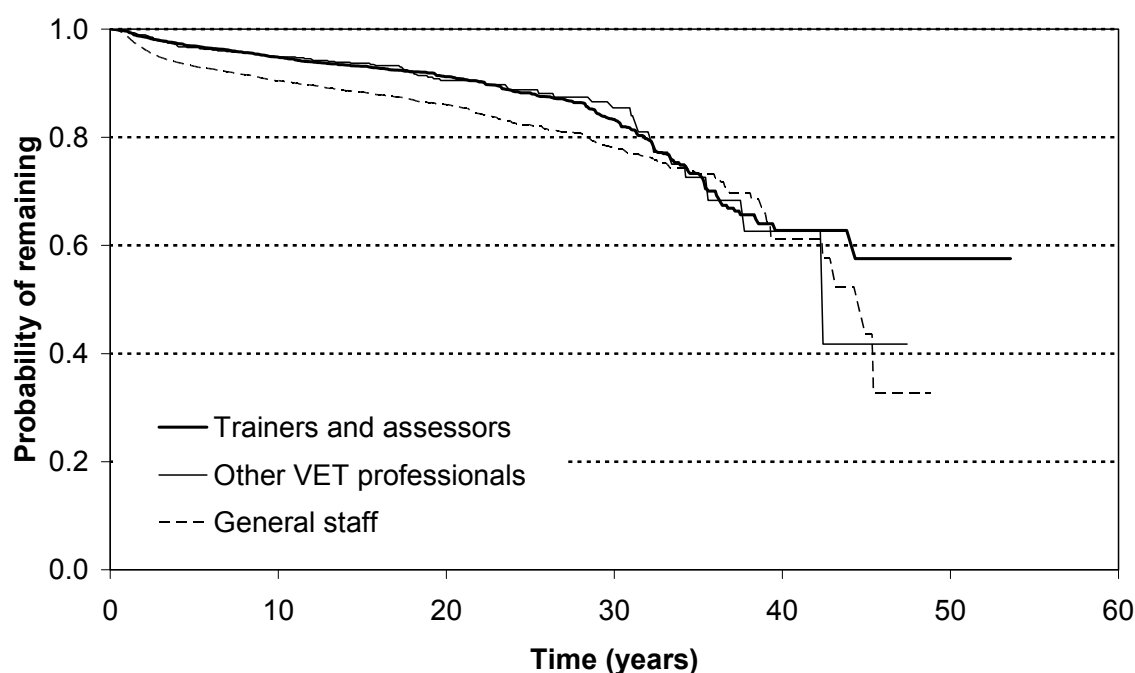
Factors influencing career durations in TAFE

The Commission has used multivariate modelling to identify the factors that affect ongoing and fixed-term workers' career durations in TAFE. This modelling points to a range of factors that are significantly associated with job duration. The findings might have implications for retention strategies, discussed in chapter 7.[19]

After controlling for other sources of difference, males are likely to spend about 17 per cent less time working in TAFE than females. Therefore, if the average

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[17] This is partly the result of having a small number of workers in the data with very long tenures.

[18] The duration analysis included here and in the next section excludes casuals as the tenure information might not be reliable and comparable for all states for this purpose.

[19] Results from this modelling have changed from those in the Draft Report due to the inclusion of data for New South Wales, updated data for Victoria, and the use of a more appropriate statistical model.

tenure for females was 10 years, then, *ceteris paribus*, the corresponding tenure for males would be almost 8 years and four months. TAFE workers are estimated to remain with their employer for about 17 per cent longer as they get older by one year, although the strength of this effect declines with age (table 3.2).[20]

Table 3.2   Factors affecting TAFE employment duration in 2010[a], permanent and fixed-term employees only

Variable	Relative employment duration[b]
Age	1.1723 ***
Age squared	0.9986 ***
Males relative to females	0.8321 ***
Ongoing	4.0465 ***
Weekly hours	1.0337 ***
Hourly wage	1.0158 ***
Trainers and assessors	1.4075 ***
Other VET professionals	1.0425
New South Wales	3.0091 ***
Victoria	1.1403
Queensland	11.5002 ***
South Australia	2.1362 ***
Western Australia	1.2552 **
Tasmania	3.7002 ***

a A full set of results is available in table C.43. **b** The time ratio, indicating the proportionate change in the duration of employment in TAFE. A value of less than one indicates a shorter duration as the associated variable increases. For example, the estimated duration is 17 per cent shorter (that is, 83 per cent of its value) for males than females. *** Significant at the 1 per cent level. ** Significant at the 5 per cent level.

Source: Productivity Commission estimates based on TAFE administrative data supplied by all jurisdictions except the Northern Territory.

Ongoing staff are likely to spend four times longer working in TAFE than staff on fixed-term contracts. As hours worked per week increase by one, individuals become likely to increase their tenure in TAFE by about 3 per cent. This might reflect greater staff satisfaction with full-time than with part-time positions. Increases in hourly wages make TAFE positions more financially attractive, relative to competing positions, thus increasing durations (marginally).

At most points in time, the probability of remaining in TAFE is significantly lower for general staff (figure 3.3), relative to trainers and assessors and other VET professionals, implying shorter durations for general staff. However, multivariate modelling reveals no significant difference in employment durations for general staff and other VET professionals — any difference in their employment durations has been accounted for by other factors in the model.

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[20] Details of the modelling are given in appendix C. A full set of results is available in table C.43.

For individuals who work in Victoria or the ACT (the latter is the omitted category), the probability of remaining in TAFE is essentially the same (not shown). These individuals are likely to have shorter durations in TAFE than their counterparts in other jurisdictions. TAFE workers in Queensland are those shown to spend the longest time in a TAFE job. Differences in job duration across jurisdictions might be due to a number of factors, including differences in regulatory arrangements and superannuation.

FINDING 3.2

The VET workforce can be characterised as:

- *having a predominance of dual professionals, with both vocational and educational skills*

- *being older than the wider labour force, as most VET workers gain industry experience before joining the sector later in their working life*

- *having high rates of non-permanent employment, compared to the general workforce*

- *being highly mobile, with over 80 per cent changing jobs within the sector during their career.*

The intentions of many older VET workers to keep working, and the sizeable inflows of new workers into the sector (including older workers), should contribute to the aggregate supply of VET workers in the short and medium term.

4 Government involvement in the VET sector

Key points

- There are a number of rationales for government intervention in the market for VET services, including to:
  - overcome market failures relating to the broader community benefits of education and information limitations about the quality and benefits of education
  - ensure equitable access to VET, by subsidising participation for disadvantaged groups or providing them with access to credit.
- Governments are involved in the sector through direct funding of providers and students, the provision of information, assessing the workforce needs of the economy, and regulation.
- Use of explicit on-budget community service obligation payments to both publicly- and privately-owned VET providers (to compensate for the provision of non-commercial activities) has the potential to improve transparency regarding their viability, while also improving competitive neutrality across providers.
- In recent years, there has been a rising trend to harness market forces in the allocation of VET services. Principles such as user pays and user choice increasingly underpin VET policy. This trend is likely to continue.
- As the VET sector becomes increasingly competitive, a move towards greater managerial independence for public providers would give them the autonomy and flexibility they need to respond.

The Commission is asked, in its terms of reference, to consider the 'policy, governance and regulatory measures to maximise the efficiency and effectiveness of the workforce'. This chapter, accordingly, discusses the rationale for government involvement in the Vocational Education and Training (VET) sector and the nature of that involvement. The public and private benefits of education and training are discussed in section 4.1. Section 4.2 explores the rationales for government activity in the sector and 4.3 outlines the specific ways in which the Australian, State and Territory Governments are currently involved in the sector. Section 4.4 considers

the growing role of market forces in the sector and the recent policy shift towards greater contestability and competition.

4.1 Public and private benefits of education and training

The benefits of education and training, including VET, can be both 'private' and 'public' in nature.

Private benefits

Private benefits are predominately those captured directly by recipients of education and training. The economic literature linking education to subsequent higher levels of income and higher rates of employment is well established. Recent studies (Lee and Coelli 2010b; Wilkins et al. 2010; Chapman et al. 2007; Leigh 2008) all confirm this link in the context of VET in Australia. The Commission's own work has also explored, in part, the link between VET and higher wages (Forbes et al. 2010). This research showed that, compared with a person with a Year 11 education or less,[1] a man with an Advanced Diploma, Diploma or Certificate III or IV earns on average about 14 per cent more, and a woman earns about 11 per cent more.

Studies have also demonstrated the importance of VET for early school leavers. Lee and Coelli (2010b) show that VET (in particular, Certificates I and II) are of most benefit, in terms of labour market outcomes, to that group. One of the mechanisms through which this is thought to occur is through the provision of literacy and numeracy skills. VET is an important source of such foundation skills (chapter 2). These skills confer labour market advantages. Shomos (2010) found that an improvement in literacy and numeracy skills from level 1 (low) to level 3 (that deemed to be required for an individual to function effectively in a complex environment) is associated with an increase in hourly wage rates of about 30 and 25 per cent for men and women, respectively.

The Student Outcomes Survey conducted by the NCVER also reports on a number of private benefits associated with undertaking VET. For example, in 2010:

- of graduates employed before training, 18.6 per cent were employed at a higher skill level after training

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[1] Includes those who hold a Certificate I or II, but have not completed Year 12.

- 70.9 per cent of graduates employed after training reported receiving a job-related benefit from the training

- 52.5 per cent of module completers employed after training reported receiving a job-related benefit from the training

- of the graduates not employed before training, 42.8 per cent were employed after training. (NCVER 2010d)

Payment of higher wages to people with higher levels of education reflects their higher productivity relative to people with lower educational attainment. Private benefits also accrue to enterprises, either from providing education and training directly to their employees, or from purchasing education and training on their behalf.

Public benefits

Public benefits (or 'positive externalities' or 'positive spillovers') stemming from education and training are those captured by individuals, organisations or other members of the broader community ('third parties') that were not parties to the initial training transaction. This type of benefit can be less tangible than private benefits. Examples of some of the public benefits attributed to education include:

- benefits to third parties stemming from investments in education which accelerate rates of innovation, the development of basic knowledge capabilities and diffusion of new ideas among firms and others. The conditions under which these spillovers occur and their policy ramifications are more fully discussed by the Commission in its 2007 report on public support for science and innovation (PC 2007)

- community health benefits stemming from increased knowledge of beneficial or harmful activities. For example, benefits that accrue to external parties by learning behaviour that limits the spread of communicable diseases (OECD 2007)

- benefits relating to social cohesion and unity (Burke 2002; Gradstein and Justman 2002)

- support to the functioning of a democracy (Barro 1999; Dee 2004)

- lower levels of criminal activity (Wolfe and Haveman 2000; Lochner and Moretti 2004).

The last four categories might be thought of as 'civic' benefits of education and training. These are typically associated more closely with primary and secondary education than with participation in VET or higher education. However, to the

extent that VET is able to remedy the foundation skill deficits of some learners, it might also generate significant benefits of this type.

4.2   Rationales for government intervention in VET

Were the market for VET services left to operate as a 'free market', it is likely that there would be a number of 'market failures', with outcomes being sub-optimal from a community-wide perspective. Government intervention (setting aside the possibility of government failure) that addresses these market failures in a cost-effective manner will enhance efficiency.

Government intervention can also be used to pursue equity objectives (for example, to ensure that VET is available where it otherwise would not be, or to overcome credit constraints) or other objectives.

Efficiency

There are a number of efficiency rationales for government intervention in the market for VET services. In particular, government intervention can remedy the underprovision of VET that arises in free markets due to the presence of positive externalities, information asymmetries, or due to the non-excludable nature of some learning.

Underprovision due to externalities

As mentioned above, there are a number of positive externalities associated with education. These external benefits are typically not considered in an individual's decision to undertake training. As a result, the free market will provide less than the optimum level of training (from a community-wide perspective). This underprovision might, in some circumstances, warrant a government subsidy for VET services. The subsidy would encourage individuals and/or firms to invest more in training. Subsidies currently paid by the Commonwealth, State and Territory Governments to increase VET provision are significant (section 4.3).

Information asymmetries

Information problems exist in VET as in almost all markets. Students have less information about the quality of courses than training providers do. This can deter people from undertaking training, or lead to students being 'ripped off'. International students might be particularly vulnerable to false advertising and other

such practices (Australian Government 2010). Similarly, firms purchasing VET for their employees might lack information on the relevance and quality of available training options, compared with VET providers.

Some participants have suggested that 'myopia' is another information problem in VET, and in education more generally. The perception of students as myopic about future returns often springs from the fact that they must make decisions under considerable uncertainty. The value of education is uncertain since the benefits are long term, whereas the costs are short term and apparent. Uncertainty about the benefits can arise from:

- uncertainty about the length of one's life

- uncertainty about one's ability

- numerous other unforeseeable events, including employment opportunities, over the life cycle of the investment (Becker 1993).

In addition, students might also lack information relating to the labour market, such as expected wages, both upon graduation and over their working-life cycle.

Industry, and individual employers, are also believed to be myopic by some. In consultations, the Commission heard that some industry sectors that had raised concerns about skill shortages in recent years had also failed to upskill their workforces or invest in skill capacity renewal during downturns. However, although analysis by the NCVER shows some evidence of declines in apprentice commencements during downturns, this phenomenon appears to be small and confined to particular trades such as construction, while being absent in many other sectors (Karmel and Rice 2011).

A further example of myopia at an industry level concerns firms hiring workers from the VET sector, with possible long-term consequences for the sustainability of the VET sector's operations, and flow-on negative effects for the firms themselves. Polytechnic West (sub. 5) noted that the mining boom in Western Australia had resulted in a localised shortage of staff working in the VET sector. While hiring trainers and assessors from the VET sector likely makes sense for an individual firm in the short run, it can impose negative externalities on all firms in the long run, by making the supply of skills unsustainable.

Non-excludability or 'free-riding'

Outcomes from training have some 'public good' characteristics in that, once these outcomes are produced, those who have not paid for them might not be easily excluded from reaping the rewards. The productivity benefits to a firm from

purchasing training for its employees are a case in point. Many employee skills are generic (rather than firm specific) and, as such, are transferable to jobs in other firms. Such skills are important for the efficient allocation of labour across industries. As noted by a study participant, 'general skills provide economy wide efficiency gains, especially improved labour market mobility' (Phillip Toner, sub. DR79, p. 5). Unfortunately, employers tend to under-invest in these skills, because of the risk that a 'free riding' firm will poach the worker, once he or she has been trained.

Economic theory suggests that the cost of general training should be largely met by the employee, as it is the employee who ultimately claims most of the benefits, through higher wages (Becker 1993). However, in practice, labour market distortions, barriers to employees funding or undertaking their own training, an inability to bargain over the terms of training provision, or a lack of recognition of higher skills by their employers, might mean that employees themselves can underspend on general training.

For a range of reasons, therefore, the provision of general training in a free market would likely be sub-optimal from a community perspective, and cost-effective government intervention is warranted.

One example of such government intervention is with respect to apprenticeships. In that market, governments make payments to firms that engage and retain apprentices and trainees, thus reducing the disincentives created by free-riding. Employers are also compensated for the risk of poaching through being permitted to pay lower, 'training wages' to apprentices.

Equity

Governments typically consider that access to VET would be inequitable in a free market. Affordability issues facing poorer students can entrench inequality, given the potential for education to lift people's incomes. This inequality can have inter-generational consequences and lead to so-called 'poverty traps'. There may also be other factors restricting access to VET for a range of equity groups. Credit constraints and thin markets might result in little or no access for some groups of students. The National VET Equity Advisory Council is responsible for developing national policies aimed at ensuring equitable access to VET (box 4.1).

> **Box 4.1   The National VET Equity Advisory Council**
>
> In November 2008, governments agreed to establish a new equity advisory body, the National VET Equity Advisory Council (NVEAC). The NVEAC's role is to provide advice to the Ministerial Council for Tertiary Education and Employment (MCTEE) on the issues and barriers that affect the access, participation and outcomes, of students from disadvantaged groups. Recognising that many clients in the VET system experience multiple disadvantage, it aims to identify shared priorities for all equity groups, building on the work of previous advisory groups (in particular, the Disability Advisory Taskforce, the Equity Advisory Taskforce and the Indigenous Advisory Taskforce).
>
> The NVEAC comprises a Chair and eleven Members with links to a range of stakeholder groups including Indigenous and disability advocates; public, private and community training providers; industry, employer and employees; students of the VET system; and Commonwealth and State and Territory Governments (NVEAC 2010a; 2010b).
>
> The NVEAC has developed an *Equity Blueprint* that highlights the major changes it sees as desirable if the VET system is to make a difference to learners who experience disadvantage. This framework outlines four key areas in which the capability of the workforce could be enhanced to meet the needs of disadvantaged learners:
>
> - A unified national framework for building capability across the whole VET workforce.
>
> - Reforming the Certificate IV in Teaching and Assessment.
>
> - An increase the number of VET workers with specialist skills, such as cross-cultural competencies and in foundation skills delivery, as well as core skills, such as industry engagement and workplace training.
>
> - An increase in the diversity of the VET workforce. (NVEAC, sub. 58)
>
> The workforce implications of greater participation by students from equity groups is discussed further in chapter 6.

The 2008 Bradley Review of higher education recognised the importance of including all groups from society in the sector to maximise the nation's potential:

> An effective higher education sector which makes greater use of Australia's human capital enhances national productivity and global competitiveness. However, Australia has not provided equal access to all groups from society. People from lower socio-economic backgrounds, those from regional and remote Australia as well as Indigenous Australians are under-represented in higher education … barriers to access for such students include their previous educational attainment, no awareness of the long-term benefits of higher education and, thus, no aspiration to participate. (Australian Government 2008, p. 27)

The Review found that the VET sector is better than the higher education sector at attracting disadvantaged students, although they are typically concentrated in Certificate I or II courses.

As a consequence, the Review recommended that the Australian Government set a target that, by 2020, 20 per cent of higher education enrolments at undergraduate level should be by people from low socio-economic status backgrounds. The Australian Government subsequently adopted this target as the foundation for the policies of the Higher Education Participation and Partnerships Program. This might have contrasting ramifications for the VET sector. On the one hand, more students from these target groups might enter VET, as a 'stepping stone' to university when they would otherwise not have enrolled in VET. The Australian College of Educators contended that the higher education sector will fail in its 'own equity goals without VET on board and able to deliver' (sub DR95, p. 1). On the other hand, some students from disadvantaged backgrounds, who would have traditionally used VET services, might instead go directly into higher education. Even if they were to attend VET as a precursor to university, these students might trigger a change in the profile of VET delivery, favouring courses with clear pathways to university.

Credit constraints

It is often argued that there are credit market failures in a free market for education because of the reluctance of financial institutions to lend money to students to undertake education (Becker 1993; Chapman et al. 2007). Although education represents an investment in human capital, this is not an asset that can be used as collateral for a loan, in the same way that physical capital can. In the absence of government intervention, this characteristic of human capital could 'lock out' potential students with good financial prospects but limited resources. Typically, governments respond by implementing loans schemes and/or providing direct VET subsidies or student assistance.

'Thin markets'

A further concern in the VET sector relates to 'thin markets', where the actual or potential number of learners is too small, relative to the cost of delivery, to sustain efficient provision. Some remote and sparsely populated areas are an example of markets where, even absent market failure, VET services might not be delivered directly by providers. Urban areas with a high proportion of low socio-economic status households might be similarly not well catered for. In these circumstances, governments might decide to fund the additional cost of delivery, for equity reasons.

Traditionally, the public VET sector has played a dominant role in the equity-motivated delivery of VET. In a submission, the New South Wales Department of Education and Training stated:

> [Technical and Further Education] services are available across the State, placing TAFE NSW in a unique position to support the longer term strategic objectives of Government in relation to economic, industry and community development. It is this strategic role that further distinguishes TAFE NSW from other providers [focused] primarily on returns to stakeholders. For example, in relation to:
>
> - regional development — TAFE NSW does not avoid thin markets although the cost of delivery in newly developing or relatively remote areas is significant; and
>
> - industry development — requiring substantial infrastructure investment in areas where enrolment numbers may be unpredictable. (sub. 57, p. 22)

Conversely, the private VET sector is regarded by many as not engaging sufficiently with thin markets. Polytechnic West, for example, claimed that 'private providers are notorious for selecting delivery areas that are high profile and high return, leaving the less profitable (i.e. thin markets) to the publically funded sector' (sub. 5, p. 6).

However, as advanced by ACPET:

> Some of the initiatives which private [Registered Training Organisations] RTOs implement to aid successful outcomes include convening courses despite small class sizes, responding in a practical fashion to unusual and diverse needs at any time and place, managing limited resources stringently and with innovation, and focusing on flexibility. (sub. DR98, p. 3)

In any event, there is debate within the sector about the significance of 'thin markets'. Work by Ferrier et al. (2008) cited some industry stakeholders' belief that the perception of thin markets might be 'overstated' or 'artificial' in some cases. They point out that there are instances when there is considerable demand for training in a particular industry, area or region, but not necessarily for the precise training delivered by the formal VET system. This latent demand might not be recognised by providers and lead to the erroneous conclusion that the market is thin.

Governments partly address 'thin markets' by funding providers — both public and private — in those markets at a higher rate, in recognition of the higher cost of delivery. For example, some jurisdictions' Technical and Further Education (TAFE) funding arrangements include a payment loading for delivery in regional and rural areas (box 4.2).

Beyond these loadings, there are strong arguments for governments setting up formal community service obligation (CSOs) payments to providers delivering in thin markets. This would allow such subsidies to be transparent and would enable

their regular review as part of budget processes. There is further discussion of CSO payments in section 4.3.

Box 4.2   Funding arrangements for the provision of VET to disadvantaged groups in New South Wales

Under the *Technical and Further Education Act 1990,* s. 6.1 (e), TAFE NSW is required to 'provide educationally or vocationally disadvantaged groups (such as women, Aborigines, persons of non-English speaking background, persons with disabilities and persons in rural areas) with access to technical and further education services'.

The New South Wales Department of Education and Training funds the TAFE NSW institutes (using a system of financial loadings) in a manner that takes account of the additional cost associated with delivery to those who face disadvantage. In particular, the Apprenticeship and Traineeship Program pays the following loadings:

- a loading of 15 per cent where the address of the workplace of the apprentice or trainee is outside the Sydney, Illawarra or Newcastle divisions

- a loading of $400 for a Certificate II traineeship and $800 for a Certificate III or IV apprenticeship or traineeship, delivered to Aboriginal and Torres Strait Islander peoples or people with disability.

Under the Strategic Skills Program, training providers tender a price per contact hour in a qualification, unit or course. A price loading can be tendered for job seekers, young people (15–19) not enrolled in school, young people looking to enrol in a higher qualification than previously attained, Indigenous Australians, people with disability and people aged 40 years and over.

Source: NSW Government, sub. DR82.

Broader government objectives

Governments also seek to ensure that the VET sector's activities are consistent with national objectives in particular areas. For example, governments have acted to ensure that skills relating to environmental sustainability are an integral part of VET courses. A *National Green Skills Agreement* was endorsed at the December 2009 meeting of the Council of Australian Governments (COAG), committing the Australian, State and Territory Governments to work with training organisations and business towards this objective (COAG 2009c). In addition, the Australian Government has announced that all apprenticeships and VET Training Packages would be reviewed by March 2010 to ensure that they include relevant green skills, and that all courses would be revised to include the new green skills by the end of 2010 (Gillard 2009).

It could be argued that government intervention to enhance the green skills content of training is designed to remedy market failures that result in the underprovision of this type of training. In this case, however, the market failure does not lie with the training market but with the wider market for goods and services, where price signals to economise on, for example, carbon emissions are lacking.

4.3 Forms of government intervention in VET

Governments in Australia intervene in the market for VET services in a number of ways. They subsidise VET by providing funding to institutions, students and employers. They also attempt to address information asymmetries by directly providing information, regulating the sector, and conducting large-scale, multi-sector workforce assessments and planning.

Funding

One of the main ways in which governments intervene in the market for VET services is to subsidise VET. This type of intervention might be warranted on both efficiency and equity grounds, with efficiency-related funding directly addressing underprovision arising from externalities, and equity-related funding seeking to fund access to VET by disadvantaged groups. This section discusses the current funding arrangements, as well as the ways in which the equity aims of governments can be addressed using explicit CSOs. This section also describes subsidies paid to the sector through transfer payments to students.

Recurrent funding

Recurrent expenditure on VET by Commonwealth, State and Territory Governments totalled $4.7 billion in 2009, with almost three quarters provided by State and Territory Governments (SCRGSP 2011). Primary responsibility for VET funding lies with the states and territories, with the Commonwealth Government playing an increasingly important role, through National Agreements:

> State and Territory governments allocate funding for VET services and to support the maintenance of public training infrastructure. They oversee the delivery of publicly funded training and facilitate the development and training of the public VET workforce. State and Territory governments ensure the effective operation of the training market.

> The Australian Government provides funding contributions to states and territories to support their training systems and also provides specific incentives, interventions and assistance for national priority areas. (SCRGSP 2011, p. 5.7)

Since 2009, the bulk of government funding for VET has been distributed under the National Agreement for Skills and Workforce Development (NASWD), which embodies a new approach to Commonwealth-State financial arrangements:

> The new approach focuses on *what* should be achieved in the sector, rather than, as in the past, prescribe *how* services will be delivered. States will have the flexibility they need for resources to be allocated to areas where they will produce the best results. The new arrangements will provide the States with greater funding certainty and reduce administrative costs associated with previous, burdensome reporting requirements. (COAG 2008c, p. 2)

Further details of the NASWD are provided later in the chapter (box 4.3).

Forthcoming changes to university funding might also have implications for the VET sector. From 2012, all Australian public universities and the Batchelor Institute of Indigenous Tertiary Education will be funded for student places on the basis of student demand. The Australian Government will provide an additional $491 million between 2009-10 and 2012-13 to fund Commonwealth-supported places for all undergraduate domestic students accepted into an eligible, accredited higher education course. (There are transitional arrangements in place for 2010 and 2011.) Universities will not be funded for places that they do not fill (DEEWR 2009b). This will create the incentive for universities to compete to enrol the greatest number of students. A VET researcher has cautioned that universities might 'cannibalise' VET as a result, by enrolling students who would otherwise have enrolled in vocational Diplomas or Advanced Diplomas (Moodie 2011).

The Australian Government expects that this reform will result in an additional 50 000 students commencing university studies by 2013 and produce 217 000 additional graduates by 2025 (DEEWR 2009b).

The Australian Government's 2008 Bradley Review (section 4.3) noted that the move to a demand-based approach to funding universities has ramifications for the VET sector:

> Changing higher education funding but leaving VET funding untouched would compound existing distortions. Research shows that VET diploma and advanced diploma graduates are in direct competition with and are substitutes for higher education diploma and bachelor graduates in the labour market. (Australian Government 2008, p. 185)

The Bradley Review therefore recommended:

> That the Australian Government negotiate with the states and territories to introduce a tertiary entitlement funding model across higher education and vocational education and training (VET) commencing with the upper levels of VET (diplomas and advanced

diplomas) and progressing to the other levels as soon as practicable. (Australian Government 2008, p. 186)

A number of states are progressing VET policy reforms along these lines (guaranteeing a place and allocating based on demand) for their VET sector. The move to more market-based models of VET funding is discussed later in the chapter, with specific state policies discussed in appendix E.

Governments can also use funding to explicitly attempt to improve the quality of VET provision. For example, the Australian Government's *Quality Skills Incentive* program, beginning in 2011-12, will provide performance-based funding to the 100 largest RTOs (measured by enrolment numbers) in return for significant improvements against defined benchmarks in aspects of training delivery (DEEWR 2010c).

CSO payments

As noted earlier, where governments seek to address equity considerations through additional funding of VET institutions, a move to explicit CSO payments is desirable. This form of subsidy has the advantage of being transparent and distinct in a budgetary sense, allowing it to be scrutinised and reviewed. The use of formal CSO payments by government also has the potential to facilitate greater competition between public and private sector organisations, as the payments can be made to either in order to 'compensate' them for delivering on broader government objectives. If public providers were expected to meet these objectives without such compensation, they would be disadvantaged when competing for students. However, if such 'compensation' were provided in, for example, the form of adjustment to global budgets for providers, there would be the potential for it to be used inappropriately to cross-subsidise competitive operations.

Appropriate compensation for non-commercial delivery enhances competitive neutrality between the public and private sectors. Competitive neutrality has been raised as an issue in the Victorian system, where increased reporting responsibilities for TAFE providers have accompanied reforms to make the system more competitive (section 4.4, box 4.6).

New South Wales has arrangements in place that are similar to CSOs (box 4.2), Queensland is considering adopting the practice (DETA 2008) and South Australia has committed to identifying and implementing CSOs by 2011 (appendix E). However, from the evidence available to the Commission, the use of explicit CSO payments does not appear to be widespread in the VET sector.

Participants were broadly supportive of the Commission's finding that increased use of CSOs would improve transparency and provide for competitive neutrality in the market for VET. For example the WA Government supported the further use of CSOs, noting:

> Transparency around the considerable resources invested by State Training Providers and their staff in these areas would:
>
> - reinforce the value and importance that the community puts on the services
>
> - recognise the extra impost placed on State Training Providers
>
> - put a real cost on the services required to achieve the outcomes expected by the community. (sub. DR105, p. 2)

The WA Government also noted that a CSO could be particularly valuable in the Adult and Community Education sector, where 'programs do not generally define the range of elements beyond classroom hours that go towards achieving outcomes for students' (sub. DR105, p. 2).

TVET Australia noted that:

> [C]ommunity service obligation payments can serve as a practical mechanism through which providers can be subsidised to deliver training for disadvantaged groups and in areas that would otherwise not be commercially viable (e.g. regional/remote/low socio-economic areas). The extent to which this funding and training delivery is 'transparent' will be reliant upon the reporting mechanisms adopted and public availability of relevant performance/outcomes information. (sub. DR87, p. 4)

There was also support from both public and private providers. Polytechnic West stated that:

> [Polytechnic West (PWA)] is not compensated for pursuing non-commercial objectives; indeed PWA is disadvantaged by the restrictions, additional compliance and governance imposed upon us as a consequence of being a public VET provider. If government is to move government RTOs into operating in a competitive training market, then the public RTOs need the ability to 'compete' in the open market-place (without the restrictions that are not placed upon private providers). This needs to be balanced against a government RTO's community service obligations; which also attracts a cost — again, this is not a requirement of a private training provider. (sub. DR81, p. 4)

ACPET voiced the support of its members, noting:

> ACPET supports a transparent system which facilitates competitive neutrality across providers and supports all RTOs with the additional costs incurred in undertaking community service activities. (sub. DR98, p. 3)

However, some participants disagreed and/or expressed caution in expanding the use of CSOs. For example:

There is a danger in accepting … the so-called 'community service obligations' of TAFE [in relation to literacy and numeracy], because once decoupled from a broadly conceived vocational education, this aspect of TAFEs work is vulnerable to the unpredictability of government budgets, and difficult to argue for as a key aspect of the work of the sector. (AEU, sub. DR101, p. 4)

Unless the scale and scope of CSOs can be unambiguously defined on a theoretical and practical basis there is a danger that their application will be arbitrary. (Phillip Toner, sub. DR79, p. 12)

The Commission accepts that there are some practical difficulties in specifying, implementing and monitoring CSOs, but disagrees with the view that the multiple motivations of VET provision preclude the use of CSOs:

… there are multiple objectives imposed on the VET system, the output of which cannot be quantified or related directly to input use. The distinction between commercial and non-commercial VET activities, which forms the basis for classifying certain VET activities as subject to Community Service Obligations, has no basis in economic theory. (Phillip Toner, sub. DR79, p. 7)

A wealth of literature supports the use of CSOs and implementation guidelines are prevalent. For example, guidelines from the Queensland Treasury state:

… a CSO relates to the provision of non-commercial products or services, that is, products and services whose provision is not in the commercial interests of a commercial business entity.

That is, to qualify as CSOs, activities must be ones that would otherwise not be undertaken, or would be priced differently, by commercial entities (based on the entity earning normal commercial profit levels and the products or services being delivered on a cost-effective basis).

In some instances, the delivery of products and services may be commercially viable at levels below those desired by the Government. Therefore, such services will contain both commercial and non-commercial elements. Clearly, CSOs should only relate to the non-commercial element of the product or service. (1999, p. 4)

Accordingly, the Commission considers that practical implementation challenges do not diminish the soundness of CSOs. Aside from the aforementioned benefits of enhancing transparency and making explicit the value of the non-commercial services sought by Governments from their TAFEs, a CSO could deliver additional benefits arising from competition. CSO payments should be contestable by private providers, for example, through the use of a tender. The government could then choose between competing providers based on quality and price and, in so doing, secure cost-effective, equitable access to VET services.

RECOMMENDATION 4.1

Governments should make explicit on-budget Community Service Obligation payments, to be contestable by both public and private VET providers, to those providers undertaking non-commercial activities at the request and direction of the Governments.

Transfer payments

In addition to funding institutions to deliver to equity groups, governments use transfer payments to directly encourage students from these groups to undertake VET.

In Australia, government assistance to VET students includes (but is not limited to):

- Youth Allowance, to VET students and Australian Apprentices aged 16–24

- Austudy, to eligible students aged 25 years and over enrolled in full-time study

- Abstudy, to Indigenous Australians who undertake approved full-time and part-time study

- fares allowances, health care cards, pharmaceutical allowances, remote area allowances, rent assistance and small-scale interest free loans (up to $500)

- VET FEE-HELP, to eligible students undertaking certain VET courses with an approved VET provider. The assistance is in the form of an interest-free loan that covers all or part of the course fees.

In addition to recurrent assistance, governments also tend to make additional investments in training during downturns, as upskilling or reskilling are seen as critical to the employment opportunities of those out of work. Recent COAG initiatives such as the *Compact with Young Australians*, and the *Compact with Retrenched Workers* were designed, in part, to provide training to people disadvantaged by the impact of the global financial crisis (COAG 2009a, 2009b).

Information provision

Governments have taken various steps to improve the flow of information across the VET sector:

- The Australian Government manages the NTIS (National Training Information Service) and the *training.com.au* website, and has announced that it will establish and maintain a new website, *My Skills* (Gillard and Swan 2010), to

provide information to users of the VET system (including performance information about RTOs). Phase one of the website is due to be launched this year, with a second phase of the site launched in 2012. Chapter 10 has more details on *My Skills* and the Commission's views on the role it could play in overcoming information asymmetries in the VET sector.

- The National Centre for Vocational Education Research — a not-for-profit company owned by State, Territory and Commonwealth Ministers with responsibility for training — collects, manages, analyses, evaluates and communicates research and statistics about the publicly-funded VET sector (NCVER 2010a).

Assessment and planning

Perceived information deficiencies in the market for VET are also at the heart of government-led general workforce assessment and planning. Under these plans, the government intervenes in the VET sector to ensure that courses and places offered are consistent with government and national priorities. For example, although students are relatively free to act on their training preferences, governments seek to ensure that training provided is consistent with labour market and government policy needs. To this end, governments have traditionally set the number of funded places in different VET courses targeted at different occupations and industries, with clear implications for the make-up of the VET workforce.

Targeted VET funding by governments is based on an assessment of the skills needs of industry. A variety of groups (including employer representatives) play a part in the process. For example, Industry Skills Councils and Industry Training Advisory Bodies aim to improve the flow of information between industry, governments and VET providers, through such mechanisms as regular environment scans (more detail on the planning architecture surrounding VET in Australia is provided in appendix E). This advice helps governments set training priorities and make funding decisions.

Although skills forecasting should theoretically improve the information available on labour market needs now and in the future, it can be costly and there are a number of problems with it in practice. In particular:

- it is difficult to find out what employers really need. Employers are a diverse group with differing needs, over different time-frames, operating in different regional labour markets, and with a differing capacity to articulate their needs to policy makers

- employers and students might want different things. For example, students might want skills that are more transferable, rather than sector-specific. Employers also have an incentive to argue for more subsidised training in their sector, to keep wages low

- future demand for skills is subject to considerable uncertainty (chapter 7).

The role of government has changed somewhat in recent years, with a growing trend towards greater student choice and less government planning of supply. For example, the User Choice funding of apprenticeships now allows apprentices and their employers to choose (with some restrictions) the training institution and the form of training delivery.

The National Reform Agenda and its successors

In recent years, COAG has endorsed agreements which are objective-based, rather than prescriptive, with the methods to achieve COAG goals being left to the individual states and territories. In 2006 Australian governments agreed to a new national reform agenda (NRA) with a strong focus on improvements to human capital, including health, education and work incentives (COAG 2006). Building on the NRA, in March 2008, COAG 'agreed on a common framework for reform … in the key areas of early childhood, schooling and skills and workforce development' (COAG 2008a, p. 4). The framework drew on the policy directions being pursued in each jurisdiction and the 'Education Revolution' commitments of the Australian Government (PAWG 2008).

In November 2008, COAG endorsed a new *Intergovernmental Agreement on Federal Financial Relations* (IGA) (COAG 2009a). The IGA included six new National Agreements, ranging from healthcare to disability. It included the NASWD (box 4.3) and the *National Indigenous Reform Agreement* (NIRA).

The *National Partnership Agreement on Productivity Places Program* was agreed to in the context of the NASWD. The Productivity Places Program is part of the Australian Government's *Skilling Australia for the Future* initiative and aims to reduce skill shortages and increase productivity. The program seeks to deliver 711 000 training places over five years in areas of skill shortages.

The NASWD outlines the objectives, outcomes, outputs and performance indicators for each sector, and clarifies the respective roles and responsibilities of the Commonwealth and States and Territories in the delivery of services. The performance of governments will be assessed by the COAG Reform Council against the measures in the agreement.

The NASWD's objectives are:

- All working age Australians have the opportunity to develop the skills and qualifications needed, including through a responsive training system, to enable them to be effective participants in, and contributors to, the modern labour market.

- Individuals are assisted to overcome barriers to education, training and employment, and are motivated to acquire and utilise new skills.

- Australian industry and businesses develop, harness and utilise the skills and abilities of the workforce (NASWD paragraphs. 13–15).

The NASWD has a particular focus on the following outcomes:

- Reducing gaps in foundation skill levels to enable effective educational, labour market and social participation.

- The working age population has the depth and breadth of skills and capabilities required for the 21st century labour market.

- The supply of skills provided by the national training system responds to meet changing labour market demand.

- Skills are used effectively to increase labour market efficiency, productivity, innovation, and ensure increased utilisation of human capital (NASWD paragraphs. 16–19).

The NASWD includes two targets:

- Halve the proportion of Australians aged 20–64 without qualifications at Australian Qualifications Framework Certificate III level and above between 2009 and 2020

- Double the number of higher qualification completions (Diploma and Advanced Diploma) between 2009 and 2020 (NASWD p. 6]).

Sources: (COAG 2008b); (SCRGSP 2009a).

The National Partnership Agreement commenced on 1 January 2009 and is due to run until 30 June 2012. The Australian Government delivered training places under the program until 30 June 2009, at which time State and Territory Governments assumed responsibility for delivery of most training places. Under the agreement, the Australian Government will fund 100 per cent of the cost of job seeker places, with existing worker places being jointly funded by the Australian Government

(50 per cent), States and Territories (40 per cent) and enterprises or individuals (10 per cent) (COAG 2008e).

The NASWD seeks to improve education outcomes for Indigenous Australians and people with disability and sets goals for increasing participation in VET. The NIRA similarly highlights the importance of education in improving outcomes for Indigenous Australians, and includes as performance indicators:

- the proportion of Indigenous 18–24 year olds engaged in full-time employment, education or training at or above Certificate III

- the proportion of Indigenous 20–64 year olds with, or working towards, a post-school qualification at Certificate III, IV, Diploma or Advanced Diploma levels (COAG 2008d).

Governments are now progressing with a range of policy initiatives consistent with the framework in the COAG National Agreements. Discussion of the approaches taken by each of the States and Territories is contained in appendix E.

Regulation of the VET sector

Governments have established a range of VET regulators and regulations which potentially affect the size and nature of the VET workforce, particularly where regulation relates to the qualifications required to work in the sector. Although regulation of the VET sector such as that discussed below is sometimes warranted on the grounds that it corrects market failure, all regulation carries a cost that needs to be balanced against claimed benefits.

Much of the regulation of the sector addresses quality issues. In seeking to ensure a minimum quality of VET provision, the government seeks to prevent students mistakenly enrolling in low-quality courses or providers. In this way, some of the consequences of information asymmetry are avoided. Ensuring quality also reduces the search costs (generally, the time and effort taken to search for a suitable provider or course) of potential students or firms looking to purchase VET. Forms of VET regulation seeking to ensure quality of VET products include the Australian Qualifications Framework and the Australian Quality Training Framework (AQTF) (chapter 2), with current VET regulatory bodies including the National Quality Council and the state and territory regulators. Regulation of the sector is overseen by the Ministerial Council for Tertiary Education and Employment (MCTEE) (appendix E).

In order to become an RTO (and be able to access government funding and deliver nationally recognised courses and qualifications), training providers must meet

AQTF conditions and standards. A credible regulatory regime can potentially provide students with some assurance about the quality of providers, courses and staff, cost, the financial security of providers, and/or some certainty about the range of recourses available in case of default.

Industry and students typically want consistent national training, so that it is easier to recruit and move across state boundaries. This requires either a single national framework, harmonisation or, at a minimum, mutual recognition. A nationally consistent system also facilitates the movement of VET sector workers.

Agreed formation of a Standards Council and national VET regulator

COAG agreed at its December 2009 meeting to establish a national regulator for the VET sector, to be operational from July 2011. (On 14 April 2011, the *National Vocational Education and Training Regulator Act 2011* (Cwlth) was registered). Victoria and Western Australia will continue to regulate their VET providers at a state level, although they have agreed to enact legislation to mirror the Commonwealth legislation.

The COAG decision followed concerns about the existing regulatory arrangements, particularly with regard to quality assurance, monitoring and enforcement (especially in the international student sector) (box 4.4), and about compliance costs for RTOs operating in more than one jurisdiction:

- The Bradley Review had recommended greater alignment between the VET and higher education sectors, including a single national regulatory and quality assurance agency and a single Ministerial Council (Australian Government 2008).

- Skills Australia had recommended the establishment of a national regulatory body for the VET sector, to potentially be merged with an equivalent body regulating higher education to form a single national regulator for both sectors (Skills Australia 2009).

It is widely anticipated that there will be a single national regulator for the VET and higher education sectors from 2013 (TVET Australia 2010; AEU, sub. 34).

| Box 4.4 | **Problems with the international student sector** |

In recent years, there has been very significant growth in the number of international students studying in Australia. In 2009, there were 491 000 students from more than 190 countries studying in Australia (COAG 2010a). Much of this growth has occurred in the VET sector (appendix B). As the number of international students has grown, there have been increasing concerns about the quality of courses offered, the support provided to students and, in some cases, about the safety of the students.

In response to these concerns, COAG has adopted an *International Students Strategy for Australia* (COAG 2010a). A number of measures have been implemented to support the strategy, including the setting up of information portals, engagement strategies between international students and the broader community, student support mechanisms in the event that training providers close, and access to complaints bodies.

The measures announced by COAG also follow the findings of the 2010 Baird Review of the *Education Services for Overseas Students (ESOS) Act 2000* (Cwlth). These findings had a strong focus on improving regulatory and consumer protection arrangements, and were seen by COAG to complement the outcomes of the *International Students Strategy for Australia*.

The Commonwealth and State and Territory Governments have also implemented a program auditing the quality and financial viability of international education providers, and have required that all providers re-register under tighter regulatory criteria in 2010. In addition, work has been undertaken with overseas governments to improve the regulation of education agents operating in their country.

Finally, migration policy arrangements have also been strengthened to encourage international students to focus on obtaining education services from quality providers, and to ensure that student visa applicants have the necessary funds to live in Australia (COAG 2010a). In parallel, the conditions for obtaining student visas have been tightened, to deter their use as substitute working visas.

COAG has agreed to establish a National Standards Council (NSC) to provide advice to the MCTEE on national standards for regulation, including registration, quality assurance, performance monitoring, reporting, risk, audit, review and renewal of providers, and accreditation of VET qualifications (COAG 2009c). It will assume the functions of the NQC as part of a broader standard-setting remit. More information on the Standards Council and the national VET regulator can be found in appendix E.

Amendments to the Australian Quality Training Framework

COAG agreed, in 2009, to amend the AQTF to strengthen the regulatory requirements underpinning the VET sector in general, and the registration of RTOs in particular. The agreed amendments introduce conditions and standards for the initial registration of new providers, and strengthen the requirements for ongoing registration. The amendments follow the emergence of problems in the international education sector, and seek to provide international students studying in Australia with greater consumer protection.

4.4 The increasing role of market forces in the VET sector

One of the major changes to have occurred recently in the VET sector is the move towards the market-based allocation of VET funding. In particular, the governments of Victoria, Western Australia and South Australia have introduced greater contestability and competition for public VET funding. More broadly, the Commonwealth and State and Territory Governments have undertaken a number of reforms of VET in recent years, which have been designed to make the VET sector more efficient and competitive.

Given the significance in the sector of the publicly-owned TAFE institutions, however, there has often been a tension between promoting competition and maintaining the viability of TAFE. Some jurisdictions appear to have placed a higher priority on the former, and others on the latter.

The trend towards a mixed-market in VET

As noted in chapter 2, following the publication of the Deveson Review in 1990 and the Hilmer Report in 1993, it was agreed that a proportion of recurrent funding would be allocated on a competitive basis with private providers able to compete for funds (Knight and Mlotkowski 2009). Subsequently, from 1998, public funding for apprenticeships and traineeships was made subject to 'user choice' principles (Goozee 2001). The reforms since the 1990s have resulted in an increased proportion of publicly-funded activity being delivered by non-TAFE providers. Private providers were responsible for about 9.5 per cent of publicly funded student enrolments in 2000, and about 13.5 per cent of enrolments in 2009 (table B.4).

In 2008, 21.3 per cent (or $880.5 million) of recurrent government expenditure was allocated on a competitive basis (SCRGSP 2010).

Processes used to allocate public funds on a competitive basis include:

- competitive tendering, whereby government and private RTOs compete for funding contracts in response to government offers (tenders)

- User Choice, whereby an employer or trainee chooses an RTO to deliver their training, and then government funds are awarded to that provider

- preferred supplier arrangements, whereby a contract is awarded to providers (chosen by the tender process) to provide training on a longer-term basis.

The degree of competition in the tendering process varies across and within jurisdictions, depending on the program. Some tenders can be contested by any RTO (open competitive tendering), while some other tenders are restricted to particular RTOs (limited competitive tendering). Similarly, the scope for competition, in terms of the size of the market of potential providers, varies across jurisdictions (SCRGSP 2010).

Public and private RTOs also compete in the full-fee paying student market, for both domestic and international students.

The continued substantial presence of public institutions largely reflects a view that government-owned institutions can directly address market failures and equity issues. Equally, the recent moves towards competitive tendering, private-public competition and User Choice reflect a desire for increased choice and efficiency in the provision of VET via competitive forces. The trend towards greater competition and private provision has had implications for the workforce, which has had to adjust to this new, more competitive environment. There are also now more employers in the sector.

Many firms have turned to private sector providers for their training needs (and many prefer to provide their own training in-house, rather than purchase it externally). Of firms providing in-house training, some have registered to become enterprise RTOs and, therefore, potentially receive government funding. However, others do not, and their training, therefore, remains non-accredited, though no less useful to them or their employees. (As training becomes more firm-specific, the arguments for public funding diminish, because the potential for spillover benefits is reduced).

Recent pro-competitive reforms and the move towards 'user pays'

Changes to Victoria's VET system, being phased in between 2009 and 2012, are aimed at enabling Victorians to access government-funded training from a wider range of providers, and ensuring that training delivery is more demand responsive

and competitive. Similar reforms are proposed in South Australia, and Western Australia is also foreshadowing a significant increase in its use of User Choice allocations.

There has also been a trend in some jurisdictions towards increasing the proportion of TAFE expenditure met by students and enterprises via tuition fees (box 4.5). The principle of 'user pays' was given prominence originally in the Deveson Report of 1990. This report argued that the TAFE sector's model of resource allocation was inefficient due to the absence of any price mechanism to signal the actual value of training. In an effort to increase efficiency, quality, responsiveness to client needs and private investment in training, the Deveson Report suggested some deregulation of fees in TAFE. A well designed funding system, providing for some degree of fee deregulation, was seen by some as empowering institutions to set prices with regard to costs and student demand (Karmel 2000). This is the idea that underpins recent policy changes in several jurisdictions.

In these jurisdictions, the contribution made by individuals and businesses via tuition fees now varies more in line with the expected mix of public and private benefits associated with the training. For example, Victoria's fees increase with the level of qualification, reflecting higher benefits accruing to individuals at progressively higher qualification levels. South Australia has also proposed a similar change to its fee structure (DFEEST 2011).

One aspect of the manner in which 'user pays' principles have been applied under the Victorian policy also highlights growing policy emphasis on upskilling. In that state, government-subsidised places for people aged 20 and over are restricted to training at the foundation skills level and to qualifications at levels higher than those already held by individuals (with recently extended exceptions for critical skill shortages or significantly disadvantaged workers). This focus on upskilling is consistent with trends in other jurisdictions and with the focus of the Australian Government's Productivity Places Program.

Box 4.5	**Student co-payments are the 'norm' in TAFE**

TAFE students generally pay fees at enrolment unless they are subsidised or exempt under government programs. Students in most government-subsidised places still pay fees, the amount of which varies between jurisdictions (with each State or Territory Government setting their own fees).

Fees tend to be calculated on an hourly basis, and in most states there is a maximum fee chargeable in any one year. For example, in Victoria a student studying a non-apprenticeship Certificate III will pay $1.84 per hour, with a minimum annual charge of $187.50 and a maximum of $1250. In addition to course fees, government funded VET students are also liable for other fees. Most institutions charge an amenities or general services fee. Some states charge a resources fee and/or an enrolment fee, and some courses have materials fees.

There is a trend towards greater student contributions for TAFE courses, particularly for those courses considered to provide greater private benefits for students. In most cases, TAFE students bear little of the costs of their education. For example, student fees for subsidised training currently account for about 5 per cent of revenues in South Australia's TAFE system (DFEEST 2011). This contrasts with the higher education sector where the fees payable by students can be set at up to 25 per cent higher than the government subsidy (Australian Government 2008).

Victoria and South Australia are moving to a system where students will pay for more of costs of their education. For example, under Victoria's new fee structures, the student contribution is expected to cover about 13 per cent of the average cost of a Certificate-level qualification and about 25 per cent of Diploma or Advanced Diploma (DIIRD 2008). The new system of fees proposed in South Australia follows a similar pattern with higher level qualifications attracting more of a co-contribution from students (DFEEST 2011).

Along with higher fees, there has been an increase in the TAFE sector's fee-for-service activity. Restrictions on places funded by the government and the high cost of qualified teachers, facilities, equipment or materials in some areas, have led several institutes to offer fee-for-service or full fee-paying programs (Chapman et al. 2007). These programs have, over time, provided larger proportions of income for the publicly-funded VET system in Australia (NCVER 2010c). Many of these courses are linked to high-growth, high-input costs sectors of the economy (Chapman et al. 2007).

As governments seek to increase the proportion of people with VET qualifications, while also facing significant fiscal constraints, the use of user pays arrangements is likely to increase, although the number of concessions and reduced fees payable for equity and access reasons means the revenue implications might not be dramatic.

Under the new arrangements in Victoria, government-subsidised training is allocated in response to student demand rather than through purchasing plans. Previously, selected providers were allocated a quota of funds for the delivery of training (DIIRD 2008). Eligible students can now elect to study at a provider of their choice, as long as that provider is contracted with Skills Victoria and is able to offer the qualification sought (DIIRD 2010). There is some evidence that this model has resulted in higher compliance and reporting costs for the VET sector (box 4.4), but the reforms do appear to be strengthening the market for VET services. A recent review of the reforms by Ernst and Young found that:

> As a result of the reforms, the market for VET services in Victoria is demonstrating greater competition. Student enrolment patterns appear to be changing, with private providers and some TAFEs experiencing strong enrolment growth. Additionally, there has been rapid growth in the number of providers contracted with Skills Victoria to deliver government funded training. Prospective Victorian students now have more options when selecting a VET provider. (DIIRD 2010, p. 5)

Under the proposed South Australian reforms, a system of providing funding linked to the clients' (individual students and employers) choice will be introduced. Supply of training would become demand-driven and the public training subsidy would eventually be fully contestable. There would be some capping of subsidised places in areas of high demand (DFEEST 2010).

Under its *Training WA* blueprint for investment in training between 2009 and 2018, the WA Government also seeks to achieve a more flexible and innovative training system, with more training to be delivered in the workplace, at more flexible times in the classroom, online and away from the classroom where appropriate. The use of User Choice purchasing arrangements in Western Australia will be further expanded by removing restrictions on areas open to competition, seeking to increase the proportion of training delivery allocated through competitive processes from 27 per cent to 50 per cent between 2008 and 2012.

The workforce ramifications of the shifts towards user pays and user choice are discussed in chapter 6.

There is further discussion of current state and territory policies affecting the VET sector in appendix E.

Governance issues

In many jurisdictions the recent shift towards greater contestability and competition in the VET sector has been accompanied by a move to provide public VET providers with greater independence from government. This is to enable them to

better respond to local level, market conditions. Although this move is designed to help the publicly-owned institutions compete, there is some evidence that publicly-owned providers have been disadvantaged by the market-based reforms recently instituted in Victoria (box 4.6). At issue is the added burden placed on TAFE providers arising from a lack of independence from their government owners.

Across Australia, TAFE providers have varying degrees of independence depending on their structure, and on the legislation under which they operate. Traditionally these providers have been set up under departmental control, where they meet objectives set down by government and have relatively little independence. In more recent years, there has been a move towards reconstituting TAFEs as independent statutory authorities.

Victoria, Queensland and Western Australia have all adopted statutory authority governance arrangements for their TAFE institutes. The Queensland Department of Education, Training and the Arts has described the motivation for this shift:

> Statutory TAFE institutes are enabled with the autonomy and business acuity to meet customer needs, target new markets, and create a financially sustainable organisation delivering the opportunity for surpluses to be reinvested at the institute level in staff and training facilities. (DETA 2008, p. 1)

South Australia has also recently undertaken to set up TAFE SA as an independent statutory authority, with each of its institutions as a subsidiary. The new governance arrangements are designed to allow the 'institutes to participate and compete more effectively in a market environment', while ensuring 'the Government's interests and risks are appropriately managed' (DFEEST 2011).

The appropriate level of independence for a government entity will depend on many factors, not least on the balance of commercial and non-commercial objectives that the entity must meet. Given that governments wish to retain ownership and control of TAFE institutes, and impose a number of non-commercial objectives on them, a 'corporate' model, where they are turned into companies and made subject to Corporations Law, is unlikely to be appropriate. In its Draft Report, the Commission found that the most appropriate governance arrangement in the new more competitive environment is therefore likely to align with the statutory authority model and fall between the departmental model and the full corporate model. It also found advantages to moving toward greater managerial independence for TAFE providers.

| Box 4.6 | **Issues of competitive neutrality in the Victorian system** |

Submissions to the Victorian Competition and Efficiency Commission (VCEC) inquiry into Victoria's regulatory framework reveal concerns about the recent Skills Victoria regulations undertaken as part of *Securing Jobs for Your Future — Skills for Victoria*. The Victorian TAFE Association (VTA) noted that when this regulation is considered in the context of overlapping governing instruments and pre-existing regulatory environments, the added burden is onerous (VTA 2010).

At issue is the ability of TAFE institutions to compete in a market for VET services when they face additional compliance costs. VTA note:

> TAFE providers are under constant pressure to be responsive to the mounting expectations of government which are often accompanied by new directives, reporting and regulatory activities. For example the Government desire to demonstrate its environmental credentials has led to all public sector organisations being progressively required to implement and report on sustainable practices across their operations. (VTA 2010, p.11)

Unlike other providers, publicly-owned providers are constrained by the need to comply with government prescribed requirements including industrial relations policies and wage frameworks, executive remuneration, investment guidelines, and marketing guidelines.

In a submission to the same VCEC review, the North Melbourne Institute of TAFE (NMIT) note that the extension of FEE-HELP to TAFE has resulted in extra regulatory burdens (NMIT 2010). Institutes such as NMIT are obliged to offer VET FEE-HELP for Diploma and Advanced Diploma courses. The related Commonwealth and State requirements include complex fee schedules and advertising timetables which limit flexibility in course offerings.

Despite the extra compliance requirements on public VET (many of which are designed to ensure quality), NMIT noted that in 2009 it participated in 77 external audits. A submission to this study (VTA and TDA, sub. DR94) has argued that a fairer system of audits would take in to consideration the additional quality control measures placed on publicly-owned providers. This 'risked-based auditing' would audit more frequently, and intensely, those RTOs that pose the greatest risk to quality.

VCEC has itself published draft recommendations that suggest Victoria streamline regulatory arrangements, to remove reporting and auditing overlaps and to improve information dissemination. VCEC also suggests that Victoria work with the Commonwealth to ensure that VET FEE-HELP is administered in a form that is appropriate to VET (VCEC 2011).

There was some broad support for this position from participants (NVEAC, sub. DR75; TVET Australia, sub. DR87) and little disagreement expressed in submissions. Some participants were more concerned about the importance of retaining government ownership, than with enhancing managerial independence. For example, the Community and Public Sector Union, and State Public Services Federation stated:

We support the view that the 'adoption of a full corporate model for public sector RTOs' would not be appropriate. The over-emphasis on commercial and competitive strategies of public sector RTOs already risks compromising their capacity to achieve broader social objectives and community service obligations. (sub. DR106, p. 7)

Similarly, John Mitchell and Associates, and JMA Analytics supported the view of the Commission, noting:

The Productivity Commission has at last brought some commonsense to this topic by pointing out that state governments won't want to lose all control of TAFE institutes and as governments they will always have non-commercial objectives they will want institutes to pursue. (sub. DR102, p. 13)

The Victorian TAFE Association and TAFE Directors Australia commented that the move to more managerial independence will need to be cognisant of jurisdictional differences. They noted:

VTA and TDA agree in principle that moves toward greater managerial independence may enable public sector VET providers to respond to the more competitive funding environment, but this needs to be considered in the context of what is possible in each jurisdiction. (sub. DR94, p. 5)

It also noted the difficulties in ensuring competitive neutrality in a system where governments retain some control over TAFE providers:

The Victorian experience of operating in a fully contestable market provides a demonstration of the conundrum by which governments want to create a competitive VET environment, whilst also wanting to retain both ownership and control of the public component of the VET sector. The operating environment for Victorian TAFE providers has changed within what appear to be contradictory policy settings and TAFE providers are of the view they are competing with their hands tied behind their back. (sub. DR94, p. 5)

Overall, feedback from participants confirms the Commission's view that flexibility and autonomy are increasingly vital for public providers. Feedback also confirms that the multiple objectives assigned to those providers create risks for the goal of achieving competitive neutrality.

FINDING 4.1

A move towards greater managerial independence for TAFE Institutes is likely to better enable them to respond to the more competitive environment they now typically face. The adoption of a statutory authority governance model for public-sector Registered Training Organisations is appropriate, given the desire for governments to retain both ownership and control, while promoting flexibility and competitive neutrality at the individual provider level.

5 What do students and employers expect from VET?

Key points

- For most VET students, an employment-related outcome is the main motivation for undertaking training. Other motivations include personal development and further study.
  - Student satisfaction with the overall quality of their training in the publicly-funded VET sector is high, reflecting largely successful employment outcomes.

- Student motivations are different for disadvantaged groups, with significant proportions undertaking VET for educational and personal development reasons. Nonetheless, VET is also important to them as a means of getting a job, due to their low pre-training employment rates.
  - Outcomes, such as completion rates, for students from disadvantaged groups, are slightly lower than for other students. These students are overrepresented at lower qualification levels, particularly Indigenous students.

- The affordability and accessibility of VET study are especially important to VET students from disadvantaged groups.

- Employers expect the VET sector to deliver competent and work-ready employees, as well as contribute to generic skills in communication, organisation and technology, and to foundation skills.

- About 55 per cent of employers use the VET system, and satisfaction among these employers is high. However, satisfaction is higher among employers that use unaccredited training. Notwithstanding this, problems remain in meeting some of the needs of employers and the community.
  - In sector-specific inquiries conducted by the Commission, a number of employers have expressed dissatisfaction with the performance of some Registered Training Organisations. Some have also been critical of the content of courses.

- Employers' satisfaction with the VET workforce, specifically, is unclear. The National Centre for Vocational Education Research should expand and refine its *Employers' Use and Views of the VET System* survey to clarify employers' satisfaction with the VET workforce.

This chapter discusses expectations of the Vocational Education and Training (VET) sector and to an extent, therefore, of the VET workforce held by students and employers, ways in which these key stakeholders attempt to influence the sector, and the extent to which their expectations are met. The expectations and experiences of students and employers are considered in sections 5.1 and 5.2, respectively.

5.1   Student expectations and experiences of VET

What do students expect from VET?

Based on evidence from the Student Outcomes Survey (SOS), an annual survey run by the National Centre for Vocational Education Research (NCVER), students engage in VET for reasons several reasons, including to:

- improve their labour market outcomes or prospects
- obtain other personal benefits
- gain pathways to further study
- enhance skills to bring to volunteer roles.

Because of its vocational nature, the majority of VET students anticipate improved labour market outcomes from their study. In 2009, 80 per cent of VET graduates and 71 per cent of module completers cited an employment-related outcome as their main reason for undertaking training (NCVER 2009e).

Education and training can have personal development benefits both during and after study. In 2009, 16 per cent of VET graduates and 27 per cent of module completers reported a 'personal development outcome' as their main motivation for study (NCVER 2009e).

For some, further study is a motivation for undertaking VET. In 2009, 4 per cent of VET graduates and 2 per cent of module completers nominated this as their main motivation for undertaking VET (NCVER 2009e). VET provides a pathway to university. The proportion of students admitted to university on the basis of Technical and Further Education (TAFE) study was 9 per cent in 2002 and 10 per cent in 2006, and the proportion of university students gaining credit for prior TAFE study increased marginally from 2.6 per cent in 2002 to 3.4 per cent in 2006 (DEEWR 2010c). Pathways between private VET providers and universities are not well captured in any dataset. So-called 'reverse articulation' — students who

have previously studied in the university sector studying in the VET sector — also occurs.

A further 1.5 per cent of graduates and 3.2 per cent of module completers cited their main reason for training as 'to get skills for community/voluntary work' (Productivity Commission estimates based on NCVER 2009e).

Along with the likely outcomes from engaging in VET, students will consider other factors, such as the affordability and accessibility of VET courses before enrolling in the VET sector. Affordability is likely to be of particular concern for those who are financially disadvantaged. In 2009, 2.9 million Australians aged 15–64 years wanted to participate in formal learning leading to a recognised qualification, including VET, but did not. Twenty per cent of this group attributed their lack of participation to financial reasons (ABS 2010c, p. 47).

Accessibility of courses is increasingly important to VET students. Most VET students work, many full time. At a minimum, students expect to be able to enrol in courses (provided that they meet entrance requirements) that are offered within reasonable distance of their home address, or through adequate distance learning arrangements. Options for when, where and how they learn are key to VET's accessibility. In 2009, for example, 42 per cent of VET students reported that e-learning was a factor in their choice of training provider and 47 per cent said that it influenced their course of study (Australian Flexible Learning Framework 2009).

Recognition of prior learning (RPL) and recognition of current competency (RCC) can make VET more accessible to students, as they do not need to invest time in studying topics in which they already have competency. RPL is the acknowledgement of a student's skills and knowledge acquired through previous training, work or life experience, and can be used to obtain status or credit in subjects or modules, or even full VET qualifications. RCC applies if a student has successfully completed the requirements for a unit of competency or a module in the past and requires reassessment to ensure that his or her competence has been maintained.

Students' perceptions of the quality of their VET experience are shaped by a range of in-study factors, including the knowledge and skills of their teachers, their relationships with teachers, other staff and other students, and the tools and equipment used in their training.

Students' expectations about the quality of teachers and training facilities appear to be rising in line with the spread of information and communication technologies. The Australian Education Union (AEU) noted 'the growing expectations shared by industry, students and TAFE institutions of the need for more sophisticated and

flexible forms of delivery for vocational learning' (sub. 34, p. 6). The Joint TAFE Associations noted that 'some current challenges facing TAFE include the need to respond to … increased client expectations' (sub. 48, p. 9).

Expectations of learners who might experience disadvantage

As discussed in chapter 2, many VET students experience disadvantage due to factors including: gaps in their language, literacy and numeracy skills; a non-English speaking background; being Aboriginal or Torres Strait Islander; disability; or living in a remote or very remote area.

Students with one or more of these characteristics might have additional expectations of, or needs from, the VET sector. Beyond having the usual employment, personal development and further study expectations for studying VET, it is reasonable to assume that these students also expect the VET sector and its workforce to provide them with adequate language, literacy and numeracy (LLN) support, should they need it.

Table 5.1 shows variation in motivation for undertaking VET across different disadvantaged groups.

Table 5.1   Main reason for undertaking training, by disadvantaged group, per cent, 2009

	Highest prior level of education less than Year 12[a]	Speak a language other than English at home	Indigenous[b]	Disability	Remote area[c]	All students
Employment-related	**72.9**	**66.5**	**66.4**	**57.6**	**72.0**	**70.5**
To get a job	15.0	21.3	21.8	18.7	10.7	15.1
It was a requirement of my job	26.6	14.6	16.2	12.8	28.3	21.2
I wanted extra skills for my job	15.2	12.6	14.4	11.1	20.5	17.3
Other[d]	16.1	18.0	14.0	15.0	12.4	16.9
Education-related	**11.9**	**18.4**	**15.1**	**19.2**	**12.0**	**15.3**
To get into another course of study	2.0	5.9	2.5	3.8	1.2	3.3
To improve my general education skills	9.9	12.5	12.6	15.4	10.8	12.0
Personal or other reason[e]	**7.8**	**7.1**	**9.5**	**12.9**	**8.6**	**7.0**
Not stated	**7.4**	**8.0**	**9.0**	**10.3**	**7.5**	**7.1**
Total	100.0	100.0	100.0	100.0	100.0	100.0

a Highest prior level of education less than Year 12 for those aged 20 years and over. **b** Includes Aboriginal and Torres Strait Islander peoples. **c** Includes students whose home address was in a remote or very remote area on enrolment, based on ARIA (Accessibility/Remoteness Index for Australia). **d** 'Other' includes 'to develop my existing business', 'to start my own business', 'to try for a different career' and 'to get a better job or promotion'. **e** 'Personal or other reason' includes 'to get skills for community/voluntary work', 'to increase my confidence/self-esteem' and 'other reasons'.

Source: Table D.13 and Productivity Commission estimates based on unpublished data from NCVER 2009e.

Data are not available specifically for VET students with low language, literacy and numeracy skills. However, lower levels of these skills are associated with lower levels of school attainment (Shomos 2010). For this reason, students aged 20 and above, who entered VET with less than Year 12 schooling, have been used as a proxy for those with LLN skills. Data on the main motivation for study for these students revealed that they were more likely than their peers to be studying because it was a requirement of their job, and less likely to have a further study motivation (table 5.1).

Students from non-English speaking backgrounds might need, as well as expect, extra support in learning English or in improving their English language skills. These students might also expect the VET sector to be culturally sensitive. The most common reason for students who speak a language other than English at home to undertake VET was to get a job (table 5.1).

In a possible reflection of the relatively lower employment rates among Indigenous Australians, Indigenous students are relatively more likely to undertake a VET course in order to get a job. Lower employment rates among Indigenous Australians are also reflected in a lower propensity to undertake VET because 'it was a requirement of [their] job' (table 5.1).

Indigenous students expect the VET sector and its workforce to provide a supportive learning environment, free of direct and indirect discrimination. Indigenous students stand to benefit most from the VET sector when it is able to provide a culturally supportive learning environment. Flexible delivery can be a particularly important part of such as environment (Anderson 2009). Indigenous students might also prefer to learn from an Indigenous VET practitioner, from a provider that has Indigenous staff, or in the company of other Indigenous students.

A number of Registered Training Organisations (RTOs) specialise in providing education and training to disadvantaged groups, such as Indigenous Australians. For example, the Batchelor Institute of Tertiary Education in the Northern Territory provides tertiary education, including VET, to Indigenous people. In 2008, 30 per cent of the staff at the Batchelor Institute were Indigenous (Batchelor Institute 2009, p. 19).

Like Indigenous students, students with disability are less likely to be in employment than the general population. They were slightly less likely than other students to undertake VET to improve their position in the labour market, and slightly more likely to undertake VET for an education-related outcome or for personal or other reasons — particularly with the aim of increasing their confidence. (table 5.1 and table D.13). Students with disability expect that the VET sector will provide a supportive learning environment, free of direct or indirect discrimination, allowing them to be as independent as possible. Students with disability might also expect providers to be aware of, and offer, technologies that facilitate independence:

> … VET teachers/trainers and support workers [need] to be acquainted with the technologies that are available that make access and participation easier for learners with disability. A good understanding of the technology available can assist learners [to] become less dependent on for example note takers and support workers … (National VET Equity Advisory Council, sub. 58, pp. 4–5)

Almost 50 per cent of VET students from a remote or very remote part of Australia reported an in-employment motivation for study (table 5.1), in contrast with 35 per cent of students from a major city. These data reflect that 77 per cent of students from remote and very remote areas were in employment, prior to commencing VET study, in contrast with 69 per cent of students from major cities

(Productivity Commission estimates based on unpublished data from NCVER 2009e).

Chapter 6 notes that learners who might experience disadvantage will likely comprise a greater proportion of VET students in the future and discusses the implications of this trend for the VET sector and its workforce. Chapter 9 discusses capability gaps in the VET workforce in relation to delivering training to these learners.

Expectations of international students

International students, like other students, expect the VET sector to provide high-quality education and training. Unlike other students, international students are ineligible for subsidised fees and government student allowances, and usually incur significant costs in undertaking their study.

State and Territory Governments recently introduced a set of measures aimed at improving quality assurance in this segment of the VET market (chapter 4).

Although not a part of VET policy, Australian immigration policy is critical for international students. They need confidence that they will be allowed to complete a course of study once lawfully enrolled. Immigration policy can also affect their post-study outcomes. Access to permanent residency in Australia after completion can be a key motivation for choosing to study in Australia and a particular course. Recent adjustments to immigration policy, as it affects international student visas, have shown how susceptible this group of stakeholders is to regulatory changes.

How do students seek to influence the VET sector?

Individual students influence the VET sector through their decisions to enrol — especially given greater levels of demand-driven funding — and withdraw from courses. Moreover, they can provide feedback directly to VET practitioners or providers, through course evaluations and satisfaction surveys. The Australian Quality Training Framework (AQTF) requires all RTOs to maintain and publicise processes for receiving and responding to students' complaints. State and Territory registering bodies have additional measures in place to investigate and respond to complaints where users are not satisfied with the response from an RTO. For example, in New South Wales, the NSW Vocational Education & Training Accreditation Board runs a complaints procedure for Australian users of the NSW VET system. Complaints by overseas students in New South Wales, and in other states, are handled by the Department of Education, Employment and Workplace

Relations (DEEWR). A full list of State and Territory registering bodies is contained in appendix E.

The five dual-sector universities in Australia have student unions, which provide opportunities for their VET students to influence the sector. In contrast, equivalent bodies do not exist in standalone TAFEs or in private providers. However, many TAFEs have student associations, such as the South West Institute of TAFE Student Association, which is an independent body governed by the Student Representative Council of that institute.

There are a number of national representative bodies for international students, including the All International Student Association, which reports having over 2000 members.

Are student expectations being met?

The SOS is a key resource in measuring whether student expectations are being met. The SOS includes students who are awarded a qualification (graduates) and those who successfully complete part of a course and then leave the VET sector ('module completers'[1]). These data cover students in the publicly-funded VET sector.

The SOS contains measures of student outcomes and student satisfaction. Evidence suggest that these measures are good indicators of students' experiences. Curtis (forthcoming) reviews the quality of NCVER subject completion and student satisfaction measures (from the SOS) and finds that these measures appear to be valid and reliable. Similarly, Morgan and Bontempo (nd) previously found that the measures contained in the 2003 SOS were valid and reliable. The current SOS includes questions that reflect the core characteristics of good teachers that Brain (1998) identified, such as deep subject knowledge, strong communication skills and the ability to make a subject interesting. Hattie (2009) has found that students' rating of the quality of teaching is related to student outcomes. Hattie noted that 'the use of student rating has been hotly contested, although the majority of studies show that they are reliable, trustworthy, and valid' (Hattie 2009, p. 116). Further discussion of indicators of performance in the VET sector is in appendix D.

Overall, student outcomes and satisfaction with the quality of their training in the publicly-funded VET sector are high. In 2009:

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[1] 'Module completers' include students who enrol in: full qualifications and do not complete; subjects; or Statements of Attainment.

- over 90 per cent of VET students completed, or were continuing, their studies. This figure included:
    - 67 per cent of students who were assessed and passed
    - 7 per cent of students who were assessed and failed
    - 5 per cent who were granted RPL
    - 8 per cent who were continuing their studies
    - 5 per cent who achieved another subject result (table D.2).
- 86 per cent of graduates and 82 per cent of module completers fully or partly achieved their main reason for training (tables D.5 and D.6)
- 87 per cent of graduates and 81 per cent of module completers were satisfied or very satisfied with the overall quality of training they undertook (tables D.7 and D.8)
- 93 per cent of graduates and 88 per cent of module completers reported that they would recommend their training to others (table D. 16)
- 92 per cent of graduates and 90 per cent of module completers reported that they would recommend the institution where they undertook their training to others (table D. 16).

Similarly, students studying at private RTOs appear to have high levels of satisfaction. In late 2009, the Australian Council for Private Education and Training (ACPET) surveyed almost 10 000 international students and concluded:

> This pilot research found that 86 [per cent] of international students studying at ACPET member institutions are satisfied or very satisfied with all aspects of their study experience. (ACPET 2010b)

Unlike the SOS, these data capture both publicly-funded and fee-for-service activity in private RTOs.

Students' opinions about various aspects of their publicly-funded VET courses varied across different elements of their experience. Compared to perceptions of teacher quality, satisfaction rates were lower for assessment, and lower again for generic skills acquisition and learning experiences. For example, 91 per cent of VET graduates agreed or strongly agreed with the statement 'my instructors had a thorough knowledge of the subject content', 87 per cent with the statement 'the way I was assessed was a fair test of my skills' and 56 per cent with the statement 'my training improved my skills in written communication' (tables D.7 and D.8).

As mentioned earlier, employment-related outcomes are important motivators for VET study in the publicly-funded VET system. For many students, employment status improved after training. In 2009:

- of the 25 per cent of graduates and 24 per cent of module completers not employed before training, 42 per cent and 26 per cent of each group, respectively, were employed after training

- for those already employed before training, 21 per cent of graduates and 10 per cent of module completers were employed at a higher skill level after training

- for those employed after training, 72 per cent of graduates and 54 per cent of module completers reported receiving at least one job-related benefit from training (NCVER 2009e).

Lee and Polidano (2011) undertook a multivariate analysis of the factors that determine students' satisfaction with teaching, assessment and generic skill and learning experiences using the 2009 SOS. They found that:

- Students who undertook fee-for-service TAFE courses or government-funded courses at private RTOs were more likely to be satisfied than students who undertook publicly-funded TAFE courses.

- Students who studied IT were less likely to be satisfied than students who studied management and commerce courses, while students who studied in the following fields were more likely to be satisfied than students who studied management and commerce courses:

  - engineering and related technologies; education; society and culture; and food, hospitality and personal services.

- Students in regional and remote areas were more likely to be satisfied than students in urban areas.

Variation in outcomes across student groups

As mentioned earlier, not all VET students seek to complete a full qualification such as a Certificate or Diploma. Some only enrol in subjects or Statements of Attainment. In 2009, satisfaction was higher among students who enrolled in a Statement of Attainment (89 per cent) or subject only (87 per cent), than among module completers who enrolled in a full qualification and did not complete (below 79 per cent for each qualification level). Moreover, at each Certificate and Diploma level, satisfaction was higher for graduates than for module completers (Productivity Commission estimates based on unpublished data from NCVER 2009e).

Detailed data on students' opinions reveal their assessment of teaching quality. On the whole, module completers who enrolled in Diploma or higher qualifications tended to be less satisfied with teacher quality than those who undertook lower-level qualifications. For example, 71 per cent of the Diploma and above cohort were satisfied that instructors understood their learning needs, in contrast with 77 per cent of the Certificate III cohort. A similar gap exists for the indicator 'my instructors made the subject as interesting as possible', with percentages of students satisfied for each of these groups of 67 and 75 per cent, respectively (table D.10). Students were generally positive about their teachers' knowledge of the subject content, regardless of the level at which they studied.

Subject completion rates for students who might experience disadvantage were a little lower than for all students. Sixty-one per cent of Indigenous students and 62 per cent of students with disability were assessed and passed, compared to 67 per cent of all students. Indigenous students withdrew from 17 per cent of their subjects and students with disability from 13 per cent. These rates were high, compared to the average rate of withdrawal, which was 8 per cent (table D.3). The main reasons given for withdrawal by these groups were personal, and not training related (table D.14).

Students from these groups are also overrepresented at lower qualification levels. This is especially the case for Indigenous students, 42 per cent of whom were studying at Certificates I and II, compared with 23 per cent of all students. Only 4 per cent of Indigenous students were studying at Diploma or higher levels, whereas 12 per cent of all students were studying at these levels (table B.20).

In 2009, 86 per cent of VET graduates and 82 per cent of VET module completers achieved (fully or partly) their main reason for training. This measure varied by disadvantaged groups. While 89 per cent of VET graduates aged 20 years and over with low prior educational attainment (below Year 12) and 87 per cent of Indigenous graduates achieved their main reason for training, only 82 per cent of graduates who spoke a language other than English at home and 77 per cent of graduates with disability achieved their main reason for training. For each disadvantaged group, a smaller proportion of VET module completers achieved their main reason for training, compared with the average for all module completers (table D.15).

Indigenous students tend to have more positive opinions about their training experiences than do other students. In 2009, 55 per cent of Indigenous graduates *strongly* agreed with the statement 'overall I was satisfied with the quality of this training', in contrast with 42 per cent of all graduates. Thirty-seven per cent of Indigenous graduates and 47 per cent of all graduates agreed with the statement.

Indigenous graduates were also more positive about many elements of their teaching than other students. For example, 58 per cent of Indigenous graduates *strongly* agreed with the statement 'my instructors understood my learning needs'. Forty-nine per cent of all other graduates held this view. Indigenous module completers also tended to have more positive opinions about their training than other students, particularly in regard to generic skills acquisition and learning experiences (tables D.11 and D.12).

Students with disability tend to be as positive about their training experiences as other students. In 2009, 43 per cent of graduates with disability strongly agreed that overall they were satisfied with the quality of their training. Graduates with disability were about as likely as other graduates to be positive about elements of the teaching they received. Module completers with disability were also as likely as other module completers to be satisfied with their training (tables D.11 and D.11). Overall, high satisfaction rates are recorded for students with disability, which might be due to links between VET and improved employment outcomes. Polidano and Mavromaras (2010) found that completing a VET qualification helped people with disability get a job, more so than for people without disability. The benefits of completing a VET qualification also included improved job retention for people with disability. The authors noted that the accessibility of VET, including flexible course design and delivery, by comparison with other post-school education, might make this pathway more attractive to people with disability.

Limitations of the Student Outcomes Survey

The SOS has a number of limitations. First, it only captures the outcomes and satisfaction with study of students that undertook VET in the previous year. However, the wage benefits of VET and other types of education can take many years to be realised. Stromback (2010) estimated the effect of Year 12 completion and VET qualifications on early career earnings (up to the age of 25) and found that completing Year 12 or VET qualifications had no significant impact on earnings within that timespan. Like the SOS, this research is limited as it does not capture the longer-term benefits of VET. Stromback provided age–earnings profiles for the ages of 15 through to 64 years. These profiles demonstrate that while completing Year 12 or a VET qualification has no impact on early career earnings there are significant longer-term wage benefits.

Second, the SOS does not cover students studying fee-for-service courses in private RTOs.

Third, Lee and Polidano (2011) have shown that the SOS, while satisfactory on the whole, has scope for improvements at the technical and conceptual level (box 5.1).

Box 5.1 Some limitations of the Student Outcomes Survey

Lee and Polidano (2011) examined the potential use of information from the SOS to gauge training quality. They contend that students lack information on course quality. They noted that employment outcomes measures from the SOS are more meaningful in determining course quality than student satisfaction measures, because outcome measures better align with students' motivations for training. The authors recommend that a selection of outcome measures, controlled for differences in student characteristics, along with other relevant course information, be made available to prospective VET students as part of a 'scoreboard', similar in nature to the *Good Universities Guide*. Lee and Polidano recommended that the NCVER:

- publish individual information at the provider level

- collect more information on students and their labour market outcomes

- increase the sample size and survey response rates — in recent years, the size of the survey has fluctuated between 81 000 and 300 000. Response rates are about 40 per cent for graduates and 30 per cent for module completers

- expand the survey to include information on private fee-for-service courses and Adult Community Education (ACE) courses

- add a panel (time) dimension to the survey.

In the foreword to their paper, the NCVER noted their responses to the authors' suggestions, including a number of relevant projects:

- The NCVER is reviewing the data protocols which currently proscribe the release of identified provider information.

- The NCVER reviews the survey instrument regularly and welcomes Lee and Polidano's suggestions.

- The NCVER has commenced a three-year project to address the data gap for fee-for-service activity and ACE.

- Others have also identified the need for panel data that allow for the pathways of students to be tracked over time. The main issues with this proposal are the cost and the likely response rate in subsequent waves.

Lee and Polidano noted other limitations of the SOS. Students who ceased studying without completing a module are not in the scope of the survey — these students might be the most dissatisfied. Student perceptions of quality might not be a valid measure of actual training quality, because the survey is conducted about six months after completion.

Source: Lee and Polidano (2011).

International students' satisfaction

In February 2010, the Baird Review into the *Education Services for Overseas Students (ESOS) Act 2000* (Cwlth) regulatory framework was provided to the Australian Government. This review was recommended by the Bradley Review (Australian Government 2008). Concerns raised during consultations for this review included:

> … false and misleading information provided by some education agents, poor quality education and training, gross over-enrolments, lack of appropriate education facilities, providers paying exorbitant commissions to education agents, limited financial scrutiny of providers, ineffective application and enforcement of regulation, low English language entry requirements, poor social inclusion of students in their institutions and the broader community, inadequate complaints and dispute handling services and some duplication between Commonwealth and states and territories leading to confusion and unnecessary regulatory burden. (Australian Government 2010, pp. iii–iv)

Notwithstanding these concerns, the Baird Review concluded that 'while the concerns were numerous … the majority of providers are doing the right thing … international students are, by and large, satisfied with their Australian education experience' (Australian Government 2010d, p. v). Australian Education International — the international arm of DEEWR — generates data on international student satisfaction. A 2009-10 survey of international students about their living and study experience in Australia, based on the International Student Barometer (ISB) to allow for comparisons with other countries, found that, of international students studying in the VET sector in Australia:

- 88 per cent were satisfied with their living experience
- 85 per cent were satisfied with their study experience (AEI 2010d, p. 4).

Satisfaction rates for international students in the VET sector were similar to ISB rates — 86 per cent satisfaction with living experience and 86 per cent satisfaction with study experience (AEI 2010d, p. 4). However, the ISB only covers higher education, so is of limited use in comparing satisfaction for international students in the Australian VET sector with international students in other countries.

Satisfaction rates for international students in the VET sector were similar to those in the higher education and ELICOS (English Language Intensive Courses for Overseas Students) sectors. Satisfaction was lower for international students in the schools sector (74 per cent were satisfied with their living experience and 76 per cent were satisfied with their study experience) (AEI 2010d, p. 4).

5.2 Employer expectations and experiences of VET

In the late 1980s, the VET system moved from a provider-driven approach towards an industry-led system, whereby industry sets standards of competency. 'Industry' is taken to include individual employers, as well as employer and employee peak bodies. This section discusses: what employers expect from VET; how employers influence VET; and whether employers' expectations are being met.

What do employers expect from VET?

In practice, employers expect the VET sector and its workforce to deliver relevant high-quality education and training, leading to competent and work-ready employees. 'Industry currency' of the VET workforce is critical to the relevance and quality of education and training (industry currency is discussed in detail in chapter 9). Competency can be defined as 'the consistent application of knowledge and skill to the standard of performance required in the workplace. It embodies the ability to transfer and apply skills and knowledge to new situations and environments' (NQC 2009b, p. 6).

Employers also expect VET to deliver broader employability skills, sometimes referred to as generic skills. Employers have identified these skills to include: communication; team work; problem-solving; initiative and enterprise; planning and organisation; self-management; and learning and technology. Personal attributes, including motivation, reliability and personal presentation, are also important to employability (DEST 2002). Employers also expect VET providers to teach foundation skills to students, where they do not possess them. Australian Industry Group (Ai Group) found that three quarters of employers were affected by low levels of literacy and numeracy skills amongst their workers (Ai Group 2010).

Employers also have expectations of VET providers, including wanting VET providers to be flexible and able to adapt courses to meet the needs of workplaces:

> Industry engagement is vital and the capacity to work with enterprises to understand their business needs and design skilling solutions is crucial. … Responsiveness and flexibility must become essential elements of VET sector operations. (Ai Group, sub. 14, pp. 4–5)

This expectation appears to be increasing. Mitchell et al. (2006, p. 13) found that 'one critical issue for contemporary VET is meeting the increasing demand for the customisation and personalisation of training services'.

Alongside quality, employers expect the VET sector to provide a sufficient quantity of competent and work-ready employees. Many employers are concerned about

skill shortages. Submissions from Ai Group and the Minerals Council of Australia (MCA) commented on skill shortages:

> [T]he VET workforce must play a large role in addressing [skill shortages] through its training of both new entrants and existing workers. Industry is facing skills shortages now: future demographic and economic change … will exacerbate these trends with more people staying in the workplace longer resulting in an increasing need to upskill and reskill and, the shift to the use of increasingly sophisticated technologies placing further demands on the VET workforce. (Ai Group, sub. 14, p. 6)

> [By 2015] the minerals sector will need to attract an additional 77,000 people, including tradespeople, plant operators and professionals. … [T]here could be a deficit of up to 36,000 tradespeople nationally. (MCA, sub. 23, p. 5)

Master Builders Australia commented on skill shortages in the VET sector:

> Master Builders is seeing an emerging shortfall in VET trainers and assessors both in traditional trades and paraprofessional areas. The current cohort of training professionals is predominantly in late middle age and there is no evidence of a significant stream of younger trainers and assessors coming on line to replace those staff approaching retirement. (sub. DR67, p. 1)

The VET sector, along with the higher education sector and skilled migration, are critical to addressing skill shortages in the economy.

DEEWR undertakes research on skill shortages, and monitors occupations for which skill shortages exist. DEEWR (2010e) found that there was a significant fall in demand for skilled workers in 2009, associated with the global recession and, as a result, a fall in the number of skilled occupations in shortage. In the nine months to June 2010, this trend was reversed, with strong recovery in demand for skilled workers, and skill shortages becoming more widespread. As at June 2010, skill shortages[2] were most apparent in:

- engineering, health diagnostic and therapy and nursing professions

- automotive, construction and food trades (DEEWR 2010e, p. 13).

With the exception of engineering draftspersons and enrolled nurses, VET qualifications are not required for the first nominated group of professions in shortage. Relevant qualifications for that group are delivered almost exclusively by the university sector. By contrast, automotive, construction and food trades are all occupations for which a VET qualification is needed. With the exception of some

---

2 DEEWR defines 'skill shortages' as: employers being unable to fill, or having considerable difficulty filling, vacancies for an occupation, at current remuneration and conditions of employment, and in a reasonably accessible location.

food trades, such as cooking, pathways to these occupations are through apprenticeships.

The Department of Immigration and Citizenship publishes the Skilled Occupation List (SOL). The SOL is used to assess applicants for the General Skilled Migration program. The SOL was developed by Skills Australia, and came into effect on 1 July 2010, replacing the Migration Occupations in Demand List (DIAC 2010). Occupations on the SOL, for which a VET qualification is needed or appropriate, also tend to be traditional trades such as carpenters, electricians and mechanics.

Whether skills classified as 'in shortage' or 'in demand' — and for which a VET qualification is needed — are produced in sufficient numbers is not just a consequence of priorities within the VET sector. The willingness of employers to engage apprentices and recently qualified skilled workers, and of people to undertake training in these occupations, also matter.

Employers also expect the sector to play a role in meeting other broader economic challenges, such as low productivity. Industry Skills Councils noted that:

> The overriding context within which the VET system and its workforce must operate is Australia's need to lift productivity and workforce participation rates to world class levels. (sub. 41, p. 1)

Expectations of employers are also revealed by the Australian Chamber of Commerce and Industry's (ACCI's) support for: improved articulation arrangements across the school, VET and higher education sectors; improved access to VET-in-Schools; raising the status of VET; and student-centred funding (ACCI 2007).

How do employers influence the VET sector?

Employers can influence the VET sector through purchasing or providing VET, industry advisory arrangements, partnerships with RTOs and other methods.

Purchasing VET

Employers convey their views directly to providers through purchasing training for their staff from some RTOs rather than others. Employers also convey their views through employment decisions. Some employers might prefer to hire staff who have studied with particular RTOs rather than others (this issue is discussed in further detail later in this chapter). As discussed in chapter 4, many governments have moved towards a 'user pays' system. Over time, this is likely to mean that

employers will fund a greater proportion of VET activity and will, therefore, be more influential. There have also been moves to increase competition and contestability in the provision of VET, which provides employers with greater opportunity to reveal their preferences for some RTOs over others.

Provision of VET

Employers also influence the sector by providing training to their staff. Most employers provide formal and informal training to their workforce. Some employers, whose principal business is not education and training, go further and seek accreditation as RTOs, enabling them to deliver nationally-recognised qualifications and access government funding. So-called Enterprise RTOs (ERTOs) are established for a range of reasons, including customising of training and greater flexibility and control in the delivery of training (ERTOA 2009). As at August 2010, there were 323 ERTOs in Australia — 112 government and 211 non-government (table B.1). Box 5.1 profiles Woolworths Ltd's RTO.

Box 5.2   **Woolworths Ltd's RTO**

Woolworths Ltd is an example of a non-government enterprise that has established an RTO. It is an Australian listed retail company and one of the largest private sector employers in Australia. Woolworths was an 'early adopter', becoming a Registered Training Organisation in 1996 (ERTOA 2009). Woolworths supermarkets offers nationally-recognised qualifications to their staff, from Certificate II to Diploma level, including apprenticeships, traineeships and school-based traineeships.

Woolworths supermarkets delivers the following qualifications:

- Certificates II and III in Retail Operations
- Certificate III in Warehouse and Distribution Management
- Certificate IV in Woolworths Management
- Diploma of Retail Management
- apprenticeships as a butcher or baker.

Source: Woolworths Ltd (2010).

Industry and professional associations also provide VET. As at August 2010, there were 332 industry associations and 37 professional associations that were RTOs in Australia (table B.1). Examples include Ai Group, Master Builders Associations and the Professional Golfers Association of Australia. A reason why such organisations register as RTOs is that they deliver qualifications specific to their

industry, but want these qualifications to be nationally recognised and therefore portable.

Industry advisory arrangements

Both employer and employee peak bodies play a key influencing role through Industry Skill Councils (ISCs), which are not-for-profit companies, recognised and funded by the Australian Government and governed by industry-led boards. A key role of ISCs is the development of Training Packages, which are:

> An integrated set of nationally endorsed standards, guidelines and qualifications for training, assessing and recognising people's skills, developed by industry to meet the training needs of an industry or group of industries. Training Packages consist of core endorsed components of competency standards, assessment guidelines and qualifications, and optional non-endorsed components of support materials such as learning strategies, assessment resources and professional development materials. (NCVER 2008, p. 73)

ISCs also have other roles, including:

- providing advice to Skills Australia, governments and enterprises on workforce development and skills needs

- providing independent skills and training advice to enterprises

- engaging with governments, industry advisory bodies and peak bodies

- developing other training and workforce development products.

Box 5.3 profiles each Australian ISC.

> **Box 5.3   Industry Skills Councils**
>
> There are 11 Industry Skills Councils (ISCs).
>
> **AgriFood Skills Australia** covers the national agrifood industry, including: rural and related industries; food processing (including beverages, wine and pharmaceuticals); meat; seafood and racing.
>
> **The Community Services & Health Industry Skills Council** covers the community services and health industries.
>
> **Construction & Property Services Industry Skills Council** represents the construction and property services industries.
>
> **EE-Oz Training Standards** represents communications and energy utilities industries including: electrotechnology; communications; computer systems; electronics; electrical; information/data technology/communications; instrumentation; refrigeration and air conditioning; lifts; renewable/sustainable energy; and gas and electrical supply.
>
> **SkillsDMC** represents the ISC for the resources and infrastructure sectors.
>
> **Government Skills Australia** covers the government and community safety sectors, representing the VET and workforce interests of correctional services, local government, public safety, public sector and water.
>
> **Manufacturing Skills Australia** covers the manufacturing and automotive industries.
>
> **The Transport and Logistics Industry Skills Council** covers the road transport, rail, warehouse and storage, maritime and aviation industries.
>
> **Innovation and Business Skills Australia** covers the industry sectors of: business services; cultural and creative industries; training and education; financial services; information and communication technologies; printing and graphic arts.
>
> **Service Skills Australia** represents a range of industry sectors, including: retail and wholesale; sport and fitness; community recreation; outdoor recreation; travel and tours; meetings and events; accommodation; restaurants and catering; hairdressing; beauty; floristry; community pharmacy; and funeral services.
>
> **Forest Works** covers the forest, wood, paper and timber products industries.

As noted above, employers expect VET to deliver broader employability skills. From 2006, at employers' request, employability skills were added into Training Packages by the relevant ISCs (IBSA 2008b).

Employers can also influence the VET sector through the National Quality Council (NQC):

> The NQC brings together … industry, unions, governments, equity groups and practitioners … It has a critical role in ensuring the successful operation of the National Skills Framework … (sub. 52, p. 1)

Other industry advisory arrangements are maintained by State and Territory Governments. Each state and territory also has Industry Training and Advisory Bodies that provide state-specific industry intelligence on skill requirements to each of the State Training Authorities (these arrangements are discussed in more detail in appendix E).

Beyond formal industry advisory arrangements, peak bodies represent the views of their members in many forums relating to VET, including, for example, this study.

Partnerships with RTOs

Employers can influence the VET sector through developing partnerships with RTOs. The NQC (2010b) published a 'guide' on partnerships for RTOs, enterprises and industry groups. Successful strategies documented in the guide include: developing strong relationships with RTOs; appointing a training coordinator; sharing facilities; adjusting demand to allow staff to be trained; encouraging employees to be trained as trainers; and providing coaching and mentoring to staff. Earlier work by Callan and Ashworth (2004) investigated a number of partnerships between employers and VET providers, and found that the gains from such partnerships for employers included an enhanced capacity to focus on their core business and to deal with a skill shortage. The partnerships profiled: were initiated by senior managers in the VET sector and involved a core group of provider and industry staff; had a 'break-even' attitude whereby the non-financial benefits were important; usually involved partners within close geographic proximity; and were ongoing relationships which often had no defined end date. –

Partnerships can help address the issue of the VET sector competing with employers for the same skilled workers. The Gordon noted that:

> [G]iven skills shortages and assuming that the economy continues to improve, we will be competing with our own industries, the industries that take our graduates, for the same staff. To address this, some Institutes are already forming partnerships with firms (particularly large firms) to share specialised staff under contract. (sub. 9, p. 2)

Partnerships have the potential to assist providers in meeting demand for new skills arising from technological developments. Manufacturing Skills Australia noted that:

> Ongoing and close partnerships with industry and enterprises would enable training providers to identify new technologies about to be introduced and therefore plan their response to the need for new skills. Another strategy would be to build partnerships with the developers of the new technology that would provide training providers with access to the technology. (sub. 22, p. 9)

Sectoral peak bodies can also influence the VET sector through partnerships with RTOs. At the initiative of Dairy Australia, the National Centre for Dairy Education Australia (NCDEA) was formed in late 2005, in partnership with Goulburn Ovens TAFE, to increase the industry's involvement in training. The NCDEA operates with an alliance of partner RTOs to deliver dairy farm training nationally. The NCDEA delivers nationally accredited courses from Certificate II to Advanced Diploma in agriculture, food technology and food processing.

Partnerships can help employers' engage Indigenous people. For example, Mcmahon, a company that has a contract with BHP Billiton to provide services to an iron ore mine, has a partnership with Pilbara TAFE and BHP Billiton to provide pre-employment training to local Indigenous people. Mcmahon's Indigenous initiatives are discussed in more detail in chapter 8.

The advantages of partnerships notwithstanding, employers have identified a number of barriers to partnering, including procedures, structures and accountability mechanisms within RTOs which have slowed the establishment of partnerships (Callan and Ashworth 2004).

Other methods

Many training providers maintain formal and less formal networks with their local business communities, for example, through sponsorship, and employers contribute to the governance of some providers through board membership. Satisfaction surveys run by providers and the NCVER are another avenue through which employers register their opinions of VET.

Are employers' expectations being met?

The Employer's Use and Views of the VET System survey

A key resource on employers' experiences of VET is the *Employers' Use and Views of the VET System* survey (SEUV), run every two years by the NCVER. In its Draft Report, the Commission reported that 57 per cent of employers used the VET system and that satisfaction among these employers was high, although satisfaction with unaccredited training was even higher (PC 2010). Since that report, the Commission has undertaken further analysis of the SEUV to determine whether broad employer satisfaction masks any pockets of dissatisfaction with the VET sector or its workforce. This analysis involved examining in more detail the

summary publication for the SEUV (NCVER 2009b) and interrogating its Confidentialised Unit Record File (CURF).

Use of the VET system

The SEUV identifies three methods of using the VET system. Employers can have:

- jobs in their businesses requiring vocational qualifications delivered by RTOs, including TAFEs and private providers
- at least one apprentice or trainee
- staff who undertake 'other nationally recognised training[3]' — nationally recognised training other than apprenticeships or traineeships.

The SEUV has a broader scope than the SOS. Unlike the SOS, the SEUV covers fee-for-service activity delivered by private RTOs. Figure 5.1 illustrates varying uses of the VET system by employers. About half of all employers who used the VET system used it in multiple ways.

Figure 5.1 **Employers' use of the VET system, by type of use**
Per cent of all VET users
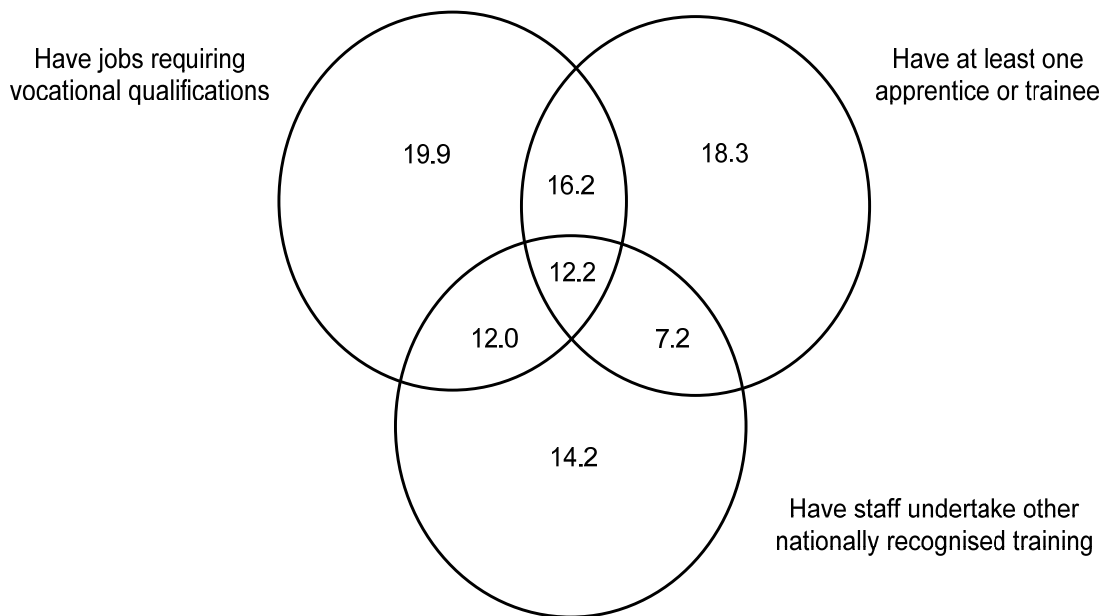
Source: Productivity Commission estimates based on NCVER (2009b).

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3   Only Registered Training Organisations can deliver nationally recognised training.

As noted above, a slight majority (57 per cent) of employers used the VET system in 2009. However, these employers employed the vast majority of employees (about 86 per cent) (Productivity Commission estimates based on NCVER 2009b).

The Commission also analysed use of the VET system by firm size, industry and location. Larger firms were much more likely than others to use the VET system in 2009 (table 5.2). Larger firms were also more likely to use the VET system in multiple ways (data not shown). Use of the VET system also varied by industry. Employers in the manufacturing, construction and other services industries were much more likely to have at least one apprentice or trainee (44 per cent, 63 per cent and 51 per cent, respectively) than employers overall (31 per cent). Employer use of the VET system did not vary much by state and territory (NCVER 2009b).

Table 5.2   **Use of the VET system, by type of use and firm size[a, b]**
Per cent

	Small[c]	Medium[c]	Large[c]	All firms
Have jobs requiring vocational qualifications.	32.8	42.8	69.4	34.2
Have at least one apprentice or trainee.	29.1	39.6	66.6	30.5
Have staff undertake other nationally recognised training.	24.1	36.6	67.4	25.8
Total	**100.0**	**100.0**	**100.0**	**100.0**
Total number	771 274	90 663	8 259	870 196

a For this analysis, the 'don't know or can't say' category, which includes 'unsure if course was nationally recognised', is coded as not making use of the VET system and is included in the denominators. **b** Based on weighted data. **c** Small firm (0–9 employees). Medium firm (10–99 employees). Large firm (100 or more employees).

Source: Productivity Commission estimates based on NCVER (2009b).

Reasons for not using the VET system

The Commission also analysed why some employers do not use the VET system or no longer use the VET system. In 2009, employers were most likely to not use the VET system because there was 'no need' or because training was 'unsuitable for/not relevant to this organisation/industry'. These reasons were mentioned by about 70 per cent of respondents. Other major reasons given were more related to the particular needs of the firm than to some potential inadequacy of the VET workforce (table 5.3).

In 2009, about half of employers who no longer used the VET system did so because there was 'no need' or training was 'unsuitable for/not relevant to this organisation/industry' (table 5.3). Very few who had tried VET before were now

dissatisfied, except with respect to using apprentices or trainees (8 per cent). One participant in the study argued that lower satisfaction rates, and higher dissatisfaction rates, reflect employers' concerns about the complexity and inconsistent application across jurisdictions of the apprenticeship and traineeship systems (John Churchill, ERTOA, pers. comm., 13 April 2011).

Table 5.3 **Reasons why employers do not use the VET system, by type of use[a, b, c]**

	Do not use VET			No longer use VET[d]		
	Do not use A	*Do not use B*	*Do not use C*	*No longer use A*	*No longer use B*	*No longer use C*
No need/unsuitable for/not relevant to this organisation/industry	70.6	72.9	73.7	45.5	45.1	45.6
Need specific skills for the job	9.2	5.7	5.3	7.9	1.7	5.2
Prefer other ways of meeting skill needs	11.1	4.9	5.8	7.1	3.1	4.1
Current employees adequately trained	12.1	3.5	11.6	15.0	1.4	37.4
Cost/too expensive	1.0	3.5	3.8	2.8	5.8	5.5
No-one suitable/available	1.6	6.3		8.7	8.5	
Tried before and were dissatisfied	0.7	0.6	0.8	1.6	8.2	2.1
Lack of time and resources to train them		4.1			5.0	
No vacancies/haven't needed anyone/lack of work		5.3			14.8	
Those employees have moved on to something else/don't stay long	–			5.4		
They leave half way through or when finished		0.9			8.3	
Experience more important than qualifications	19.6			11.3		
Training not available			3.1			0.7
Staff turnover			1.1			2.0
Other	0.6	0.4	0.2	1.6	0.9	2.0
No particular reason	1.2	1.4	3.0	1.6	0.8	1.2
Total employers not or no longer using type of VET	**205 228**	**459 117**	**537 919**	**105 222**	**145 287**	**98 444**

– Nil or rounded to zero. A = Vocational qualifications as job requirements. B = Apprentices or trainees. C = Other (not apprentices or trainees) nationally recognised training. **a** Shaded cells are not applicable as they were not response options to question. **b** Multiple responses are allowed. **c** Based on weighted data. **d** 'No longer use VET' is a subset of 'do not use VET'.

Source: Productivity Commission estimates based on NCVER (2009b).

Satisfaction with the VET system

The SEUV measures employers' satisfaction with the VET system, using a five-point scale. For the purpose of this analysis 'satisfied' includes, employers who are 'very satisfied' and 'dissatisfied' includes employers who are 'dissatisfied' or 'very dissatisfied'. The SEUV includes follow-up questions for dissatisfied employers, asking them the reasons for their dissatisfaction.

The vast majority of small, medium and large employers who used the VET system in 2009 were satisfied with it. Across the three possible uses of VET, large employers were marginally more likely than medium and small employers to be satisfied. Satisfaction was slightly lower, and dissatisfaction was slightly higher, with apprentices and trainees than with other methods of using the VET system (table 5.4).

The SEUV can also be used to analyse employers' satisfaction by state and territory and by industry. In 2009, employers' satisfaction with the VET system did not vary much across the states and territories. In contrast, satisfaction varied considerably across industry. For example, satisfaction among employers in the mining industry was above 90 per cent for each of the three methods of use, higher than for employers in other industries. In contrast, employers in the agriculture, forestry and fishing industry were less likely than other employers to be satisfied with the VET system, particularly with vocational qualifications and other nationally recognised training. Industry satisfaction rates tended to be similar for each method of use, for example, satisfaction among employers in the public administrative and safety industry was high for each method (NCVER 2009b).

Table 5.4 Employers' satisfaction with the VET, by firm size[a]

Per cent

	Have jobs requiring vocational qualifications			Have at least one apprentice or trainee			Have staff undertake other nationally recognised training		
	S	*M*	*L*	*S*	*M*	*L*	*S*	*M*	*L*
Satisfied[b]	82.4	80.8	86.2	81.9	80.1	85.3	83.9	85.4	87.2
Neither satisfied nor dissatisfied	8.9	10.9	10.7	6.3	7.3	9.3	7.3	7.7	6.5
Dissatisfied[c]	7.2	7.5	1.6	10.3	9.5	1.9	7.0	4.5	4.3
Don't know/ can't say	1.4	0.8	1.6	1.5	3.0	3.4	1.8	2.4	1.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Total number	252 784	38 780	5 733	224 359	35 933	5 501	186 107	33 178	5 570

S = Small firm (0–9 employees). M = Medium firm (10–99 employees). L = Large firm (100 or more employees). **a** Based on weighted data. **b** Includes 'satisfied' and 'very satisfied'. **c** Includes 'dissatisfied' and 'very dissatisfied'.

Source: Productivity Commission estimates based on NCVER (2009b).

Table 5.5 shows that satisfaction with the VET system is higher, and dissatisfaction is lower, among ERTOs than among other employers (table 5.5). However, the implications of this result are unclear. It may be assumed that all ERTOs are dissatisfied to some degree with the courses that other RTOs offer, or else they would not have invested resources into establishing and running an ERTO. Or they might wish to keep intellectual property in-house. Ultimately, however, high levels of satisfaction with the VET system, as measured by the SEUV, reflect ERTOs' satisfaction with the enterprise model of delivering training.

Table 5.5 Satisfaction and dissatisfaction with the VET system among Enterprise Registered Training Organisations, by type of use[a, b]

	Satisfied[c]	Neither satisfied nor dissatisfied	Dissatisfied[d]	Total[e]
	%	%	%	no.
Have jobs requiring vocational qualifications	90.9	0.4	8.6	**14 678**
Have at least one apprentice or trainee	89.3	5.0	5.6	**19 135**
Have staff undertake other nationally recognised training	96.2	3.2	0.4	**11 831**

a 'Enterprise RTOs' defined as RTOs that deliver training 'mainly to own employees'. **b** Based on weighted data. **c** Includes 'satisfied' and 'very satisfied'. **d** Includes 'dissatisfied' and 'very dissatisfied'. **e** Total includes 'don't know or can't say'.

Source: Productivity Commission estimates based on NCVER (2009b).

Firms use the VET system in multiple ways. The Commission has analysed whether these firms are dissatisfied with one or multiple methods of use, to determine whether there is a group of employers who are wholly dissatisfied with the system. Very few employers who use the VET system in multiple ways are dissatisfied with each of the ways in which they use the system. For example, only 2 per cent of those who use the system in all three ways are dissatisfied across-the-board (table 5.6).

Table 5.6 Dissatisfaction among users of the VET system, by method of use[a, b, c, d]

	Dissatisfied with at least one method	Dissatisfied with at least two methods	Dissatisfied with three methods	Total dissatisfied employers	Total employers
Uses the system in one way[e]	8.0			20 886	258 135
Uses the system in two ways[f]	14.1	3.7		24 689	174 915
Uses the system in three ways[g]	11.0	4.1	2.2	6 608	59 993
All users	**10.3**	**3.8**	**2.2**	**52 182**	**493 043**

a Dissatisfied includes 'dissatisfied' and 'very dissatisfied'. **b** The *Employers' use and views of the VET system* survey examines three ways which employers can use the VET system: having jobs requiring vocational qualifications; having at least one apprentice or trainee; and having staff undertake other nationally recognised training. **c** Shaded cells are not applicable. **d** Based on weighted data. **e** Denominator is employers that use the VET system in one way. **f** Denominator is employers that use the VET system in two ways. **g** Denominator is employers that use the system in three ways.

Source: Productivity Commission estimates based on NCVER (2009b).

In 2009, employers were most likely to be dissatisfied with the three methods of use of the VET system because they do not include 'enough hands on/practical skills taught' or 'relevant skills', the qualification is 'too general' and 'not specific enough' or the training is 'poor quality/low standard'. About 25 per cent of employers were dissatisfied with apprentices and trainees because the apprentice or trainee was the wrong person or had the wrong attitude (table 5.7).

It is noteworthy that, on the question of trainers and assessors, opinions are divided according to type of use. Nearly a fifth of employers who have jobs requiring VET qualifications and are dissatisfied with the VET system respond that trainers do not have enough skills or industry experience. This source of dissatisfaction with VET is much less prevalent among dissatisfied employers who have staff undertake other nationally recognised training to their employees (4.5 per cent) and non-existent among those who have apprentices and trainees.

While, overall, employer dissatisfaction with trainers and assessors does not appear high, compared with other sources of dissatisfaction, it is unclear whether other sources of major dissatisfaction (for example, 'don't teach relevant skills/mismatch between skills') are due to course content, the standard of facilities or to the industry currency of trainers and assessors.

Table 5.7 **Reasons for dissatisfaction with the VET system, by type of use[a, b]**

Per cent

	Have jobs requiring vocational qualifications	Have at least one apprentice or trainee	Have staff undertake other nationally recognised training
Not enough hands on/practical skills taught	31.6	29.7	34.3
Don't teach relevant skills/mismatch between skills	41.6	40.1	39.2
Standards are inconsistent across institutions	4.2	6.3	6.5
Training content outdated	14.2	6.1	14.0
Qualification/training too general/not specific enough	21.6	19.6	28.2
Lack of flexibility with training/too rigid (time and method)	2.0	4.0	16.1
Trainers do not have enough skills/industry experience	19.3	–	4.5
Training is poor quality/low standard	26.5	32.1	39.4
Poor access/availability of training (regional/rural)	5.9	0.9	4.4
Not enough communication between provider and employer	0.4	7.5	–
Apprentice/trainee wrong person/poor attitude		25.2	
Other	2.1	0.9	6.3

– Nil or rounded to zero. Shaded cells are not applicable. **a** Multiple responses are allowed. **b** Based on weighted data.

Source: Productivity Commission estimates based on NCVER (2009b).

Validity of the SEUV

Analysis of the robustness of the SEUV has not been located. However, survey responses are collected from a large and representative sample of Australian firms (over 5000 in 2009), lending support to the view that the survey data allow an accurate picture to be drawn of what Australian firms think of the VET system. There is a lack of clarity, however, about the reasons why some firms do not use the VET system. It is unclear whether responses categorised as 'unsuitable or not relevant to the organisation' mean that some firms do not have a need for VET, or believe that the system is unable to meet their needs for training. The NCVER noted that:

> The questions about why employers do not use the VET system are asked of all employers who have not used the VET system or no longer use the VET system. … If

the response is unclear the interviewer will probe further as to what the respondent means. … For those employers who were dissatisfied with a previous apprentice/trainee (for example) the interviewers would be advised to put that response into the 'tried before and were dissatisfied category'. (Rittie, T. NCVER, pers. comm., 8 Nov 2010)

The NCVER regularly reviews the SEUV and is currently engaged in such an exercise. A discussion paper was released in March 2011, as part of this review. The paper noted a trade off between sample size and length of the interview:

> The 2009 survey took employers an average of 15 minutes to complete over the telephone. We would like to limit future surveys to about the same length. Interviews any longer than this tend to lead to higher refusal rates. … there is a trade-off between the length of the questionnaire and the number of telephone interviews achieved. Reducing the length of the survey would allow us to conduct more interviews, potentially improving the quality of estimates. (NCVER 2011c)

The discussion paper ranked questions in the SEUV as low, medium or high priority, and suggested removing low priority questions from the survey. The Commission used data derived from medium and high priority questions, and did not use low priority questions in its analysis of the SEUV. The Commission agrees that low priority data items should be deleted and supports efforts to increase the sample size. However, the Commission proposes adding further questions on satisfaction to assess employers' satisfaction with different aspects of the VET system, including the VET workforce. The Commission also suggests amending the current question relating to ERTOs or adding a question to help clarify what satisfaction among ERTOs means.

The discussion paper also suggested making use of an internet based survey in combination with the existing telephone survey, provided it does not compromise the quality of data. The Commission supports this option being investigated.

RECOMMENDATION 5.1

The National Centre for Vocational Educational Research (NCVER) should amend the Employers' Use and Views of the VET System survey (SEUV) to allow for more detailed analysis of employers' satisfaction, to be offset by the removal of low-priority questions. The NCVER should include further questions that measure employers' satisfaction with different aspects of the VET system, including the performance of the VET workforce. The NCVER should also modify the SEUV to clarify what satisfaction among Enterprise Registered Training Organisations means.

Other analysis based on the SEUV

Roberts (2010) modelled changes in employers' satisfaction with the VET system from 2005 to 2009, by state and territory, using the SEUV. He controlled for the interaction of satisfaction with firm size and industry, in order to correct for sampling error across time. Roberts found that, from 2005 to 2009, there was a significant increase in satisfaction among employers in:

- South Australia with vocational qualifications as a job requirement

- New South Wales, Tasmania and the ACT with at least one apprentice or trainee

- New South Wales, South Australia, Western Australia and the Northern Territory that provide nationally recognised training to staff.

Roberts found no significant decreases in employer satisfaction over the period.

Rittie and Awodeyi (2009, p. 9) analysed data from the 2005 and 2007 SEUV surveys. The authors noted that 'satisfaction with the VET system is high'. Nonetheless, the authors found that a consistent message from small and large businesses requiring qualifications for jobs was that the system needed to provide more practical skills training and workplace experience. Employers with apprentices and trainees, particularly those in small- and medium-size businesses, believed that training improvements required additional government funding.

Other sources of employer views on the performance of VET

Concerns with assessment of VET students

Unlike the data from the SEUV, other sources provide a mixed view of employers' satisfaction. The NQC (2008) examined industry views of competency assessment in the VET sector, in part through a survey of industry stakeholders. That survey found that:

- 67 per cent of stakeholders were satisfied or very satisfied with how people in their organisation had been assessed for competence, 19 per cent were neither satisfied nor dissatisfied, and a further 15 per cent were dissatisfied or very dissatisfied

- 58 per cent of respondents agreed or strongly agreed that assessors conducted appropriate assessment to determine competence, 20 per cent were undecided, and a further 23 per cent disagreed or strongly disagreed (Productivity Commission estimates based on NQC 2008).

However, conclusions from this study were based on a relatively small dataset. Broad satisfaction with assessment amongst a few employers might mask instances of employer dissatisfaction with specific aspects of VET.

In contrast to VET assessment in Australia, New Zealand's model includes national external moderation. In New Zealand, Industry Training Organisations (ITOs), which are similar to ISCs in Australia, conduct regular moderation of assessments undertaken by accredited VET providers. This model aims to ensure consistency in assessment across the country.

In 2009, compliance with New Zealand's national standards varied dramatically by industry. Fifteen ITOs found that over 90 per cent of assessments met the national standard, while four ITOs found that less than 50 per cent of assessments met the standard. Remedies pursued by ITOs included asking providers to resubmit assessment materials and increased frequency of moderation visits in the future. In most cases, the processes for following up non-compliance were reported as being very effective (by 71 per cent of ITOs). The New Zealand Government provides about 40 per cent of the funds needed to administer the system. More detail on this model can be found in appendix F. The NQC has recently been considering external moderation:

> Based on its research in 2010, the NQC has recommended to [the National Senior Officials Committee] that priority is given by states and territories to building VET workforce capabilities [for assessors] … including a particular focus on moderation and validation and the role that these processes have in managing the quality of assessment. (sub. DR76, pp. 7–8)

The issue of the quality of assessment of VET students by RTOs is taken up again in chapter 10.

Workplace relevance of VET

Workplace relevance of VET is a concern for some employers. Ai Group and the MCA commented on the relevance of VET:

> Training providers need to be much more flexible in their dealings with industry to increase this responsiveness. … Public RTOs have been very slow to embrace work-based delivery compared to private RTOs. (Ai Group, sub. DR88, p. 2)

> For many years the publicly funded Vocational Education and Training (VET) sector has failed to meet the needs of the minerals industry. MCA has consistently advocated for reform of the VET sector as we believe that to make an optimum contribution to the Australian economy, the VET sector must be industry led and responsive to the needs of industry. (MCA, sub. 23, p. 3)

This view of the VET sector's performance appears consistent with a finding by the AEU, in a survey of TAFE workers, that '70 % of respondents said that their TAFE did not have the capacity to meet industry needs, particularly in the local community' (AEU 2010, p. 1).

The National Skills Policy Collaboration — which comprises the Ai Group, the Australian Council of Trade Unions, the AEU, the Dusseldorp Skills Forum and Group Training Australia — and is not solely an employer voice, noted that:

> While reforms to the [VET] system have led to considerable achievements, there are still some enduring concerns. These are focused on the match between what industry needs and what is being delivered; the capacity, flexibility and responsiveness of the training system to both employers and to learners; the continuing underinvestment in skills; the breadth of employer engagement in workforce development; and the need to better harness the productivity potential of investing in skills. (National Skills Policy Collaboration 2009, p. 2)

ACCI has argued that the system requires additional funding so that it can meet the needs of employers. In 2007, it released *Skills for a Nation: A blueprint for improving education and training 2007-2017*, which noted that:

> Adequately resourcing the VET system so that it is responsive to meet demand in all areas is therefore critical to ensuring an adequate supply of skills at all levels as required by industry. (ACCI 2007, p. 23)

Skills supply–demand mismatch

Part of employers' concerns is a perceived mismatch between the skills produced by the VET system and those required by employers. They want VET to teach skills which can be utilised directly in the workplace:

> Only when the skills acquired by an individual are used, and used productively, do governments and industry see a tangible return on their investment. … Only in the last two years has the phrase 'skills utilisation' entered the general VET lexicon. (Industry Skills Councils, sub. 41, p. 2)

In 2008, only 30 per cent of recent VET graduates reported that they were employed in the same occupation group as their training course. The link between skills acquired and occupation varied according to type of training. Seventy-nine per cent of recent VET graduates from a trade apprenticeship or traineeship and 38 per cent of those from a non-trade apprenticeship or traineeship were employed in the same occupation group as that course, following training. In contrast, 11 per cent of graduates from management courses were employed in the same occupation group (Karmel 2009). On face value, the mismatch is a cause for concern for employers. However, Karmel (2009, p. 9) is of the view that:

It is a mistake to think that there is a tight and deterministic relationship between VET and the labour market. VET provides skills that can be used in a variety of jobs. Most occupations, with the exception of some professions and the licensed trades, do not mandate particular qualifications. Similarly, training for an occupation does not imply that that training must be used only in that occupation, and much education, including VET, has a large component of generic education.

Reflecting this view, 34 per cent of VET graduates reported that they were employed in a different occupation group, but that their training was highly or somewhat relevant to their current job. Only 17 per cent reported that their training was of very little or no relevance to their current job. A further 18 per cent were not employed.

Other research reports a downside to a mismatch. Mavromaras et al. (2010) explored the incidence and wage effects of overskilling — excess skills and abilities required for a job — among employed VET graduates and those with other qualifications, and found negative consequences of overskilling. The authors found a significant wage penalty (negative wage premium) accruing to those who reported being overskilled, relative to those who were identical in other respects, such as qualifications and jobs. A significant wage penalty was found for Certificate III and IV graduates who were severely overskilled, but not for those who were moderately overskilled.

Ryan and Sinning (2011) examined the prevalence and implications of overeducation among younger Australian workers (aged 25–44) and the links between overeducation and skill mismatches. Workers are considered to be overeducated if their educational attainment exceeds the educational requirements of their jobs, and overskilled if the skills they possess exceed the skills required in their jobs. The authors found substantial differences in the concepts of overeducation and overskilling. They found that most overskilled younger workers have low levels of education, while most under-skilled younger workers hold a university degree. The authors also found that:

- both under-educated and under-skilled younger workers have higher wages than overeducated and under-educated younger workers

- a wage penalty from overeducation exists after controlling for actual level of education — this penalty varies substantially by education level and is highest for those with vocational qualifications

- after controlling for overeducation, overskilling has no additional effect on wages.

Employer concerns in specific sectors

As mentioned earlier, satisfaction with VET varies by industry. Employers and managers in some industries are much more likely to be dissatisfied with VET. For example, managers in the alcohol and other drugs sector of the health and community services industries (Pidd et al. 2010). These managers have identified attracting and recruiting appropriately qualified staff and the qualifications of existing staff as major problems for the sector. The VET sector provides the relevant qualifications. However, research shows that managers preferred to employ workers with higher education qualifications rather than VET qualifications, due to perceptions of greater professionalism and better interpersonal skills. Nearly one in four managers were dissatisfied with VET courses due to: poor quality training and assessment; lack of correspondence between the skills taught and those required in the workplace; training content being out of touch or out of date with industry; and lack of practical experience. Managers were also concerned about the variable quality of VET.

While there have been high profile concerns in recent years about poor quality VET being delivered by RTOs servicing the international student market, the concerns are actually more widespread. In its submission to this study, Aged & Community Services Australia, expressed its concerns about poor quality VET provision by some RTOs:

> The majority of RTOs do a very good job and put a lot of effort into developing their training courses and ensuring good student outcomes. Unfortunately, there is evidence that some students are graduating with poor quality qualifications making them virtually unemployable. This is not a reflection of the hard work put into the development of the content of the courses by the Community Services and Health Industry Skills Council and the aged care industry itself, but the dubious and sometimes unethical behaviour of some [RTOs]. (sub. DR97, p. 1)

The Community Services & Health Industry Skills Council also commented on poor quality VET provision in the aged care, disability and children's services sector:

> In the aged care sector stakeholders have advised the CS&HISC that variability in outcomes of qualifications delivered to aged care workers … means that many of these graduates are effectively 'un/sub-skilled' for the job. Qualifications are often delivered over short periods where it is very unlikely that candidate's skills will have formed to the level described in competency standards … Variability in output of RTOs in the aged care sector is a risk and performance of the VET sector and VET workforce needs to improve to mitigate this risk … In the disability sector, qualifications may be similarly fast-tracked and there is variability in outcomes. … Recent [NCVER] research however identifies that employers deliberately do not employ potential employees with VET qualifications due to the variability in skills of graduates. (sub. DR86, pp. 6–7)

Phillip Toner (sub. DR79) referenced several Independent Commission Against Corruption inquiries exposing improper conduct among some RTOs in New South Wales.

Concerns about poor quality VET provision by some RTOs have been raised by participants in other ongoing sector-specific inquiries conducted by the Commission. A selection of these concerns is reproduced in box 5.4. Concerns about delivery of the Certificate IV in Training and Assessment (TAE40110) are discussed in chapter 10.

Box 5.4 **Concerns about poor quality VET provision raised in other Commission inquiries**

Caring for Older Australians Inquiry

The draft report for this inquiry noted that a major issue raised in the study was:

> … the considerable variability in the skill level of personal carers and community care workers, even between those with comparable qualifications … Over the last 10 years, there have been Government funded initiatives aimed at increasing the skill levels of these workers. While these initiatives are acknowledged to have increased the skill level of the care workforce, some [aged care] providers are critical of the poor quality of training provided by some [Registered Training Organisations] (PC 2011a, pp. 368–9).

Some employers in the sector avoid hiring candidates from particular RTOs.

Disability Care and Support Inquiry

In its submission to the Disability Care and Support inquiry, Disability Professionals Australasia commented that:

> Lack of training is a major concern at all levels … Training for Certificate III and IV disability qualifications has often been heavily criticised by workers at all levels across the disability sector. (PC 2011b, sub. 316, p. 5)

Early Childhood Development Workforce Study

In its submission to the Commission's Early Childhood Development (ECD) study, the New South Wales Children's Services Forum noted that:

> The experience of members of the NSW Children's Services Forum as employers is that some newly qualified workers are very much work ready but that others are not. This appears to be dependent on the particular university or [RTO the course is from]. The quality of education and training appears to vary greatly and is often due to the amount of practicum/work placement required in the course. (PC forthcoming, sub. 23, p. 9)

SDN Children's Services, a childcare provider, commented that:

> [the quality of newly-qualified ECD workers depends] upon the University course or the Registered Training Organisation's course delivery. Some graduates are very much work ready – others not so and this is often due to the amount of practicum/work placement they have undertaken in their course. (PC forthcoming, sub. 31, p. 6)

Uniting Care Children stated that they have:

> … concerns that the training provided by some [RTOs] does not adequately prepare students to work in the [Early Childhood Education and Care] sector. (PC forthcoming, sub. 62, p. 20)

These concerns have prompted action by governments. In 2009, the Victorian Government committed to establishing a panel of preferred providers for Certificate III qualifications in child care from 2011 (DEECD 2009). Other governments have adopted this approach (DET NSW nd). Broader preferred provider lists have also been developed. For example, the Queensland Government established a preferred provider list for the Productivity Places Program (DET QLD nd).

Satisfaction data for the service sectors

The SEUV measures satisfaction by industry, including the 'health care and social assistance' industry. In 2009, about 90 per cent of employers in this industry were satisfied with the VET system. Satisfaction in this industry tended to be higher than satisfaction in other industries (NCVER 2009b, p. 13). However, the SEUV cannot be used to measure satisfaction by subsets of this industry, such as the aged care sector. The SOS focuses on specific areas of delivery and can, therefore, be used to indirectly measure employers' satisfaction. Any concerns employers' have about poor quality VET provision are likely to be reflected in labour market outcomes for VET students and will, in turn, be reflected in students' satisfaction. Data from the 2010 SOS show that:

- about 85 per cent of child care and aged care graduates, and about 95 per cent of graduates studying disability work were employed or in further study after their training. About 85 per cent of all graduates were employed or in further study after training

- graduates from these three fields of study were more likely than other graduates to report that their training was relevant to their current job

- graduates in these fields were as likely as other graduates (about 90 per cent) to report that they were satisfied with the quality of their training

- graduates in these fields were more likely than other graduates to report that they had achieved their main reason for training (82 per cent for child care graduates, 79 per cent for aged care graduates and 86 per cent for disability care graduates, and 73 per cent for all graduates).

The Productivity Commission will discuss the issues of poor and variable quality VET provision in these sectors further in forthcoming inquiry reports, but notes that concerns about poor quality VET provision are not restricted to these sectors.

Data on RTO cancellations and suspensions

Some state and territory Registration Bodies make data on RTO cancellations and suspensions publicly available. For example, in 2010, of the 1178 RTOs operating in Victoria (Productivity Commission estimates based on unpublished data from the National Training Information Service), 65 RTOs ceased operating and three were suspended. Of the 65 RTOs that ceased operating, 40 had their registration 'voluntarily cancelled', 15 had their registration 'cancelled', and 10 went into voluntary administration or liquidation (VRQA 2011).

6 Implications of a changing environment for the VET workforce

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Key points

- The VET workforce will increasingly need the capacity and capability to:
  - respond to unpredictable fluctuations in demand for training in a climate of policy change, economic volatility and shifting international conditions
  - deliver a higher volume of training overall
  - deliver more training at higher levels of qualification
  - deliver more training in foundation-level language, literacy and numeracy skills
  - train and support a more diverse student population, including 'second-chance' learners, students from low socio-economic backgrounds, students from non-English speaking backgrounds, Indigenous students, students with disability, and students in remote areas
  - engage in more flexible modes of delivery, including e-learning, online delivery and distance education
  - develop stronger ties to industry and engage in more employment-based delivery
  - adapt to overlapping boundaries with schools and higher education
  - undertake a greater volume of Recognition of Prior Learning and Recognition of Current Competency.

This chapter discusses the key factors that are likely to shape what will be expected of the Vocational Education and Training (VET) workforce in the future. Each of these factors is analysed in terms of its impact on the expected *capacity* of the VET workforce (how many workers will be needed and how much output they will need to produce), and their expected *capability* (the specific skills and attributes required of them to do their job well). This analysis attempts to identify the segments of the VET workforce that will be most affected by these factors. The implications for the VET workforce, discussed in this chapter, foreshadow the focus of chapter 8 (capacity) and chapters 9 and 10 (capability).

6.1 Demographic trends

Ageing population

Australia's working-age population (15 to 64 years) is forecast to fall from 68 to 60 per cent of the total population by 2050. In the same timeframe, the group of older Australians (aged 65 and older) is forecast to grow from 14 to 23 per cent of the population (Treasury 2010). The concurrent ageing of the population and reduction in the relative size of the labour force will have profound implications for the labour market. In turn, this will have an impact on the market for VET, and the VET workforce, as the volume and types of skilled labour that are required also change.

Population ageing heightens the supply-side need to replace the skills of workers retiring from the labour force, and also compensate for the shrinking relative size of the labour force (Skills Australia 2010a). These effects will intensify demand for training across the labour market, as many study participants have noted (Australian Nursing Federation, sub. 12; Chamber of Commerce and Industry Queensland, sub. 24; Department of Education, Employment and Workplace Relations (DEEWR), sub. 60; SA Department of Further Education, Employment, Science and Technology (DFEEST), sub. 54; Services Skills Australia, sub. 13; Skills Tasmania, sub. 29). While skill replenishment will be required across the economy, demand for additional skilled labour might be higher in industries characterised by older staff profiles. These include health care and social assistance, education and training, and agriculture, forestry and fishing (ABS 2010b). These industries are likely to experience relatively higher workforce attrition in the short to medium term, and, depending on their ability to attract new recruits, might have greater need to invest in the skills of their remaining workforces.

While noting that, within the VET sector, there is a replenishment of workers in older age-groups, the sector also faces a supply-side constraint as the overall labour force reduces in relative size. This will mean greater competition for workers which will affect the ability of VET providers to recruit.

The demand-side effects of the ageing population are driving strong requirements for skilled labour in health and aged care services in particular (Treasury 2010). The industry category of health care and social assistance services is forecast to be among the fastest-growing industries up to 2020 (Access Economics 2009). The most recent student data available already provide some evidence of accelerating growth in VET delivery in these fields. For example, from 2002 to 2009, health was

the fastest growing field in the publicly-funded VET system in terms of hours of VET delivery, and this is expected to continue (table B.10).

Immigration

Changes to immigration policy can affect demand for training, by affecting the size of the student population as well as the size of the skilled labour force. Recent changes in immigration policy have highlighted the sensitivity of the VET market to such policy settings.

Over the past decade, international students have been a rapidly growing cohort in the VET sector. From 2000 to 2009, the number of overseas students studying in VET institutions in Australia rose from about 30 000 to 230 000, with the bulk of this growth occurring at private sector institutions (table B.21). The rise of the international student market was particularly rapid from 2007 to 2009, with enrolments increasing by 45 per cent between 2007 and 2008, and by a further 33 per cent between 2008 and 2009 (Australian Education International (AEI) 2009). There were several possible drivers of this rapid growth. In part, it was likely to reflect a progressive relaxation of immigration policy, as students who completed courses in official 'Migration Occupations in Demand' and could demonstrate work experience were able to convert their student visas into permanent residency visas (Department of Immigration and Citizenship (DIAC) nd). This growth may also be attributed, in part, to VET providers' efforts to attract more international students, as a source of fee-for-service revenue in an increasingly commercial operating environment (The Gordon, sub. 9). Such growth inevitably places strains on the quantity and quality of the VET workforce.

The past year, however, has seen a decline in international student enrolments in VET. Compared to 2009, enrolments in 2010 fell by about 26 000 students, equivalent to around 11 per cent (AEI 2009, 2010b). This reversal in trend partly reflects several policy changes: a tightening of immigration policy announced in February 2010; the introduction of a new Skilled Occupation List; and changes to student visa requirements. Study participants have noted that the full effect of some of these policy changes on the VET sector might have not yet occurred, such that further falls in international students numbers are expected (DFEEST, sub. 54). The recent appreciation of the Australian dollar is also a factor contributing to reduced international demand (Australian Council for Private Education and Training (ACPET), sub. 50; AEI 2010a; The Gordon, sub. 9).

Fields of training that have typically attracted larger shares of international students include business and commerce, food, hospitality and personal services, and English

language courses (AEI 2010c; Studies in Australia 2010). As such, demand for training in these fields, and their associated trainers and assessors, can be expected to fluctuate in response to any future changes in immigration rates.

International students' share of the VET student population also has implications for VET workers' teaching and training practices. Many overseas students have different educational, language and pastoral needs from those of domestic students (ACPET, sub. 50; DFEEST, sub. 54; The Gordon, sub. 9; WA Department of Training and Workforce Development, sub. 26). For example, there is likely to be greater need for Registered Training Organisaions (RTOs) to provide English language tutorials and cultural awareness sessions (Joint TAFE Associations, sub. 48). The need to cater for international students also has implications for workers responsible for management, administration and student welfare in VET. For example, larger numbers of international students mean that more resources need to be allocated towards the compliance monitoring and progress reporting of overseas students, as required by DIAC and the Education Services for Overseas Students Act, and towards the provision of support services for international students (Joint TAFE Associations, sub. 48).

High variability in Australia's intake of international students and skilled migrants affects not only those workers responsible for designing, delivering and assessing training, but also managers, administration staff and general staff who provide support services for these workers. Workers employed at private providers, in particular, may be exposed to greater instability in demand for their services, given their stronger reliance on fee-for-service revenue from international students.

Aside from affecting the number of international students participating in VET, immigration policies also affect demand for training via changes in the number of skilled migrants joining the labour pool. Policies governing Australia's intake of skilled migrants were recently amended: the number of places in Australia's skilled migration program that were planned for in the 2008-09 Budget was reduced by 14 per cent in March 2009, and by a further 6 per cent in the 2009-10 Budget (DIAC 2010). Such changes could contribute to a higher demand for training the domestic labour force, to compensate for the reduction in skilled migrants.

6.2   Economic changes

Employment growth

According to modelling commissioned by Skills Australia, over the next 15 years employment across all industries is projected to grow, on average, by 1.5 per cent each year (Access Economics 2009).[1] When taking into account the need to replace retired workers, upskill existing workers and train workers for newly-created jobs, this projected future job growth is expected to require the delivery of 640 000 post-school qualifications per year, on average, up to 2025. Highlighting the contribution of the VET sector, around 343 000 of these qualifications need to be at VET level — made up of 113 000 Diplomas or Advanced Diplomas, 154 000 Certificates III or IV, and 75 000 Certificates I or II.

On the basis of its current delivery of around 350 000 qualifications per year — made up of around 50 000 Diplomas or Advanced Diplomas, 205 000 Certificates III or IV, and 97 000 Certificates I or II (NCVER 2010e) — the VET sector will be required to shift its current delivery of training towards higher level qualifications, in order to support this projected job growth. Consistent with this estimate, modelling undertaken for Skills Australia predicts that, based on current rates of VET participation, future demand for workers qualified at Certificate level will be met, but a shortage will be experienced for workers holding a Diploma or Advanced Diploma (Access Economics 2009).

Structural changes

There are numerous structural changes occurring across Australia's economy that will shape the market for skilled labour and, consequently, for training. Such changes include the continued growth of services and knowledge-based industries, technological advancements, the resurgence of the mining industry, and the heightened focus on environmental sustainability and 'green skills'.

Growth of services and knowledge-based industries

The growth of the services and knowledge-based industries, relative to the primary and manufacturing industries, has been occurring over many decades and is expected to continue. Services to finance and insurance, community services, and

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1 The cited figures are based on moderate aggregate growth conditions ('low-trust' scenario) which most closely matched actual economic conditions in 2010 (Access Economics 2009).

technical and computer services are projected to be among the fastest growing industries in the 15 years to 2025, while manufacturing and agricultural industries are projected to experience very low, if not negative, employment growth (Access Economics 2009). This structural change has important implications for the role of the VET sector since services and knowledge-based industries, when compared to primary and manufacturing industries, are more reliant on skilled labour as an input and generally require a different and more complex set of skills, with an emphasis on cognitive and interactive skills (Lowry et al. 2004).

VET enrolment patterns partly reflect this structural change. For example, from 2002 to 2009, enrolments in agriculture and environment-related studies fell by 26 per cent, while enrolments in food, hospitality and personal services increased by 30 per cent (table B.9). However, VET enrolment figures in other fields of studies related to services and knowledge-based industries — namely, information technology, management and commerce, health and education — plateaued or even fell during this time period. This suggests that demand for specific courses, and the associated training workforce, is difficult to forecast precisely on the basis of industry trends.

Technological change

Ongoing advancements in technology have led to higher demand for skilled labour and its associated training. With technological change continuing, workers across the labour market will be required to adapt and upgrade their technical skills, and the VET sector and its workforce will need to cater for this changing demand.

Technological progress will also continue to impact on the delivery of VET itself. Innovations in communication technology, in particular, will have significant implications for the way in which VET is delivered and assessed. Online and other remote modes of delivery will also alter the student profile, as a broader range of the population will be able to access training.

Study participants noted the need for the VET workforce to respond to new technologies:

> Some technological developments may impact directly upon the business of teaching/training and learning … These sorts of developments, if they occur at anything like the rate predicted, will place significant pressure on the VET workforce to upgrade their own IT and related skills. In fact many technological developments in industry will require a greater engagement with, understanding of and competence in the digital economy by the VET workforce. (IBSA, sub. 8, p. 6)

> The increased use of technology and the advent of new technologies, many of them as yet unknown, will drive a demand for training delivery via these media. The VET

workforce will need to keep pace with the general population as it continues to adopt these new technologies and it becomes more technologically savvy… [N]ew pedagogies and new skills will be required in the VET workforce. (Minerals Council fo Australia (MCA), sub. 23, pp. 10-11).

There is an expectation that all [VET] staff will become more digitally literate as digital media literacy continues its rise in importance as a key skill in every discipline and profession. (TVET Australia, sub. 56, p. 10)

Improvements and innovations in technology should facilitate the VET sector's ability to handle a higher volume of training, as noted by the Flexible Learning Advisory Group (FLAG) (sub. DR99). For example, online delivery and assessment methods can be used to expand the volume of delivery without necessitating a similar increase in the workforce or a lowering of quality standards.

Several participants drew attention to the large-scale technological change represented by the roll-out of the National Broadband Network (NBN) (DEEWR, sub. 60; FLAG, sub. DR99; Innovation and Business Skills Australia (IBSA), sub. 8; Joint TAFE Associations, sub. 48; TVET Australia, sub. 56 and sub. DR87). Faster speeds in internet connection will affect telecommunication and production practices across a wide range of industries. Other innovations, such as the development of bio-fuels and other alternative fuel sources, will alter the skill needs of certain industries more than others. For instance, Manufacturing Skills Australia (MSA) (sub. 22) identified a number of specific emerging technologies — such as the developments in fibre composite materials and hybrid and electric technologies — that are expected to significantly alter the skills needs of the manufacturing sector.

Some technological developments might be too costly for some training providers to access on their own. This could limit the VET sector's capacity to respond effectively to industry's needs, although, as noted in chapter 5, there are already examples of collaborations between VET providers and businesses which aim to address this issue.

While recognising the potential for technological advancements to improve the uptake of VET, the South Australian Training and Skills Commission (sub. 51) observed that face-to-face classroom learning will still be the preferred, and more effective, mode of delivery for some fields.

Growth of the resources sector

A major change in the structure of Australia's economy is the growth of the mining industry and the resources sector more broadly. Recognising the resultant growth in

demand for training, the Australian Government in 2009 established a National Resource Sector Employment Taskforce (NRSET). The taskforce was responsible for examining the extent to which the sector will experience skill shortages in the next decade, and for developing strategies to address any shortages expected to occur.

Modelling work by the NRSET supports the expectation that the resources sector will continue its strong growth (DEEWR 2010d). Although this growth is expected to lead to gaps in the supply of selected occupations, many of these occupations require higher-level post-school qualifications (for example, mining engineers). This supply gap should not, therefore, impose significantly greater pressure on the VET sector in terms of the volume of training demanded. Furthermore, the NRSET predicted that the resources sector, in aggregate, should not experience significant shortages in skilled labour since it employs a relatively small share of all tradespersons in the labour market (Karmel and Mlotkowski 2010).

Study participants representing the resources sector, however, contended that there are aspects of the VET sector that will come under pressure. Specifically, as noted in chapter 5, the MCA considers that the publicly-funded VET sector does not currently meet the needs of industry in terms of the consistency, quality, flexibility and responsiveness of the training provided (MCA, sub. 23). As the NRSET also acknowledged, such dissatisfaction could lead to more enterprises undertaking their own delivery of training. This would, in part, address calls by others for the resources sector to assume greater responsibility for the training of its future labour force, given that it takes on proportionally fewer apprentices than the share of tradespersons it employs (Karmel and Mlotkowski 2010).

A shift in delivery from the publicly-funded Technical and Further Education (TAFE) system to Enterprise Registered Training Organisations (ERTOs) would have significant implications for the VET workforce, given the existing differences in working arrangements between these types of providers and the types of workers who they attract and employ. For instance, as profiled in chapter 3, the non-TAFE sector — where ERTOs play a significant role — is less reliant on casual employment and typically employs lower-qualified and younger workers than the TAFE sector.

Members of the resources sector also noted that there is scope for improvement in training delivery in regional and remote areas, where most of their trainees are located. For example, the MCA advocated a greater use of on-the-job training for shift workers at remote locations, and a greater reliance on flexible delivery and assessment methods (sub. 23).

The resources boom has also affected the supply of VET trainers and assessors. Attractive labour market conditions in the resources sector have drawn workers out of the VET sector, as noted by the NSW Government:

> [S]trong growth in the resources sector has a negative impact on the recruitment of VET practitioners. When growth and boom times hit, working in the mining industry is more profitable than transitioning to a VET practitioner role. (NSW Government, sub. 57, p. 3)

The MCA (sub. 23) also acknowledged that the VET sector might find it hard to compete with the resources sector for workers, especially on the basis of remuneration. The negative impact on the supply of VET trainers implies that, even if demand for training in the resources sector does not intensify significantly, the VET sector might still experience difficulties delivering to that sector.

Focus on 'green skills'

A major structural change that will affect the training market and the VET workforce is the heightened focus on environmental sustainability across the economy. This has raised the importance of all workers attaining and implementing 'green skills' (DEEWR, sub. 60; IBSA, sub. 8). The endorsement of the Green Skills Agreement by the Council of Australian Governments (COAG) has had, and will continue to have, important implications for the sector (COAG 2009c). As outlined in chapter 4, the agreement requires the VET sector to include competencies in environmental sustainability, and to adopt national standards in sustainability, in its Training Packages and practices.

This requirement will impact on VET trainers and assessors who are responsible for designing and delivering training materials. Additionally, the VET sector will need to develop strategies that re-skill workers from vulnerable industries. Already there are indications that the sector is adapting to this change. For example, the TAFE Development Centre (TDC, sub. 18) recently created a green skills professional development program, Education for Sustainability, to support this objective.

All of the structural changes considered above imply that VET workers who are responsible for designing, reviewing and updating VET material need to be able to read the changing needs and practices of industry. Additionally, periods of rapid structural change create greater pressure for VET trainers and assessors to maintain their industry currency. The profound impact of structural change on industry practices also highlights the importance of effective industry advisory arrangements, to ensure that Training Packages are suitably designed and updated.

Cyclical fluctuations

As evidenced in the past, cyclical fluctuations in economic conditions impact on the demand for training. The link between economic fluctuations and demand for VET, however, differs between non-apprenticeship forms of VET, and apprenticeships and traineeships.

Non-apprenticeships

Demand for non-apprentice forms of training is generally found to be counter-cyclical (Karmel 2009). During periods of strong economic growth — translating into strong employment prospects and wage growth — prospective students have an incentive to switch to job-seeking and employment in place of studying or training. In addition, strong labour market conditions give existing workers less reason to try to secure their jobs by upgrading their skills. Moreover, during periods of strong demand, some employers might be less willing to give workers time off work to engage in training (Karmel and Rice 2011).

Offering evidence of the inverse relationship between economic growth and non-apprentice forms of VET, data on student applications for enrolment in tertiary studies (TAFE, higher education and other providers) show that unmet demand for tertiary places generally fell between 2004 and 2007 (coinciding with strong economic growth) before rising between 2008 and 2009 (coinciding with the global financial crisis) (table D.1). VET providers made similar observations:

> [T]he recent boom, which was characterised by low unemployment, record high [labour force] participation rates and high overtime levels, saw a decline in tertiary enrolments and unmet offers for workers to up-skill or re-train. (Polytechnic West, sub. 5, p. 4)

> During the recent economic downturn … demand from individuals looking to fund their own training increased. … [T]ypically this increased demand was as a result of individuals wanting to upskill as a type of insurance against what was projected to be a prolonged economic recession. (ACPET, sub. 50, p. 8)

In addition to an overall inverse relationship, there also appear to be shifts in demand for training away from particularly volatile industries during times of weak growth. For example, during the global financial crisis, employment in finance, manufacturing and real estate services declined by 4 per cent or more (Access Economics 2009). This coincided with a decline in participation in these fields of VET study: from 2008 to 2009, enrolments in management and commerce courses of publicly-funded VET institutions fell by 5 per cent, one of only three fields of study to experience falls (tables B.9 and B.10).

Given that some industries are concentrated in particular states or territories, or geographical regions, specific jurisdictions or regions can experience above-average fluctuations in demand for training over the course of the business cycle. The resources boom, for example, saw stronger growth in demand for training in Western Australia and Queensland, relative to the rest of Australia (WA Department of Training and Workforce Development, sub. 26).

Apprenticeships

In contrast to other forms of participation in VET, demand for apprenticeships and traineeships appears to be pro-cyclical (Karmel 2009; Karmel and Misko 2009). This is because, in part, apprenticeships and traineeships are ways for employers to secure skilled workers during times of increasing output demand and tightening labour market conditions, while there is less incentive for employers to invest in workers during periods of weak demand for their product. During the immediate lead up to the first wave of the resources boom, a pro-cyclical relationship was observed in the mining states of Western Australia and Queensland, where apprenticeship commencements accelerated (National Centre for Vocational Education Research (NCVER) 2010b). The data also confirm that the 2009 downturn in economic growth in Australia coincided with a fall in apprenticeship and traineeship numbers (Karmel and Misko 2009) and increasing rates of non-completion specifically due to job loss or redundancy (NCVER 2010b). International evidence similarly points towards a general pro-cyclical effect (Brunello 2009).

Apprenticeships and traineeships in some industries are relatively more sensitive to cyclical volatilities. For example, apprenticeship numbers in the metal, vehicle, electrical and building trades have been found to be particularly sensitive to labour market conditions. By comparison, apprenticeship numbers in food trades exhibit less cyclical behaviour, being driven by long-term trends in population growth instead (Karmel and Mlotkowski 2008; Karmel and Rice 2011).

The cyclical nature of apprenticeships has important repercussions for the economy's supply of skilled labour, with flow-on effects for the supply of VET workers. During an economic downturn, any lasting fall in the number of apprentices in the labour market will reduce the number of tradespeople in the labour force in the future (Karmel 2011). All else constant, this would result in a smaller pool of workers to eventually serve as trainers and assessors in the VET sector. The size of this effect, however, might not be as large as the drop in commencement numbers and rise in redundancies typically recorded at the start of an economic downturn. This is because periods of economic downturn also give rise

to higher rates of completions by apprentices already in the system. Additionally, in jobs where it is feasible to substitute workers for apprentices who have sufficient training, periods of economic downturn might see employers become more reliant on apprentices as a less costly source of labour (Karmel and Rice 2011). These various effects combine to moderate the net reduction in the number of apprentices and, hence, the number of potential future trade trainers and assessors.

Nevertheless, given the sensitivity of the apprenticeships sector to economic cycles, a recent report into the performance of Australia's apprenticeship system recommended that governments and industry take more action to stabilise apprenticeship numbers during economic downturns, thereby alleviating the risk of future skill shortages (Australian Government 2011a). Such actions would, by extension, instil greater stability in the VET workforce over the longer term.

An outline of other proposals for, and recent changes in, Australia's apprenticeship system is contained in box 6.1.

Box 6.1 **Recommended changes in Australia's apprenticeship system**

Although Australia's apprenticeship system does not fall within the main focus of this report on the VET workforce, it is a major influence on Australia's VET sector, with apprentices and trainees comprising about 25 per cent of all VET enrolments.

Recently, the Australian Government sought to raise the numbers of apprenticeships, especially in areas of skill shortages, by offering a range of financial incentives for both apprentices and employers. Skill shortages also prompted COAG to accelerate the transition from a system of time-based to competency-based completion of apprenticeships, in an attempt to lift the rate of completions (NCVER 2011b).

Changes in the apprenticeship system can affect the VET workforce in that, in some fields of training, the delivery of vocational skills via apprenticeships can ease demand for other forms of VET provision.

A recent report commissioned by the Australian Government (2011a), *A Shared Responsibility: Apprenticeships for the 21st Century*, identified some key challenges facing Australia's apprenticeship system. These included:

- tightening skill shortages in particular sectors, including traditional trades, compounded by declining commencements during the recent economic downturn
- poor rates of apprenticeship completions (at about 48 per cent)
- poor rates of investment in apprentices by employers
- a complicated administrative system
- productivity barriers due to the workplace relations system.

Box 6.1   (continued)

Some of these challenges, such as skill shortages, mirror the challenges facing the VET sector more broadly. Other deficiencies identified in the report, such as inadequate investment in apprenticeship training by employers, add to the pressures placed on other parts of the VET sector.

The Expert Panel report proposed a number of reforms to improve the quality of the system. Some of these recommendations reflect the trends occurring in the VET sector more broadly, such as:

- improved use of Recognition of Prior Learning and Recognition of Current Competency

- additional support for apprentices with specific challenges, such as those whose are Indigenous, are located in regional or remote areas, have disability, or have poor language, literacy and numeracy skills

- formal regulation of the quality of VET in schools

- promotion of competency-based progression

- government and industry intervention to promote stability in apprenticeship and traineeship numbers during economic downturns.

Other recommended reforms target issues specific to the apprenticeship system, including:

- government and industry intervention to promote stability in apprenticeship and traineeship numbers during economic downturns

- employer incentives focusing on areas with 'tangible and enduring value for the economy' in both traditional trades and newer areas such as community services, health services and information technology.

Overall, cyclical fluctuations in the labour market and demand for training broadly point to a need for the VET workforce to be sufficiently flexible and responsive to the changing conditions and needs of industry. Although there is a role for forecasting future industry conditions — which would assist the VET sector in its own workforce planning — such forecasts involve a large set of underlying assumptions and considerable uncertainty, making it difficult to predict industry- or occupation-specific impacts. This is discussed in chapter 7.

6.3   Skills policy agenda

Skills-deepening

As discussed in chapter 4, COAG is currently pursuing a 'skills-deepening' human capital agenda, with specific targets to increase the proportion of the population that holds a post-school qualification. The policy aims to lift the participation and productivity rates of the working-age population, as a way to mitigate the impact of population ageing and meet the need for a more highly-skilled labour force (Treasury 2010). The skills-deepening targets are typically more ambitious than any upskilling already occurring within the workforce as a result of the structural changes discussed earlier in this chapter.

There are indications that, over the past decade, some degree of skills-deepening has been occurring in relation to VET-level qualifications. From 2001 to 2009, the share of the working-age population holding a VET-level qualification increased only slightly (from 33 to 35 per cent), but with an ongoing shift towards higher-level qualifications (ABS 2009b). Over that period, the share of the population holding a higher-level VET qualification (Certificate III or IV, Diploma or Advanced Diploma) increased by around 5 percentage points, while the share holding a qualification at Certificate I or II level declined by around 3 percentage points. This trend was complemented by an increase in the attainment of university-level qualifications, confirming that the population's average educational attainment has been increasing.

Enrolment figures in VET reflect this trend. Within the publicly-funded VET system, the share of students enrolled in Certificate III or higher qualifications increased by 14 percentage points between 2000 and 2009. While the share enrolled in Certificate I or II qualifications has been steady, the share enrolled in non-award or bridging courses (and other non-Australian Qualifications Framework (AQF) qualifications) decreased by 15 percentage points over the same time period (table B.7).

Modelling commissioned by Skills Australia indicates that, on the basis of current patterns of job growth and educational enrolments, the number of Australians holding a post-school qualification will grow by 2.6 per cent per year from 2010 to 2025 (Access Economics 2009). According to Skills Australia (2010a), an even higher rate of growth in tertiary enrolments will be required if the COAG targets are to be achieved. This would imply that, relative to current levels, an even higher volume, or average level, of training will be expected of the VET sector.

The achievement of the skills-deepening policy will require more VET trainers and assessors who are suitably skilled in delivering higher levels of training. Compared to the existing VET workforce profile, it is likely that some providers will need to employ a larger share of trainers and assessors who hold higher-level qualifications themselves, since it is a requirement of the Australian Quality Training Framework (AQTF) that trainers and assessors hold a qualification at least equal to that which they are delivering. This might be more applicable to the non-TAFE sector since, currently, trainers and assessors in the TAFE sector hold a higher average level of qualification than those in the non-TAFE sector (table C.16).

Foundation-level language, literacy and numeracy skills

The delivery of foundation-level language, literacy and numeracy (LLN) skills in VET is generally directed towards adult learners who have not gained these skills in the school system and for migrants with limited English ability, although it is not exclusively targeted at these students. A number of factors point towards an increasing focus on the delivery of LLN skills by the VET sector.

The Australian Government's skills-deepening agenda, discussed in the previous section, aims to improve rates of VET participation among members of the community who would otherwise be disengaged from education and training, as a way to lift labour force participation and encourage social inclusion. The low initial skills base of many members of this group mean that their participation in VET should begin at the foundation levels of LLN. Feedback from study participants highlighted VET's role in delivering these skills, and the implications for the VET workforce:

> The focus on … LLN support will continue to be critical, driven by the need to continuously develop skills in Australia's workforce … It is known that to increase the participation in the workforce by low SES groups, well specified pathways from Certificates I and II with integrated literacy and numeracy support is essential. Hence there will be a continuing strong demand for VET LLN practitioners. Also, all VET practitioners and professionals will need to have knowledge of the LLN approaches required to improve student outcomes. (Charles Darwin University, sub. 40, p. 2)

> It is very likely that demand for VET from learners from disadvantaged backgrounds will increase in the next five to ten years … It is also likely that a significant proportion of these students will lack well-developed literacy and numeracy skills. This will place increasing demands on the VET teacher/lecturer workforce, some of whom would benefit from support to lift their own foundation skills levels and who perhaps have little expertise in teaching these skills to their VET students. (WA Department of Training and Workforce Development, sub. 26, p. 2)

Additionally, as the average skill requirements of jobs in the economy rise, there is a greater need to invest in the LLN skills of the population. Members of industry have recognised this need (Australian Industry Group (Ai Group), sub. 14; IBSA 2010d). As one study participant noted:

> [I]t is likely that the growth in the economy and the requirements of social policy will see an increased effort to incorporate a much greater proportion of the population in education and training over the next decade. Language, literacy and numeracy issues will figure more prominently for the VET workforce as a consequence. (IBSA, sub. 8, p. 6)

As some indication of the need to invest in Australia's LLN skills base, the ABS Adult Literacy and Lifeskills Survey (ALLS) in 2006 indicated that almost half of the working age population had literacy and numeracy skills below the proficient level needed to participate fully in society (Shomos 2010).[2] The Industry Skills Councils (ISC) point towards these data, and similar findings drawn from industry research, to contend that the delivery of LLN skills in VET needs to increase both in volume and quality (ISC 2011).

The move towards greater provision of LLN necessitates that VET trainers and assessors be equipped to provide these courses:

> IBSA anticipates that [LLN] will require increased commitment of resources and intellectual effort to ensure that the VET workforce as a whole is equipped to some and varying degrees to deal with these issues. (IBSA, sub. 8, p. 6)

The delivery of LLN requires VET trainers and assessors to possess a different set of skills. Participants have advised that this includes a greater knowledge of teaching theory and practices than required in the delivery of more vocationally-oriented courses, and the ability to engage with students whose detachment from the workforce might have made them reluctant to learn (Ai Group, sub. 14; Jobs Australia, sub. 44; Skills Australia, sub. 59). However, while the delivery of LLN skills requires specialist teaching abilities, this role does not need to fall to LLN experts only. LLN skills can also be delivered effectively in the context of non-LLN-specific courses. Study participants have commented that the provision of LLN skills should not be considered as an 'add-on' to VET's mainstream delivery, but an integrated part of its services (Australian Education Union, sub. DR101).

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2 This threshold differs from the 'minimum' level of literacy and numeracy skills required to participate in society, which explains why the ALLS reports a higher proportion of people with low skills, compared to other surveys (such as the National Assessment Program — Literacy and Numeracy (NAPLAN) and the Program for International Student Assessment (PISA)).

While the VET workforce should prepare itself for a greater intake of students with LLN deficiencies, some have expressed concerns that only a small proportion of people who need assistance with their LLN skills will present themselves to the appropriate education and training providers (IBSA 2010d). This is partly because these people might be reluctant to reveal their need for assistance, or do not recognise their need. This risk suggests that, at least for those in need who do enter the VET sector, the VET workforce might also need to be better prepared to identify their LLN deficiencies and propose remedial action (Victoria University, sub. 11).

Improving accessibility

Flexibility of delivery

The increased provision of VET via flexible modes of delivery is a key way in which the sector is improving accessibility for students. Flexible delivery encompasses, among other features, the use of online (or e-learning) delivery and distance education. These modes of training rely heavily on technology-based delivery methods, but might also entail, for example, teachers travelling to remote locations to conduct training and assessment.

While largely facilitated by advances in information and communication technologies (ICT), the increased use of flexible delivery in VET responds to the objectives of the sector and governments. Flexible modes of delivery allow access by a broader range of students, including students in remote and rural areas, and those who face difficulties studying on-campus, such as students with family or other carer responsibilities or full-time jobs. One participant noted that the roll-out of the NBN, in particular, is expected to increase demand for the delivery of flexible training options (FLAG, sub. DR99).

Members of the VET workforce expressed a strong awareness of the impact of technological advances on the sector and its use of flexible delivery:

> The critical trends in technology influencing the VET sector are related to increasing client demand for flexible learning options, the expansion of broadband networks and advancements in mobile technologies … The use of technology will impact teaching delivery methods through the adoption of technology-based methods such as online (self-paced) and virtual training. There is a strong possibility that courses/units will increasingly be delivered entirely in a technology-based format. (Joint TAFE Associations, sub. 48, p. 12)

The use of ICT in the delivery of education and training is already significant. Recent data show that online instruction was used in the delivery of around

40 per cent of VET qualifications, and computer disks or CD-ROMs were used in the delivery of nearly 30 per cent of VET qualifications (Productivity Commission estimates based on unpublished data from ABS 2009f). These delivery methods were relatively more common at the higher levels of VET qualifications. There are indications that flexible modes of delivery will increase in use. For example, the South Australian Government is aiming to double the use of e-learning in VET by 2012 (DFEEST, sub. 54), and in a survey of 3600 VET students, almost half said that the availability of e-learning influenced their choice of course while 90 per cent wanted e-learning to be a component of their course (ACPET, sub. 50).

An increased reliance on flexible modes of delivery will require VET trainers and assessors to be proficient in the appropriate technology. They also need to know how to incorporate technology in their training and assessing practices in an effective way. This was noted by several study participants:

> As the demand for flexible training continues to grow, so too does the need for practitioners to possess high-level skills that will optimise learner experiences and deliver quality outcomes. There is an expectation that practitioners will not only know how to use the technologies but how to integrate them into teaching practice in an innovative way. (FLAG, sub. DR99, p. 2)

> There is a changing focus on teaching styles that work in an online or flexible environment and there is a demand for different teacher training for new delivery styles or methods. Higher level skills will be needed to use technology in a transformative and innovative way for learning and assessment. (TVET Australia, sub. 56, p. 10)

An additional consideration for trainers and assessors responsible for delivering VET via distance education is the need to keep students engaged during non-contact time and to cater for the particular needs of students in isolated locations.

Employment-based delivery

Employment-based delivery enables workers to invest in training without leaving their worksite. As some study participants have noted, this feature is particularly advantageous for workers who have high costs or difficulties travelling to the location of the VET provider (Australian Institute of Welfare and Community Workers, sub. DR77). This might be the case for workers who are located in regional and remote areas or work night-time shifts, for example. Another advantage of employment-based delivery is that it enables VET to form closer ties with industry and ensure that training is more relevant to the actual workforce requirements.

There are trends signalling an increased prevalence of employment-based VET delivery. Between 2000 and 2009, this mode more than doubled its share of hours

of VET delivery (table B.23). Despite this upward trend, some members of industry argued that current rates of employment-based delivery are below industry's expectations:

> A major concern of Ai Group in relation to the VET sector and the VET workforce is the relatively small amount of training delivery in the workplace. Campus-based delivery remains by far the largest form of delivery and only fourteen per cent of delivery occurs in workplaces (excluding apprentices and trainees). Industry has consistently and strongly stated its preference for work-based training and this statistic demonstrates that the VET sector is not adequately responding to industry needs. (Ai Group, sub. DR88, p. 2)

The Western Australian Government has a target to increase the proportion of workplace delivery from 27 per cent in 2008 to 40 per cent by 2012 (WA DET 2009).

Given these trends, VET trainers and assessors need to continue building productive ties with industry and become increasingly flexible in terms of times and locations of training delivery, as noted by some study participants (Ai Group, sub. DR88; Construction and Property Services Industry Skills Council (CPSISC) sub. 46). The trend towards more employment-based delivery also has implications for the type of skills required of VET trainers and assessors and the work arrangements in place in the sector, as discussed in chapter 8.

Changing student profile

In addition to catering to the skill needs of industry, the VET sector serves an important role in catering to the education needs of students who have a higher potential for disadvantage or marginalisation within the broader education system. For instance, the VET sector is designed to deliver education to students who have not achieved the standards expected in the school system or cannot be adequately accommodated by that system. The role of the VET sector, in this respect, helps to shape its student profile.

As the sector pursues policy agendas to improve rates of educational attainment, increase the provision of foundation LLN skills, and broaden its accessibility through more flexible modes of delivery, the sector's student population will become increasingly diverse. Reflecting the changes canvassed in this chapter, the VET sector overall will need to cater for a growing number of students with the following characteristics:

- students enrolled in higher-level qualifications

- 'second-chance' learners who have not succeeded in secondary school but who undertake school curricula as adult learners (for example, enrolling in pre-employment courses in the Adult and Community Education sector)

- students from low socio-economic backgrounds, who tend to experience poorer rates of educational attainment and employment outcomes

- migrants and students from non-English speaking backgrounds

- Indigenous students, many of whom are likely to have had limited prior school education

- students from remote areas, who might have had poorer prior learning and training opportunities

- students with disability, who might have also been disadvantaged in the mainstream school system.

IBSA identified VET's diversifying student profile as a key consideration for the sector's workforce:

> The real issue is the extent to which the VET workforce is currently prepared and capable of enrolling significant proportions from a much wider cross section of the population. It raises important questions about the skills inherent in the VET workforce and what more needs to be done, for example, to increase the level of skills in identifying and addressing needs in language, literacy and numeracy and how to engage and train greater proportions of Indigenous people. (sub. 8, p. 4)

Trends already point toward moderate growth in the share of VET enrolments made up of students with a potential for disadvantage. Between 2000 and 2009, in the publicly-funded VET sector: the share of Indigenous students in VET increased from 3.0 to 4.4 per cent; the share of students with disability increased from 3.6 to 5.9 per cent; and the share of students from non-English speaking backgrounds increased from 11.8 to 15.3 per cent (table B.19).

A broadening student profile suggests that, in the future, the VET sector will require workers who are suitably equipped to accommodate these students' personal needs and cultural practices, and address their potential past learning difficulties. Research suggests that VET workers require specialist skills to cater for students with the potential for disadvantage (Griffin and Nechvoglod 2008; Miller 2005; Miller and Nguyen 2008).

Currently, some groups are under-represented in the VET workforce, relative to the student population. For example, while 4.4 per cent of all students in the publicly-funded VET system are Indigenous, only 1.3 per cent of all VET trainers and assessors identify as such (tables B.19 and C.22). The response of the VET sector might also involve employing more workers who associate with these groups

to serve as positive role models and mentors to students. This could potentially improve these students' training outcomes (Polytechnic West, sub. DR81).

Some members of the sector suggested that the VET workforce would benefit from 'group teaching' models, whereby traditional teachers are complemented by other staff providing 'wraparound' services to support students who experience disadvantage or marginalisation (Skills Australia 2010a; WA Department of Training and Workforce Development, sub. 26). As an example, greater job-seeking assistance could be offered to students with characteristics associated with worse employment outcomes.

Data indicate that the VET participation rates of students with a higher potential for disadvantage are not sustained in the higher education sector, which can contribute to their worse labour market outcomes (Wheelahan 2010b). This suggests that VET workers need to promote articulation pathways from VET to higher education among these students in particular.

6.4 Changing VET systems and structures

Changes in funding

The VET sector has experienced major reforms in funding sources and allocation mechanisms over recent years, as discussed in chapter 4 and appendix E. Such change is set to continue, as reflected in the policy approaches of some jurisdictions and in the proposed recommendations of the Bradley Review (Australian Government 2008). While some of the specific changes to the VET sector's funding systems discussed in this section are still at proposal stage, some are already underway in certain jurisdictions.

Diversifying funding sources

As discussed in chapter 4, a history of major funding reforms since the 1990s has seen the publicly-funded VET sector progressively reduce its reliance on government funding and seek alternative revenue sources, including fee-for-service income from individual students, employers and enterprises (Ferrier et al. 2008). Although the shift towards a more competitive and commercialised training market has been occurring for the past two decades, the trend has gathered momentum under the impetus of recent government policies, and has especially accelerated with the expansion of the international student market. Among public providers, total revenue from government increased by 38 per cent from 2005 to 2009, while

fee-for-service income increased by about 67 per cent (NCVER 2009d). As a component of fee-for-service income, international student fees increased by more than 100 per cent during this time period, highlighting the growing importance of this student cohort as a funding source (NCVER 2009d).

More contestable funding and demand-driven purchasing

The ongoing move towards greater contestability of funding and demand-driven purchasing of VET will mean that both public and private providers will need to engage in more commercially-oriented business activities, as they enter into competitive tendering for funds and market themselves to their student and industry clients. Within the workforce, this will place greater importance on managerial, entrepreneurial, negotiation, risk-analysis and marketing skills. While the VET sector already has professionals with such skills, it may require proportionally more of these workers in the future (Charles Darwin University, sub. 40; IBSA, sub. 8).

Study participants have commented that a more contestable funding environment is expected to improve the productivity of the publicly-funded VET sector, as long as the changes are implemented properly and quality standards of delivery are maintained (South Australia Training and Skills Commission, sub. 51). Managers, administrative staff and other VET workers involved in funding arrangements will need to be adept at adjusting to this new environment. The new procedures should also not be overly burdensome.

Another possible outcome of a more contestable funding market is that it creates greater uncertainty within the sector and its workforce. This might, in turn, require greater flexibility in VET work arrangements and forms of employment, as discussed in chapter 8.

Student contribution schemes

One of the proposed changes to VET's funding system is the greater use of student contribution schemes which, when involving income-contingent loans, enable students to defer their payment towards the costs of their training until they reach a given income threshold. Greater use of such arrangements would be expected to help reduce any potential negative effect of low socio-economic status on students' accessibility to VET.

Moves to increase the share of training costs borne by students, noted in chapter 4, could reduce student-driven demand for VET relative to current growth rates in student demand, or relative to the share of demand for training that is driven by

industry. An increase in VET fees by 10 per cent has been estimated to lead to a decrease in the number of students enrolled by 0.6 per cent (Access Economics 2004).

Overlapping sectoral boundaries

VET-in-Schools (VETiS) is a growing segment of the VET sector (AiG, sub. 14; DEEWR, sub. 60; WA Department of Training and Workforce Development, sub. 26). About 447 000 students aged 15 to 19 years participated in VETiS in 2009 (NCVER 2009f).[3] At the other end of the qualifications spectrum, the delivery of higher education qualifications in VET has also been expanding. From 2005 to 2009, the number of students enrolled in a Bachelor Degree, Graduate Certificate or Graduate Diploma in the publicly-funded VET sector increased from 2900 to 3900 (NCVER 2009f).

Given that most schools now offer VET as part of their senior school certificate (AEU, sub. 34), and with the Bradley Review into Higher Education recommending closer articulation between the VET and higher education sectors (Australian Government 2008), the VET sector's scope of delivery is expected to continue to widen. In light of this trend, there is a heightened need to acknowledge that the delivery of VETiS and higher education qualifications requires a different set of skills to the delivery of traditional vocational qualifications (Charles Darwin University, sub. 40; John Mitchell and Associates, and JMA Analytics, sub. 37). Although it is difficult to distinguish and, therefore, quantify the number of VET workers who are involved in VETiS and higher education delivery currently, there are expectations that a larger number of suitably qualified VET workers will be required in the future to deliver these types of courses. This is likely to create a need for VET workers to be offered more opportunities to upgrade or diversify their professional skills.

More broadly, an increasing focus on education-related policy goals, expressed in the policy agendas of both tiers of government, might be expected to increase the demands placed on Australia's education system overall. As a consequence, VET providers might face greater competition for workers from other education sectors when attempting to attract and retain staff. The extent of this competition will depend on the substitutability and mobility of workers across the different education labour markets. This is most likely to occur in fields of delivery that overlap between the sectors, such as the provision of foundation-level skills in LLN

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3 The growth rate of VETiS over time is difficult to precisely calculate, due to changes in data collection methods in some jurisdictions.

(delivered in both schools and VET) or in the range of higher-level VET or lower-level higher education qualifications that are offered by both types of tertiary institutions. There are suggestions, however, that the extent of this mobility between different education sectors or types of institutions might be limited (DEEWR, sub. 60).

Inter-sectoral competition might also stem from changes to the higher education funding system. The removal of enrolment caps in 2012, and declining international student enrolments, might intensify competition for students between the VET and higher education sectors (Moodie 2011). Universities that experience low demand from students may look towards expanding into VET-level qualifications, thereby attracting students away from VET-only providers. VET workers themselves might be drawn towards dual-sector providers, depending on the competitiveness of wages and working conditions.

Recognition of Prior Learning and Current Competency

Recognition of Prior Learning (RPL) and Recognition of Current Competency (RCC), as discussed in chapter 5, allow experienced workers to have their skills and knowledge recognised in attaining a training qualification. Providers must assess whether a worker is competent to the standards prescribed by the relevant Training Package (Joint TAFE Associations, sub. 48). RPL and RCC in VET are intended to foster efficiency within the system, by reducing the need for workers to repeat or undertake training for skills that they have already acquired in previous training or on-the-job (COAG 2006). This frees up resources, including VET trainers and assessors, to be directed towards more efficient uses.

Although RPL might not be suited to all types of training (South Australian Training and Skills Commission, sub. 51), there appears to be a push for its greater implementation. For example, the Western Australian Government aims to lift the number of RPL learning outcomes by 33 per cent between 2008 and 2012 (WA DET 2009). Some VET providers reported that they intend to make RPL and RCC the normal, rather than the alternative, mode of entry for many programs in the future (The Gordon, sub. 9). There is evidence that the use of RPL and RCC has already been increasing, albeit from a low level. Between 2000 and 2009, the share of subject completions attributed to RPL has risen from 2.7 to 4.9 per cent (table D.2).

Following the completion of a three-year COAG project, RPL processes were recently amended to make the system more streamlined and simplified (DEEWR, sub. 60). Although there are some reservations about the extent of this impact

(South Australian Training and Skills Commission, sub. 51), this change is expected to see the use of RPL expand further.

Predicted growth in RPL and RCC will inevitably create a need for more assessment activity by the VET workforce. Study participants have noted that the use of RPL and RCC requires assessors to hold a different, more advanced set of skills than required in traditional assessment methods, as considered in chapter 10 (The Gordon, sub. 9; John Mitchell and Associates, and JMA Analytics, sub. 37; Joint TAFE Associations, sub. 48).

Although there are many examples of RPL and RCC being applied appropriately, there are also reports that some skill recognition processes have not been consistently or fairly applied (Manufacturing Skills Australia, sub. 22). These occurrences imply a need for the sector to invest further in the capacity of its trainers and assessors to undertake RPL and RCC to an adequate standard.

In accordance with the study's Terms of Reference, this chapter has considered the factors that are likely to influence the current and future demand for, and supply of, the VET workforce. These factors include: demographic and immigration trends, economic and structural change; shifts in skill requirements, given the agreed COAG outcomes; and changing VET systems and structures.

FINDING 6.1

Over the medium term, in the context of a tightening labour market, the VET workforce will be expected to deliver a greater volume of training, increase the quality and breadth of its training, cater for a more diverse student population, and operate under a more contingent and contestable funding system.

7 Workforce planning and data

Key points

- Securing the appropriate number and mix of workers requires planning and implementation strategies to attract and retain the best people.

- Workforce planning is useful at the local, system-wide (jurisdictional) and national level.
  - However, demand-driven funding, more volatile numbers of international students and the quest to meet the Council of Australian Governments' education targets will all add to the current complexities surrounding planning.

- Effective policy strategies and workforce planning require comprehensive detailed national data.
  - Although Technical and Further Education (TAFE) administrative collections exist, they are incomplete, disparate and not widely used.
  - There is currently no regular reporting of workforce data for the private Vocational Education and Training (VET) sector.

- VET providers are already subject to significant reporting burdens. These should be minimised by rationalising and consolidating data collections on VET activity.
  - Reducing current reporting burdens would offset any additional burdens from introducing or extending workforce collections.

- For several years, the National Centre for Vocational Education Research (NCVER) has advocated the need for a standard for VET workforce information.
  - Developing and applying a data standard for the VET workforce will lead to consistency in definitions and measurement in future data collections.

- The Ministerial Council for Tertiary Education and Employment should engage the NCVER to develop a comprehensive instrument with which to identify the VET workforce.
  - In consultation with key stakeholders, this instrument should be developed as soon as practicable, and focus on measuring and describing the workforce.
  - The instrument should be designed to impose a minimal response burden on providers.

This chapter addresses the study's Terms of Reference relating to planning and data, by providing an analysis of workforce planning activity in the sector, and underlying data needs.

7.1 Identifying the need for workers through workforce planning

At any point in time, the size of the Vocational Education and Training (VET) workforce is determined by the interaction of market forces and government intervention. On the supply side, individuals choose whether or not to work in VET, based on their preferences and the characteristics of VET jobs relative to other jobs on offer. On the demand side, VET providers decide on the appropriate number and characteristics of employees they require, based on their student enrolments, preferred delivery profile, production process and relative input costs. But governments also play a role through policy settings, funding arrangements, immigration rules and industrial relations frameworks.

Identifying the preferred number and mix through workforce planning

From the perspective of employers, securing their preferred number and mix of workers, in the right locations, both now and in the medium term, requires planning and then implementing strategies to attract, train and retain the most appropriate workers. According to the Chamber of Commerce and Industry Queensland:

> Workforce planning activities must ensure that sufficient numbers of well-qualified vocational education and training professionals are available to meet the emerging needs of business and industry … (sub. 24, p. 6)

Principles for workforce planning for the teaching profession, as outlined by the Committee for the Review of Teaching and Teacher Education (2003, p. 95), are broadly applicable to VET workforce planning:

> Principles for coherent workforce planning include: successful recruitment and retention of high quality teachers with the required skills and expertise; understanding and analysing existing teacher motivations and intentions; ensuring rapid and strategic intervention and responses to changing needs; identifying and retaining the best; reducing costs associated with teacher attrition, replacement and retraining; and monitoring and evaluation.

Further, according to the Minerals Council of Australia, key elements of a VET workforce plan should include:

- Characteristics of the current workforce, [in] both public and private [Registered Training Organisations (RTOs)] and embedded within enterprises.

- Identification of the current and future needs of industry, including the potential impact of economic cycles [and structural changes], the ageing workforce and new technologies.

- Strategies to fill the gaps. (sub. 23, p. 13)

In the VET sector, workforce planning of the kind described above occurs at the local, jurisdictional and national levels. It is undertaken by providers, governments and other stakeholder groups, individually and, at times, in a coordinated effort.

As noted by the Australian National Training Authority (2004a), many elements of workforce planning can only be addressed at the local level by individual providers. These include matching workforce capability to employment trends, and shaping recruitment, retention and retraining strategies to meet organisational objectives. In a study by Smith and Hawke (2008), 75 per cent of Technical and Further Education (TAFE) institutes indicated that strategic workforce planning was their organisation's first or second priority in strategic human resource management. These authors also found that strategic workforce planning was regarded as first or second priority by 47 per cent of private RTOs surveyed.

In New South Wales, each TAFE institute (with an average employment base of 2300) develops a workforce plan. For example, the Sydney Institute (of TAFE) has a strategic workforce plan that:

- … ensures identification of mission critical groups whose supply is vital to ensure achievement of objectives;

- … engages stakeholders in advising workforce (treatment) strategies which seek to build a sustainable workforce, as well as attract and retain talent and strengthen a capable workforce … (NSW Government, sub. 57, p. 16)

In addition to efforts by individual RTOs or enterprise facilities, there is scope for coordinated, overarching approaches to planning. This can be undertaken at the system-wide (jurisdictional) or national level (box 7.1). For example, some factors with direct and indirect implications for the VET workforce might be outside the geographic scope, planning timeframes or spheres of influence of individual providers. These factors include: broad economic, demographic and social change; specific pressures on the training system as a result of changing demands from industry; and the process for 'producing' VET trainers and assessors. According to the Minerals Council of Australia:

A comprehensive national plan is the best means of identifying gaps and areas for development and to ensure that investment in VET sector workforce development is most closely related to the needs of the economy. (sub. 23, p. 13)

But this is not easy to achieve:

> … the difficulty in producing accurate, integrated national VET sector workforce development plans should not be underestimated. It is a huge undertaking to do this from the bottom up, that is, aggregating enterprise (provider), industry and regional workforce development plans into national plans. (Minerals Council of Australia, sub. 23, p. 8)

Box 7.1   Participants' comments on workforce planning

At the jurisdiction level:

> Each jurisdiction has a role to play in assessing the future VET workforce needs, to ensure there will be an adequately skilled workforce to develop the State's future workforce and to support industry growth areas. At this level, planning needs to be informed by robust analysis of key factors influencing future demand and supply. It also needs to take account of leakages (of skilled workers) between education sectors and between VET and industry. (SA Training and Skills, sub. 51, p. 15)

At the national level:

> Workforce development plans for the VET workforce, of different types and degrees, are in place in most states and territories but not at the national level. With VET regulation moving to a national basis, bringing a greater need to clarify national standards for trainers and assessors similar to those defined for school teachers, it will be difficult for the national government to continue to remain one step removed from VET workforce development. (John Mitchell and Associates, sub. 37, p. 15)

> … strategies at the individual provider level need to be part of a co-ordinated plan across the sector … This recognises there are common workforce challenges facing public and private providers … and a national workforce development plan would allow for a full picture of the factors influencing the sector as a whole to be developed and guide the skill needs of the future VET workforce. (ACTU, sub. 31, p. 9)

Key influences on VET workforce planning

Governments are the major purchaser of VET in Australia (chapter 2). Their decisions about VET funding are based on: skills demand forecasts; state-based and provider market research; formal and informal industry advice; and broader social and economic policy objectives. This body of information feeds into strategic planning at the system-wide level (Keating 2008a; Misko and Halliday-Wynes 2009). It also benefits individual providers within a jurisdiction, because government policy priorities and funding allocations give VET providers an indication of the volume and type of training that governments intend to purchase from the system.

In most jurisdictions, the allocation of public training funds still occurs via the negotiation of purchase agreements between providers and State Training

Authorities. These agreements detail the amount and type of training the state is prepared to purchase from each provider, and reflect the providers' own commercial considerations (Misko and Halliday-Wynes 2009). TAFE institutes put significant effort into strategic planning to support their purchase agreement bids, of which workforce planning is a key component (VTA 2008).

Private RTOs have a lesser role in publicly-funded training — about 11 per cent of public training funds were allocated to the non-TAFE sector in 2008 (chapter 2). Contestable funding accounts for a minor part of their operations and their main areas of activity are in fee-for-service and non-accredited training (Keating 2008a).

Workforce planning is likely to become more difficult

As described in chapter 4, several jurisdictions, including Victoria and South Australia, are moving away from the traditional purchaser–provider funding model, to a system where funding follows the student.

Demand-driven funding, combined with greater competition between public and private providers, creates strong incentives for producing the outputs sought by the client group (students, with governments as principle funders). However, it also introduces uncertainty on the quantity of demand for any particular product offering in the publicly-funded VET market (much as it has always been for the privately-funded sector). Unlike in previous periods, TAFE providers in Victoria are no longer guaranteed funding on an annual basis.[1] Payments for student contact hours now often occur monthly, and in arrears of student numbers taught.

Uncertainty on the demand side can lead to uncertainty on the supply side. Community Colleges Australia (sub. 53) argued that demand-driven funding in the form of competitive tendering erodes job security and makes staff retention more difficult. It added:

> … the open tender process for education delivery … does create challenges for offering contracts to VET tutors. At times … delivery of programs in short timeframes can be difficult when there are not necessarily a 'waiting' group of VET tutors with availability to teach immediately. The community colleges are not in a financial or operational position to have staff employed with their organisation if they are not undertaking work in their relevant field of expertise. (sub. 53, p. 6)

Adding to the uncertainty in some cases, the number of international students fluctuates in response to a wider range of external factors including exchange rate

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[1] South Australia is also considering a demand-driven funding model (appendix E).

relativities and immigration policies. This impacts on the demand for VET trainers and assessors, both in terms of capacity and capability.

A further development that will impact on the workforce is franchising arrangements, 'where universities franchise TAFEs or private providers to deliver parts of courses on a fee-for-service basis' (Ross 2010). These are likely to become more common in the quest to meet Council of Australian Governments' higher education targets. Workforce plans will need to factor in the supply of additional VET staff, who will increasingly need degrees and higher degrees (Joint TAFE Associations, sub. 48) to meet this demand.

Skills forecasting

At both the jurisdictional and national level, the VET sector draws on detailed skills forecasts, such as those commissioned by Skills Australia (Skills Australia 2010a) and several state governments. However, accuracy falls as the projection horizon extends, and as the level of disaggregation of skills and regions increases (Richardson and Tan 2007). Indeed, even 'the best of the forecasting models do only a moderate job of projecting total output and employment for a number of years into the future' (Richardson and Tan 2007, p. 9).

Skills Australia has recently initiated a consultation process, to map ways for the VET sector to respond to the current and future challenges it faces. This exercise, due to report to the Australian Government in May 2011, has benefited from the views of a range of interested parties about an appropriate role and profile for the VET workforce (Skills Australia 2010a). Such consultation assists with identifying major current and anticipated VET risks and requirements, and allow the VET sector to more confidently put in place timely strategies to better meet Australia's training priorities.

7.2   Improving the workforce database

As mentioned in chapter 3, and confirmed by several participants, there is no detailed national data collection for the VET workforce — a prerequisite for effective planning at any level (box 7.2).

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| Box 7.2   **Participants' comments on the need for improved VET** |
| **workforce data** |
| |
| Good data on the VET workforce are a valuable tool: |
| |
| … sound workforce planning … relies on robust data sources. It is critical that |
| organisations such as the NCVER have access to data from administrative data |
| systems … (South Australian Training and Skills Commission, sub. 51, p. 15) |
| |
| It is critical that the characteristics of trades teachers are understood to |
| ensure that a workforce development plan for the VET workforce adequately |
| reflects the needs of [the mining industry]. (Minerals Council of Australia, |
| sub. 23, p. 8) |
| |
| But good data are not available: |
| |
| … there is no coherent national picture of the VET workforce which would allow |
| providers, regions, States and Territories to benchmark on the characteristics. |
| (Joint TAFE Associations, sub. 48, p. 10) |
| |
| Currently there is a lack of basic information about the size and nature of the |
| VET workforce in Australia. The currently available published data is inadequate |
| for workforce planning purposes. It is unclear what is currently and potentially |
| available from administrative (eg compliance) datasets. This should be |
| investigated as a matter of priority. Demographic data to inform workforce |
| planning is required, as well as data on the qualifications profile and |
| capability of providers. (South Australian Training and Skills Commission, |
| sub. 51, p. 4) |
| |
| However, data could be improved through the work of existing stakeholders: |
| |
| RTOs require timely, sector specific information to develop strategic plans, |
| identify future training needs and predicted staffing requirements. Industry |
| intelligence suggests that RTOs do not have an adequate forum to engage industry |
| to establish skill requirements over the short term. [Industry Skills Councils] |
| through their extensive sector specific industry networks and training |
| organisations links, can provide a bridge for the provision of targeted labour |
| market information if funded in this role. (EE-OZ Training Standards, sub. 20, p. 6) |
| |
| Better communication between bodies that have an interest in the VET workforce |
| can aid data collection, such as Innovation and Business Skills Australia, [State |
| Training Authorities], the Australian Education Union, universities and RTOs that |
| train VET teachers/trainers, the Australian Vocational Education and Training |
| Teacher Educators' Colloquium (AVTEC), the Australian Institute of Training and |
| Development. The data collected through work undertaken by these bodies should |
| be nationally shared and collated. (Service Skills Australia, sub. 13 (attachment), |
| p. 91) |
+--+

Further, as the market becomes more demand-driven, 'commercial pressures … may mean the size of the VET sector is constantly changing in line with market forces' (DFEEST, sub. 54, p. 11). Moreover, Service Skills Australia noted that 'the large proportion of part-time and casual [trainers and assessors] makes record-keeping very difficult for large providers' (sub. 13 (attachment), p. 91). Both these issues would need to be addressed in the collection of data seeking to measure and describe the VET workforce.

Data requirements

The lack of publicly available VET workforce data for planning purposes does not mean that data on the VET sector more generally are not being collected. In addition to information provided for (re-)registration and audit purposes, ongoing data collection and reporting requirements for VET providers can be extensive. For example, under the Australian Quality Training Framework (AQTF), RTOs must each year provide data on students, courses, activity and completions to state training authorities.[2] RTOs must also report against AQTF National Quality Indicators on competency completions, learner engagement and employer satisfaction.[3] There are also state reporting requirements (which can be up to monthly in frequency and can vary between jurisdictions) on student activity and completions. There are further requirements associated with apprenticeships and traineeships. Some, if not all, of these requirements weigh more heavily on smaller providers, who generally lack the information systems of larger providers.

In addition, there are also numerous requests for RTOs to participate in surveys conducted by the Australian Bureau of Statistics (ABS), the Department of Education, Employment and Workplace Relations (DEEWR), the National Centre for Vocational Education Research (NCVER), other VET stakeholder groups and researchers. Adding to the response burden of the sector, the same data are sometimes collected by a number of different bodies, especially where Commonwealth and state responsibilities overlap. For example, a recent inquiry into regulation in Victoria noted that TAFEs in that state face duplicate requirements from DEEWR and Skills Victoria, governing FEE-HELP and student statistics (Victorian Competition and Efficiency Commission (VCEC) 2011).

However, few of these collections have a workforce component. In the case of Enterprise RTOs (ERTOs) and private providers, workforce information is typically only requested as part of ad hoc surveys — there is currently no regular reporting for their segment of the VET workforce. In the future this will change, as the Australian Council for Private Education and Training (ACPET) proceeds to extend its collection of benchmarking information, which includes workforce data, from private higher education providers to private RTOs (ACPET, sub. DR98).

The TAFE sector is more data-rich than the private sector, with administrative collections containing workforce data at both the provider and jurisdictional level

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[2] These data are collected according to the Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS), to ensure consistency across providers. The data are then combined by the NCVER to form the National VET Provider Collection.

[3] These Quality Indicators are currently under review by the NCVER.

(appendix C). However, they are incomplete, disparate and not widely used or disseminated. Key information, such as whether an employee is a trainer or a manager and what type of teaching qualifications (if any) he or she has, is either inconsistent or missing entirely.

Several submissions identified the need for consistency in any data collected on the VET workforce:

> A national workforce data collection would need to be underpinned by an appropriate VET workforce data standard to ensure consistency and maintain data quality. (NCVER, sub. DR69, p. 1)

> Problems identified include numbers not being reported consistently or comprehensively and discrepancies across different studies. Even in the TAFE sector there is no regular consistent national collection of workforce data. (ACTU, sub. DR80, p. 16)

> The NSW Government supports the creation of an instrument to support workforce planning in the VET workforce … it is important that this instrument's response requirements are standardised across private and public providers, within a framework that accounts for varying contexts. (NSW Government, sub. DR82, p. 1)

> Ai Group notes … the lack of consistent national data concerning the VET workforce. (Australian Industry Group (Ai Group), sub. DR88, p. 5)

> … any new instrument … [should use] common definitions so that aggregated data is reliable and jurisdictional data is comparable. (VTA and TDA, sub. DR94, p. 6)

The Commission understands that efforts by the NCVER to develop a data standard for the VET workforce have extended over several years. Recently, as part of their current review of the AVETMIS Standard for VET Providers, the NCVER has recommended that 'further work be undertaken to define a Standard for VET Workforce Information (separate from the Standard for VET Providers) and that an appropriate method for collection be considered subsequent to this initial work' (NCVER 2010j). Current advice from the NCVER is that more work is required on defining the purpose of a VET workforce standard and appropriate data collection arrangements, as there will be differences in the approach depending on whether a national picture is needed or information is required at finer levels of detail and location.

Development of a workforce data standard to underpin VET workforce data collections would ensure consistent definitions and measurement. It would clarify the boundaries of the VET workforce and the groups within it. It would also support efforts to improve the capacity and capability of the workforce. For example, better information about the qualifications and industry currency of trainers and assessors could inform strategies for their professional development.

FINDING 7.1

Consistent national data about the size and characteristics of the VET workforce are lacking. TAFE administrative collections containing workforce data exist, at both the provider and jurisdictional level, but they are incomplete, disparate and not widely used or disseminated. There is currently no regular reporting of workforce data for the private VET sector. Lack of quality data is proving to be a significant obstacle to effective policy making and workforce planning at any level, and to efforts to improve the capacity and capability of the workforce.

RECOMMENDATION 7.1

In consultation with other VET stakeholders, the National Centre for Vocational Education Research should develop a National Standard for VET workforce data collection as soon as is practicable.

Data burdens

Governments can potentially play an enabling role in workforce planning, through the ongoing collection of consistent, accurate and detailed VET workforce data. However, collection of such data should 'not burden the sector and … [perhaps fit] with human resource management systems already in place at the provider level' (Joint TAFE Associations, sub. 48, p. 11).

Several participants identified the need to reduce reporting burdens and rationalise existing collections.[4] For example, in a joint submission, Victorian TAFE Association (VTA) and TAFE Directors Australia (TDA) commented that '[c]urrent provider reporting requirements are costly' (sub. DR94, p. 6). Private providers are also subject to 'administrative and cost burden' (ACPET, sub. DR98, p. 4). Technical and Vocational Education and Training Australia (TVET) suggested that 'a reporting mechanism that is mostly automated, electronic and linked to relevant data repositories will reap longer term gains and lessen provider opposition to the collection' (sub. DR87, p. 5).

However, in view of the existing data collection and reporting requirements mentioned earlier, it would seem that these criticisms mostly relate to data on students and activity rather than workforce.

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[4] The recent NCVER review of the AVETMIS Standard also acknowledged the issue of reporting burdens in relation to workforce data (NCVER 2010j). In particular, '[s]takeholders also argued that such a collection would require significant resources and system enhancements and present workload issues for data providers' (NCVER 2010j, p. 13).

How reporting burdens are viewed by providers can also be influenced by the perceived usefulness of the data collection, at both a 'system' level, and for their organisation specifically. At the moment, private providers 'see little or no value in the reporting that they are forced to undertake' (ACPET, sub. 50, p. 8). The Commission supports their view that, in relation to future attempts to collect data:

> … a clear rationale and public benefit statement on why data is required, what purposes its collection would serve and how it would be used to benefit and improve the quality of training provision needs to be made before any steps are taken to collect data … on the size and characteristics of their workforce. (ACPET, sub. 50, p. 8)

In its draft inquiry report on Victoria's regulatory framework, VCEC suggested, in relation to TAFEs:

> Feedback reports could aid in TAFE benchmarking, market analysis, developing long-term strategies or other decision making. The perception of data collection and reporting requirements being excessive might be lifted if TAFE institutes were to gain more from submitting reports. (VCEC 2011, p. 70)

Any future data collection specific to the VET workforce will inevitably increase reporting burdens for most providers. However, given the current extensive data requirements relating to students and activity, the Commission considers that the collection of workforce data would only lead to a small increase in the reporting burden, especially where data are already collected by RTOs as part of good human resource management practice. Moreover, the workforce data collection burden could be offset by a rationalisation or consolidation of existing student and activity collections, as recommended by VCEC in relation to Victorian TAFEs (VCEC 2011). Rationalisation could also be an outcome of changes to National Quality Indicators reporting requirements, currently being reviewed by the NCVER for the National Quality Council (NQC).

FINDING 7.2

Current reporting burdens are already extensive for Registered Training Organisations. Any future workforce data collection is likely to increase these burdens only marginally. Moreover, this increase could be offset by a decrease in overall data burdens from rationalising and consolidating existing VET activity collections.

Possible models of data collection

VET workforce data could be collected through an administrative or a survey approach (appendix C). McGregor (2010) outlines the key considerations and options for a national VET workforce collection, in terms of implementation time,

costs and workforce coverage. Relative to a survey, McGregor argues that an administrative collection would:

- require a longer implementation period as providers incorporate the required changes to their existing data systems

- have high upfront costs (to be split between providers and the collection agency) but low ongoing costs (after the implementation period)

- be compulsory, and could be extended beyond TAFEs through, for example, data provision becoming a precondition of receiving government funding.

With an administrative data collection, the reporting burden falls entirely on employers, whereas for survey data it might fall on employers, employees or both, depending on the survey method.

Any instrument used to collect the data should focus on measuring the size of the workforce and describing its key policy-relevant characteristics, such as those referred to in chapter 3. This would allow periodic monitoring of key demographic and economic trends in the workforce, such as ageing, workloads, pay, and employment arrangements.

Any workforce data collection would need to go beyond staff associated with publicly-funded VET, to also capture those involved with other VET activity, including fee-for-service delivery to both domestic and international students, enterprise training (not just by ERTOs) and off-shore activity.

Given their experience in collecting data on the VET effort, the Commission considers that the NCVER would be a suitable agency to collect, analyse and disseminate workforce data, as they are seen as 'independent and competent and acceptable' as a data collection and storage agency, including by private providers (Smith et al. 2010, p. 25). The Ministerial Council for Tertiary Education and Employment should, as soon as practicable, engage the NCVER to develop a quality instrument in this area.

This exercise should involve active consultation with key stakeholders, regarding the design of the collection instrument, to balance data needs and usefulness against data burdens. To this end, several participants have volunteered their involvement:

> We would be happy to be involved in this review, which would also offer the opportunity for [the] ABS to take into account the needs of the sector and maximise alignment of data items in relevant national surveys. (ABS, sub. DR70, p. 1)

> Service Skills Australia strongly advocates that external input and validation be sought. It is our view that this needs to occur through a transparent consultation process

incorporating input from a range of industry stakeholders and other invested parties. (Service Skills Australia, sub. DR73, p. 5)

Providers and jurisdictions will need to be consulted throughout the development process on a range of issues, including privacy concerns, appropriate data protocols and agreement as to how the data will be used and published. (NSW Government, sub. DR82, p. 1)

[The Enterprise RTO Association (ERTOA)] would ask that detailed discussion is held with ERTOA on behalf of its members before any additional work is done regarding this recommendation. (ERTOA, sub. DR91, p. 13)

ACPET would seek to have input to the development of the instrument regarding data sought, definitions, relevance and ease of administration and application. (ACPET, sub. DR98, p. 4)

Implementation of this new instrument might need to be staged, beginning with collecting basic workforce data that are already available from providers' systems, before these systems can be upgraded to provide more detailed and comparable information.

Some analyses of the VET workforce could benefit from the use of longitudinal (panel) data. In this respect, the *Medicine in Australia: Balancing Employment and Life* (MABEL) survey of doctors (Joyce et al. 2010) conducted by the University of Melbourne and Monash University, and funded by the National Health and Medical Research Council at a total cost of $2.1 million over five years, provides a possible model for gathering longitudinal workforce data about a discrete workforce.

Several initiatives currently underway could contribute synergies to the 'better data' objective. First, the National VET Data Strategy is currently considering aspects relevant to workforce data collection. As part of the Strategy, the Enhancing Survey Data project reviewed existing surveys and identified information gaps. Another Strategy project, the VET Data Portal project, will gather all administrative data on accredited training activity, and might additionally include workforce information.

Second, according to the National Vocational Education and Training Regulator Bill 2010 (Cwlth), the forthcoming National VET Regulator (NVR) will have the power to 'collect, analyse, interpret and disseminate information about vocational education and training' and to 'publish performance information, of a kind prescribed by the regulations, relating to NVR registered training organisations' (NVR Bill, p. 80). The Commission understands that the NVR will be using a range of data to inform its risk analysis and auditing functions.

Third, there might also be synergies with data collection for the forthcoming *My Skills* website, which will be designed to provide information about VET options and providers. Although there is, as yet, insufficient information about its exact

content, the website could include a profile of the VET workforce as an extension (in much the same way as the *My School* website does for school staff).

RECOMMENDATION 7.2

The Ministerial Council for Tertiary Education and Employment should engage the National Centre for Vocational Education Research (NCVER) to develop a comprehensive instrument with which to identify the VET workforce as soon as practicable. This instrument should focus on measuring and describing the workforce. The NCVER should consult with key stakeholders so that the instrument does not unduly increase the response burden for providers. Implementation of this new instrument might need to be staged, to allow providers to adjust to the new requirements. Data from the collection could support the risk analysis and auditing functions of the forthcoming National VET Regulator.

8 Ensuring workforce capacity and efficiency

Key points

- There does not appear to be a widespread shortage of Vocational Education and Training (VET) workers.
  - However, employers face a challenging recruiting climate in parts of the sector, with some providers relying on longer hours of work from existing staff or having to compromise on the quality of new recruits.

- Shortages can be linked to statutory wage structures in the Technical and Further Education (TAFE) sector that take no account of the relative scarcity of industry skills being sought, given that trainers and assessors are 'dual professionals'. As a consequence, TAFEs need to rely on industry allowances to attract and retain some VET trainers and assessors with particular industry skills, while others might be paid more than is necessary.

- High administrative loads, partly due to regulatory burdens, hinder retention of VET workers.

- There is considerable variation across jurisdictions in working-hours requirements for trainers and assessors in TAFEs, and these requirements differ considerably from those for other industries.

- Casual employment can increase the flexibility of the VET workforce to meet after-hours, short-term and specialist demand. However, this flexibility might be limited where restrictions on the use of casuals by TAFEs apply.

- More managerial autonomy for TAFEs to link performance with pay, set wages and engage people on the most appropriate employment arrangements for their specific needs would help with recruiting and retaining staff.

- Older workers, workers in other industries and Indigenous workers will be potential sources of VET workers in the future. Impediments to their recruitment should be removed.
  - The VET sector can provide support for potential Indigenous workers through Reconciliation Action Plans and cadetships to undertake teaching qualifications.
  - This would also encourage Indigenous students to progress from study into the workforce and, in time, return to the VET sector as trainers or assessors.

As identified in chapter 6, there will be an increase in the demand for VET, and VET workers, in the next decade. There is a risk of future shortages of VET workers, unless recruitment and retention strategies are adopted now and over the medium term. However, with an increasingly tight overall labour market, as a result of population ageing and the resources boom, adequate VET workforce capacity will also need to rely on efficiency gains from the workforce. The importance of reform was outlined by the Australian Industry Group (Ai Group):

> Our economic prospects will deteriorate significantly if our current performance [in the delivery of a range of skills] is not improved. This will require bold reform, particularly around the capacity and capability of the Vocational Education and Training Workforce. (sub. DR88, p. 2)

This chapter addresses a number of the study's Terms of Reference. In section 8.1, comment is provided about the VET workforce's productivity. Current and future supply of the VET workforce are examined in section 8.2. Section 8.3 looks at groups of workers likely to be targeted for the future VET workforce. In section 8.4, the factors influencing the efficiency of the VET workforce, including work arrangements and industrial relations settings, are investigated. Overall, this chapter reviews impediments to capacity and recommends strategies to achieve an appropriate number of VET workers, working as efficiently as possible, so that future delivery challenges may be met.

The chapter should be read in conjunction with chapters 9 and 10, which address the capability dimension of the VET workforce, that is, the adequacy of the skills and knowledge held by VET workers that determine their effectiveness, as individuals or as groups.

8.1 Labour productivity is important for capacity

For the 'production' of VET services, Registered Training Organisations (RTOs) employ a diverse range of workers, in conjunction with other inputs such as infrastructure, equipment and intellectual property. Workers represent about 70 per cent of the cost of total production inputs in the VET sector (chapter 1). The size and quality of the labour input have a central role in the quality of outcomes that arise from the sector's output.

By altering the proportions of labour and other inputs, and organising the production process more efficiently, RTOs might be able to produce a given number of completing students with the right skills and other education-related attributes using fewer inputs (or assist more students using the same quantity of inputs).

In this study, the main focus is on the relationship between the labour input and the outputs from the sector. The rate at which the efforts of workers are translated into VET services is known as labour productivity and measures one form of efficiency, termed productive efficiency. This is the context in which the term 'efficiency' is used in the remainder of this chapter.

Measurement of labour productivity in the production of education is notoriously complex. For this reason, the Australian Bureau of Statistics (ABS) refrains from calculating this statistic. However, internationally, there have recently been important advances in measuring labour productivity in various education and training sectors. The Commission has relied on some of these advances to produce a range of experimental estimates of labour productivity in the publicly-funded VET sector in Australia, between 2005 and 2009 (appendix D). These estimates should be interpreted with caution, as they are sensitive to the choice of methods and assumptions. Nonetheless, all the variants computed by the Commission indicate that labour productivity of the publicly-funded VET sector improved steadily from 2005 to 2009, even after adjusting for changes in the quality of training delivered (appendix D). That labour productivity has increased does not imply that it has reached optimal levels. Possible sources of further efficiency gains are examined later in this chapter.

8.2   Factors affecting attraction and retention

Efforts to attract and retain workers affect capacity through labour supply and productivity. Shortages of VET workers can indicate attraction and/or retention problems in the sector. Key factors that influence attraction and/or retention, according to participants, are:

- wages and salaries
- hours of work
- work arrangements
- professional standing
- career pathways
- administrative load.

After a discussion of staff shortages, these attraction and retention factors are examined.

Are there staff shortages?

There does not appear to be a widespread labour shortage affecting the overall VET sector. However, some participants reported shortages of particular skills, in particular regions or in parts of the VET sector (box 8.1). These shortage areas can be grouped into:

- skills that are valued by industry, particularly due to the resources boom (mining, building, construction, electrical engineering) or population ageing (nursing, aged care)

- specialised skills (including Indigenous education, literacy and numeracy and e-learning)

- skills in regional and remote locations

- skills in non-teaching areas, such as management, human resources, information and communication technologies or VET compliance systems.

This picture of shortages in selected areas aligns with results from a 2010 survey of employers in the VET sector.[1] That survey reveals an active but challenging recruitment effort in the VET sector (table C.45). Almost two-thirds of providers surveyed were recruiting trainers and assessors, most in an attempt to expand their workforce. However, some difficulties were evident — overall, 21 per cent of recruiting providers did not fill all their vacancies, confirming the existence of shortages in the market for VET workers. Irrespective of whether vacancies were filled, 63 per cent of providers reported having difficulties recruiting trainers and assessors.

Twenty-one per cent of recruiting providers compromised on the skills sought from new recruits in order to fill their vacancies, and 5 per cent of those employers hired new recruits with none of the skills they were looking for. The most common skill deficits were teaching qualifications (63 per cent of providers who compromised), followed by industry currency (37 per cent). Survey results indicate that private RTOs, in particular, have a higher readiness than TAFEs to recruit workers who do not initially meet all the requirements of their job description. This might be a reflection of the greater intrinsic flexibility of private providers. However, it might also, in limited cases, reflect a preparedness to settle for a lower-quality standard of delivery (chapter 5).

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[1] It also aligns with the November 2010 Department of Education, Employment and Workplace Relations (DEEWR) Internet Vacancy Index for Vocational Education Teachers, which was high (and had been increasing), relative to other occupations. Similarly, the DEEWR Skill Shortage List rates this occupation as 'difficult to recruit for nationally' (Neville, I., DEEWR, pers. comm., 14 December 2010).

Box 8.1   **Participants' comments on VET sector staff shortages**

Participants indicated that there are shortages in some vocational areas:

VET providers often struggle to recruit suitably qualified and skilled trainers, this is particularly an issue in emerging technology areas. Periods of skills shortages and the strong demand for skills from the mining and construction sectors mean that VET providers … have difficulty attracting and retaining staff. (Ai Group, sub. 14, p. 7)

… VET workers have moved to the minerals sector in response to the skilled labour shortages experienced in the recent boom. (Minerals Council of Australia, sub. 23, p. 12)

Areas like the trades and in particular those that are in highly paid industries, such as the mining industry, present on-going difficulties in attracting people to VET. (Joint TAFE Associations, sub. 48, p. 29)

… in times of skills shortage, most prevalent of late in areas like the trades, it is increasingly difficult for the system to recruit staff. (WA Department of Training and Workforce Development, sub. 26 (attachment 3), p. 2)

It is very hard to find good trade teachers and there is a huge shortage as we speak. (Australian Education Union (AEU), sub. 34, p. 54)

Difficulties have been experienced in attracting/retaining staff in high demand/growth areas such as: nursing; aged care; Indigenous education; literacy/numeracy; horticultural/ agricultural; engineering/design/drafting; mechanical and electrical engineers; plant and heavy vehicle mechanics; mining engineers; marine engineers; master mariners; electrical line worker and cable jointing trainers; electrical instrumentation teachers; management/ leadership teachers; and staff in specialised disciplines, e.g. HR practitioners, accountants, skilled ICT staff. (Joint TAFE Associations, sub. 48, pp. 28–9)

In particular regions:

[VET] providers sometimes struggle to find appropriate applicants for positions, particularly in rural areas and industry areas in which the industry workforce is experiencing a skills shortage and consequently wages are high, e.g. mining, electrical. (Erica Smith, sub. 39, p. 2)

… in regional/rural areas … there is already a shortage of VET professionals. (Community Colleges Australia (CCA), sub. DR104, p. 3)

Significant VET labour and skills shortages already exist in rural and remote areas of Australia. (Health and Community Services Workforce Council, sub. DR85, p. 5)

… worsening skill shortages for regional [Victorian] TAFE providers … (Joint TAFE Associations, sub. 48, p. 9)

And of particular types of VET workers:

In building the capacity and capability of the VET Workforce we recommend [encouraging] Indigenous trainers and assessors to address this shortage in the anticipation of increasing the engagement of and outcomes for aboriginal candidates. (NSW Community Services, sub. 38, p. 3)

During the economic peak of 2007/08 it was increasingly difficult to program block training due to shortages in lecturing staff. (Polytechnic West, sub. 5, p. 4)

… research conducted by JMA Analytics has revealed a critical shortage of practitioners at the level of VET Learning and Assessment Specialists. (John Mitchell and Associates, sub. DR102, p. 12)

When faced with recruitment difficulties, Adult and Community Education (ACE) providers and Enterprise Registered Training Organisations (ERTOs) were more likely than other VET employers to compromise rather than leave positions unfilled. Among those providers with unfilled vacancies, the staff worked longer hours to meet the demand for training in 48 per cent of cases.

Indigenous trainer and assessor shortages

As noted in chapter 3, approximately one per cent of trainers and assessors and two per cent of all workers, in both the TAFE and non-TAFE sectors, identify as Indigenous, which is close to Indigenous workers' representation in the labour force. However, Indigenous workers are under-represented in the publicly-funded VET workforce, relative to the proportion of Indigenous students in that sector (4.4 per cent of students, according to Nechvoglod et al. 2008).

The imbalance between Indigenous representation in the student body and the VET workforce is a cause for concern, because:

> … the case in relation to Indigenous students is a special one. Here, identity is fundamental, and the VET sector must do a lot more to ensure that Indigenous learners and potential learners see their own people engaged in every aspect of VET service delivery. (National VET Equity Advisory Council (NVEAC), sub. 58, p. 3)

As the number of Indigenous VET students is likely to continue to grow (chapter 6), the current imbalance will expand unless steps are taken to increase the number of Indigenous VET workers.

A number of study participants supported efforts to increase the number of Indigenous trainers and assessors:

> Overall, the increasing lack of foundation skills in students suggests that the VET sector will need to [among other things] … encourage, recruit and support more Indigenous trainers. (WA Department of Training and Workforce Development, sub. 26, pp. 2–3)

> Based on the analysis of the nature of the VET workforce compared with the attributes desired by industry, learners and the practitioners themselves, [work by Service Skills Australia suggests that] … there may need to be more attention paid to diversity in the VET workforce — particularly to teachers/trainers who are Indigenous ... (Service Skills Australia, sub. 13, p. 3)

> There is a need for more Indigenous workers [and workers from other equity groups] … to work as VET practitioners. (NVEAC, sub. 58, p. 6)

What role do wages and salaries play?

One key influence on the number of people willing to work in the VET sector is the level of remuneration on offer, relative to other industries or occupations that are also looking to employ skilled workers (box 8.2). Trainers and assessors who are truly dual professionals can choose between teaching in VET or working in industry. If wages in VET are below wages in their particular industry, then the higher-quality trainers and assessors will be able to secure higher wages by working in industry. This also means that the average quality of the trainers and assessors remaining in VET will fall.

Comparison with non-education industries

The latest ABS data on employee earnings and hours (ABS 2010e) show clear differences between the hourly earnings of VET trainers and assessors, and the earnings of workers in a selection of comparator (non-VET) occupations (figure 8.1).[2]

Permanent or fixed-term VET trainers and assessors earn less per hour than do structural steel construction workers and drillers, miners and shot firers. Unlike the base wages of employees in other occupations, the wages of VET trainers and assessors are usually not dependent on their area of delivery. Therefore, the hourly wage of the average VET trainer or assessor is used in these comparisons.[3]

In some other occupations, the gap is reversed. Figure 8.1 illustrates that permanent and fixed-term VET trainers and assessors earn more than corresponding employees working as tourism and travel advisors, aged and disabled carers and nursing support and personal care workers.

Casual VET trainers and assessors earn significantly more per hour than do casuals in the other occupations represented in figure 8.1. This difference, in part, reflects the fact that the hourly rate for casual employees often includes an allowance for

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[2] Non-VET occupations have been chosen to represent realistic alternatives for some, but not all, groups of VET practitioners. For example, practitioners with a Certificate IV in Tourism may consider working as a tourist information officer to be a realistic career option. However, the reverse may not be true for a VET practitioner delivering tourism training, given the need for a TAE40110 Certificate IV in Training and Assessment (TAA) to teach, unsupervised, in the VET sector.

[3] Some sources of bias may remain, due to differences in average seniority between VET employees in a given field and industry employees in the same field.

preparation and marking (Victorian TAFE Association (VTA) 2009 and table 8.3).[4] Also, casuals in most occupations tend to earn an hourly rate premium in lieu of leave entitlements.

Box 8.2   **Participants' views on VET sector salaries**

Many study participants cited inadequate VET sector salaries as a factor that adversely affects the attractiveness of the VET sector:

> … trade teachers and potential trade teachers are being enticed to work in the resources sector by salaries 30% higher than a teacher's wage ... (ACTU, sub. 31, p. 8)

> Workers in the minerals industry are very well remunerated and the VET sector may not be able to compete on salary alone. (Minerals Council of Australia, sub. 23, p. 12)

> Areas like the trades and in particular those that are in highly paid industries, such as the mining industry, present on-going difficulties in attracting people to VET. (Joint TAFE Associations, sub. 48, p. 29)

> When growth and boom times hit, working in the mining industry is more profitable than transitioning to a VET practitioner role. (NSW Government, sub. 57, p. 3)

> In WA, the current funding model for publically funded [RTOs] provides for an average salary of about $68,000 (for a Grade 5 Lecturer). This does not provide for much flexibility when considering the average wage being paid to workers in the resources and the building and construction sectors in 2008 was $142,532 and $89,232, respectively. … During 2008/09, wages growth in the construction (8.9%) and mining (7.1%) industries was significantly higher than the VET sector where lecturer salaries generally increased annually by the CPI, i.e. between 3.0% and 3.6%. (Polytechnic West, sub. 5, p. 3)

> Executive salaries are pegged for public service relativity which can be a barrier to employing the right person for the job. (The Gordon, sub. 9, p. 16)

Some participants, however, pointed to areas where VET salaries are on par with those on offer in industry:

> … remuneration received in the VET sector — for full-time workers — is comparable to that received by workers in the tourism and hospitality industry. (Queensland Tourism and Industry Council, sub. 4, p. 3)

> The Australian [computer] games sector pays below general industry wages, as many people are passionate about games and are willing to work for less than the market rate their skills could demand. Therefore, experienced people face low barriers in terms of opportunity cost in moving to teaching as wages are comparable. (Dr Robert Dalitz, sub. 10, p. 3)

However, areas were identified where VET salaries are higher than those that can be expected in related occupations or industries:

> The level of remuneration and quality of conditions within the VET workforce varies depending on the type of industry. In some areas such as beauty therapy, hairdressing, childcare and other low paying industries, these are attractive. (WA Department of Training and Workforce Development, sub. 26, p. 4)

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[4] No data are available on the actual amount of time casual VET trainers and assessors spend preparing and marking.

Figure 8.1
Figure 8.1   Total earnings per hour, VET trainers and assessors and selected comparator occupations, 2010[a,b,c,d]
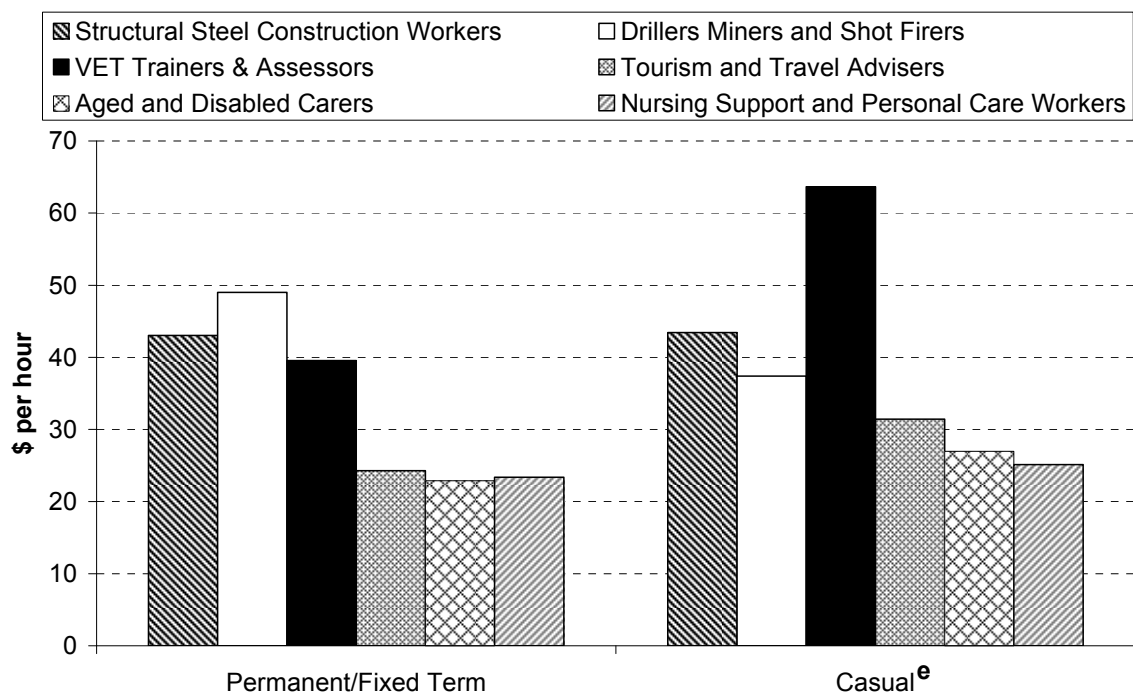
a Total earnings measure ordinary time earnings plus overtime earnings. **b** Non-VET comparator occupations are possible alternatives to VET teaching, based on trainers and assessors' qualification fields. They have been selected to illustrate that VET teaching and assessing can pay a higher rate per hour than some occupations, but a lower rate than others. These comparisons should not be taken to imply that all trades pay more and all services less than VET training and assessing. **c** Occupational earnings are compared with the average for all VET trainers and assessors, since their earnings do not vary by field of teaching. However, VET trainers and assessors in a particular area might earn more or less than the average, due to differences in the occupational structure within a field. **d** These numbers are indicative only and the standard errors on some could be high. **e** Hourly earnings for casual VET trainers and assessors can include an allowance for up to half an hour of additional time taken up by duties associated with teaching that might not be included in their reported hours worked. This allowance might account for part of their higher hourly earnings, relative to other occupations, but the size of this effect is not known.

Source: Productivity Commission estimates based on unpublished data from ABS (2010e).

That some VET trainer and assessor shortages persist despite the relative attractiveness of casual wages in the sector, suggests the existence of other disincentives, such as job insecurity. The issue of casual employment in the VET sector is taken up again below.

Wage relativities between VET and industry do not remain constant and lead to either periodic, or potentially persistent, shortages in some areas:

> In the course of a business cycle, there can be varying degrees of competition for workers between industry and the VET sector. During a 'boom', expanding industries pay higher wages to lure additional workers. This may change the pay relativities between VET workers and their industry counterparts, making VET a less appealing

option. Alternatively, during an economic slowdown, workers may be shed from industry and find VET teaching a more stable option. (DEEWR, sub. 60, p. 36)

In relation to TAFE specifically, shortages persist despite the use by some institutions of 'industry allowances'.

TAFE Agreements are silent on the issue of allowances, typically specifying that individuals are 'paid no less than the rate appropriate to their classification [as specified in the Agreement]' (*Victorian TAFE Teaching Staff Multi-Business Agreement 2009*, p. 15). As a result, some TAFEs make discretionary payments to some staff, over and above the base remuneration listed in the relevant agreement.

Additional payments of this type are found in the higher education sector, where universities often pay a salary loading to attract or retain certain categories of staff. In most cases, payments are justified on the basis that significantly more attractive external labour market conditions apply to certain occupations or skills. Salary loadings are reviewed periodically.[5]

The AEU expressed its opposition to this approach:

> The AEU position is that industrial Awards and Enterprise Agreements should provide for skill based career paths with wage rates set to attract and retain the highest quality workforce and remains opposed to the currently unregulated, ad hoc and highly idiosyncratic 'system' of 'over award' payments. (AEU, sub. DR101, p. 13)

The Commission's analysis of trainer and assessor pay in a Victorian TAFE institute shows that not everyone receives industry allowances, and that the incidence and amount, as a share of salary, vary across areas of delivery (table 8.1) and staff level (not shown). Allowances paid by this institution can increase an individual's pay by up to 47 per cent. The relative value of allowances, across areas of delivery, suggests that they are used by TAFEs to attract or retain individuals with skills in demand.

The payment of allowances goes some way to overcoming staff shortages. However, the persistence of shortages in some areas might be because agreements put a floor under the lowest wages that TAFEs are able to pay, which means that the funding of allowances is limited by overall funding envelopes.

If TAFEs could set trainer and assessor wages to better reflect wages paid in industry, they would be able to offer higher wages to those in high-demand areas, funded in part through lower payments to those in areas where vacancies are easily filled.

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5 These payments do not affect the underlying position classification as '[i]t is not appropriate for market forces to influence the classification of the position which is determined by work value criteria and standards' (Australian National University 2011).

Table 8.1 Industry allowances to Level 2, fixed-term trainers and assessors in a Victorian TAFE, 2010[a]

Per cent

Area of delivery	Proportion receiving allowance	Average allowance	Lowest allowance	Highest allowance
Business services and communication	40.7	15.7	9.7	19.8
Creative industries	46.7	12.0	2.1	19.8
Education and social services	84.6	17.9	9.7	39.7
Engineering and science	78.5	18.5	2.0	47.4
Other areas	0.0	**na**	**na**	**na**
All areas	**64.9**	**17.3**	**2.0**	**47.4**

a Under the *Victorian TAFE Teaching Staff Multi-Business Agreement 2009*, there are two base annual salary points for a Level 2 teacher (based on the holding of a Diploma teaching qualification). The levels corresponding to these points are $54 252 and $57 610. **na** not applicable.

Source: Productivity Commission estimates based on unpublished administrative workforce data from a Victorian TAFE institute.

By contrast, ERTOs are not subject to the same constraints as TAFEs and (to a lesser extent) private RTOs, as regards attracting and retaining workers with skills in demand, and there might be some growth in their numbers of trainers and assessors, relative to other VET employers.

FINDING 8.1

Statutory wage structures in the TAFE sector take no account of the relative scarcity of industry skills being sought. As a consequence, TAFEs need to rely on industry allowances to attract and retain some VET trainers and assessors with skills in demand. However, their ability to do so is limited by the fact that, at the going rates specified in agreements, other VET trainers and assessors are paid more than is necessary to attract and retain them.

Other aspects of statutory wage structures

Comparison with other parts of the education sector

For those people who are attracted to teaching, wage relativities can also affect the choice of education sectors in which to practise. Polytechnic West (PWA) indicated that, as a provider:

> … with lecturers delivering across both the VET and Higher Education sectors, PWA has difficulty attracting lecturers who are also delivering at universities (at times delivering the exact same unit) at a different rate. (Polytechnic West, sub. DR81, p. 3)

Figure 8.2 presents data on changes over time in average nominal earnings of VET trainers and assessors, primary and secondary school teachers, university lecturers and all occupations (for both permanent and non-permanent employees). Average hourly earnings of all VET trainers and assessors are below those of university lecturers, with the gap increasing since 2004. Conversely, VET trainers and assessors earn more than school teachers (both primary and secondary), although the gap has closed substantially in recent years. Caution is necessary, however, as there is likely to be significant variation around these averages due to differing structures of sectoral employment — variation in the share of casual staff, and in ranges of seniority, will influence the dispersion of earnings within and across workforces.

Figure 8.2   **Total nominal earnings per hour in education and all occupations, 1996–2010[a,b,c]**
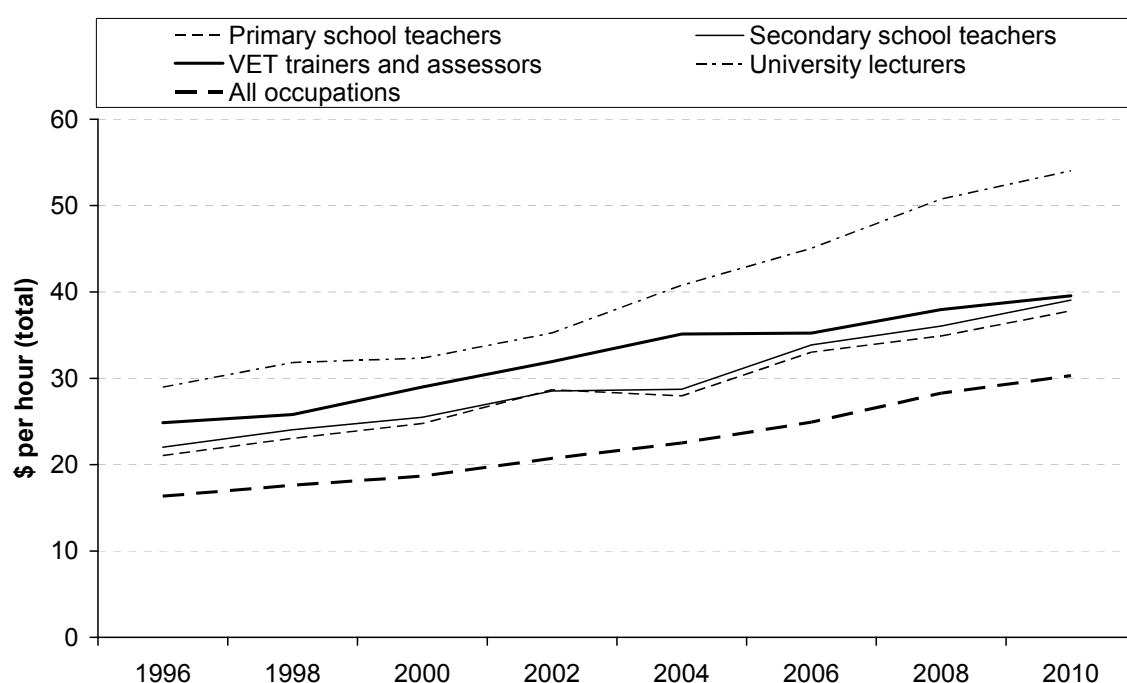
a Total earnings measure ordinary time earnings plus overtime earnings. **b** Each occupation includes permanent, fixed-term and casual workers. **c** These numbers are indicative only and the standard errors on some could be quite high.

Source: Productivity Commission estimates based on unpublished data from ABS (2010e).

Attractiveness across states and territories

As each State and Territory has its own statutory wage structure (table 8.2), the attractiveness of TAFE relative to other sectors might vary across jurisdictions. This might also influence the competition for workers between different VET providers. In

consultations, the Commission has heard that TAFE wage relativities across states could be a factor in staff mobility, especially in border towns such as Albury–Wodonga.

The financial attractiveness of VET employment might also vary between metropolitan and non-metropolitan locations. The Australian Council for Private Education and Training (ACPET) acknowledged that in 'regional and remote areas it can be difficult to retain and attract VET professionals, particularly if their skills are already in high demand from the local industry sector' (ACPET, sub. 50, p. 10).

Table 8.2   **Current annual salary scales for trainers and assessors, 2011[a]**

Lecturer/teacher scales for TAFE and private RTOs (modern award)

Jurisdiction	Entry level		Highest level		Average step
	Level	$	Level	$	$
TAFE					
New South Wales	10	71 469	13	84 759	3323
Victoria	1.1	48 055	5	74 624	2952
Queensland	1	58 035	7	74 563	2361
South Australia	1	55 130	6	79 034	3984
Western Australia	1	60 037	9	81 662	2403
Tasmania	1	50 632	9	78 509	3097
Northern Territory	1	42 226	10	74 657	3243
ACT	1	58 254	8	78 380	2516
Private RTOs (modern award)	1	37 570	12	49 594	1002

a In most cases, salary progression in TAFEs is based on tenure and, to a lesser extent, qualifications. Further details are contained in table C.46.

Source: Karapas, G., SA Department of Further Education, Employment, Science and Technology (DFEEST), pers. comm., 15 September 2010.

Statutory differences between jurisdictions are not apparent for private RTOs. Through the current award modernisation process, a new national award for the VET sector took effect from 1 January 2010 (the *Educational Service (Post-Secondary Education) Award 2010*). One result of this process is that employees of private providers now have award coverage, setting minimum standards and pay points. The award covers trainers and assessors in private RTOs who were not already covered by an enterprise agreement or pre-existing award.[6] It has a lower base-level salary and much lower maximum rate than apply to TAFEs.[7]

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6   Employees who conduct training or assessment in ERTOs are typically not covered by this modern award, but are instead covered by 'conditions related to their parent employment enterprise' (Enterprise Registered Training Organisation Association (ERTOA), sub. DR91,

Nonetheless, some providers covered by the new modern award feel disadvantaged, particularly in view of the interaction with funding arrangements:

> The new Modern Award [teaching English to speakers of other languages (TESOL)] structure for community college teachers is unrealistic with the required qualifications and level of pay. (NSW Department of Education and Training, sub. 43, p. 2)

> [The modern award] has created some challenges. There are automatic rate increases to occur over the next 5 years which might significantly impact some colleges as payment on the basis of the workforce qualification will be a mismatch against funding received from governments for some programs. (CCA, sub. 53, p. 12)

Attractiveness across forms of employment

Whether using the existing agreements or awards for TAFE, or the modern award for private providers, based on the information available, it is difficult to compare the earnings associated with an hour of teaching delivered under ongoing or casual employment arrangements. Several reasons explain this difficulty.

First, hourly rates for casuals assume a certain amount of preparation time will be required (typically, about 30 minutes per hour of delivery). However, the actual preparation time required could be longer (say, for a new course) or shorter (say, for a repeat class) and may vary across delivery areas.

Second, using rates specified in agreements does not capture any additional earnings from industry allowances.

Third, some jurisdictions adopt different casual rates for different tasks. For example, New South Wales has different pay rates for teaching, exam supervision and duties other than teaching, whereas Western Australia, Tasmania and the Northern Territory specify a single rate that applies to all tasks (listed under teaching).

From an employer's perspective, it is possible that employing casuals might be a cheaper way of obtaining a teaching hour, but it is hard to know.

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p. 18). So, for example, trainers or assessors at Woolworths Ltd (an ERTO) are covered by agreements specific to Woolworths' staff.

7 The salary table in the modern award was derived from the *Teachers (English Language Centres of Australian Universities) Conditions of Employment Award 1998*.

Hours of work

Relatively low hours for trainers and assessors prescribed in TAFE agreements might be a potential attractor for people who seek to achieve work–life balance:

> … other VET sector conditions, such as hours of work, may be more attractive than the mining industry shifts. (Minerals Council of Australia, sub. 23, p. 12)

There is considerable variation in the number and purpose of hours required of trainers and assessors in TAFE in the different jurisdictions (table 8.4). Defining what constitutes a full-time workload is difficult therefore. For example, in New South Wales, full-time TAFE trainers and assessors are expected to work for 35 hours per week over 41 teaching weeks of the year (table 8.4 and the *Crown Employees (Teachers in TAFE and Related Employees, Bradfield College and Teachers in TAFE Children's Centres) Salaries and Conditions Award 2009* (NSW)). During each of these weeks, they typically perform:

- direct teaching activities (20 hours)

- teaching-related duties at work (10 hours)

- non-teaching duties (5 hours), for which they are not required to be at work (non-attendance).

Table 8.3   **Current allocation of trainer and assessor working hours in industrial instruments**

For TAFE and private RTOs (modern award)

Jurisdiction	Weekly hours of work	Teaching hours per week	Duties other than teaching hours per week	Non-attendance hours per week	Non-attendance days per year	Max. teaching weeks per year	Max. teaching hours per year
TAFE							
NSW	35.00	20	15	5	35	36	720
Vic	38.00	21	17	8	27	42	800
Qld	36.25	21–25	11	4.25	25	39	819–975
SA	35.00	18–24	11–17	0	19–29	40	720–960
WA	37.50	20–21	16.5	7.5	20	40 or 42	840
Tas	35.00	19	16	ns	35	41	760
NT	36.75	24	11.75–16.75	ns	30	36–46	800
ACT	36.75	20	13	6.75	20	36–42	720
Private RTOs (modern award)	38.00	ns[a]	ns	ns	ns	ns	ns

a The modern award does not specify the number of teaching hours per week, but notes that 'each contact hour of teaching delivery will count as 1.5 hours of work, including administration, assessment and consultation' (Modern Award, p. 23). **ns**: not stated.

Source: Karapas, G., DFEEST, pers. comm., 21 September 2010.

Of the remaining 11 non-teaching weeks, there is also an allowance of 7 weeks (35 days) of paid non-attendance time, during which NSW TAFE trainers and assessors are not required to carry out particular duties (this provision is recognition for additional work and overtime).[8] The remaining four weeks represent official paid leave.[9]

Thus, on an annualised basis, the requirements of full-time work can differ considerably between TAFE and other industries. Full-time TAFE workers are not required to attend work for what would be regarded as an ordinary number of weekly hours or annual weeks. Consequently, some TAFE workers have more time available for non-work activities than most other full-time employees in the labour force. The amount of non-attendance time might be especially valuable for those who have carer duties, other jobs, or give work–life balance a higher priority.

Under the modern award, employees in private providers are required to work longer hours over more weeks than those in TAFE (table 8.4), much like employees in other parts of the economy. This instrument is also far less prescriptive on duties. Indeed, the only direction on time allocation is that a contact hour of teaching counts as 1.5 hours of work, to allow for administration, assessment and consultation. This implies that a trainer or assessor working for a private provider may teach for a maximum of 25 hours per week, with the remainder spent on these other duties.

The number of work hours specified in agreements and awards might not be an accurate reflection of actual workload if the demands of some roles, and/or the culture in some workplaces, mean that paid or unpaid overtime is common. According to the National Centre for Vocational Education Research (NCVER), 'because of the move to more flexible approaches to delivery, many teachers work long hours on tasks that are not properly recognised or remunerated in industrial agreements' (2004a, p. 6). Survey data (DEEWR 2010i) are consistent with this view, indicating that two-thirds of all trainers and assessors work unpaid overtime (data not shown). Half of all trainers and assessors in private RTOs work unpaid overtime, with 77 per cent working between 1 and 10 hours extra per week. In TAFE, three-quarters of trainers and assessors work unpaid overtime, with 81 per cent working between 1 and 10 hours extra per week.

One participant argued that, for TAFE, 'greater functional flexibility [would mean] that for teachers there are no limits on the type of activity to be undertaken within "ordinary hours". Such a provision will be open to abuse by management by

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[8] Karapas, G., DFEEST, pers. comm., 16 November 2010.

[9] Karapas, G., DFEEST, pers. comm., 27 September 2010.

imposing excessive teaching hours' (Phillip Toner, sub. DR79, p. 35). However, although functional flexibility could result in more contact hours for some trainers and assessors, it could also result in less administrative or corporate work for those who prefer to specialise in teaching.

Work arrangements

The availability of permanent and non-permanent work can be an important attractor for the VET sector.

As discussed in chapter 3, non-permanent employment is a characteristic of the VET workforce in all jurisdictions, particularly of TAFEs. Within non-permanent forms of employment, casual employment is the most prevalent (table C.11). The ACTU characterised casual employment as 'low pay', lacking in 'standard employment rights and entitlements' and with 'high levels of insecurity' (ACTU, sub. 31, pp. 14–15). Other participants agreed, and claimed that casual employment does not respond to a genuine preference of employees. Some participants argued that casualisation of the VET workforce holds implications for quality and for the workloads of others:

> There is an immediate threat to quality in VET when … such a large proportion of the workforce is employed casually. (AEU, sub. 34, p. 28)

> Casualisation of the workforce means that administrative staff increasingly face the burden of answering to VET compliance questions (because the tutors are often not available to ask). (CCA, sub. 53, p. 10)

> The increased use of casuals increases the co-ordination and administrative burden of head/permanent teachers. (DEEWR, sub. 60, p. 36)

Others contended that potential VET workers' prefer permanent to casual employment:

> The notion of 'permanent employment' is one of the obvious distinguishing features of the public RTO workforce. This feature can act as [a strong incentive] for attracting future VET lecturers (along with other 'lifestyle' conditions of employment). (Polytechnic West, sub. 5, p. 6)

This might explain the difficulties in recruiting casual staff:

> The presence in many RTOs of high proportions of casual staff contributes to the difficulties associated with recruiting and retaining high quality staff. (Erica Smith, sub. 39, p. 8)

However, other participants noted that casual employment is the natural consequence of the dual professional identity of VET trainers and assessors, and of the need to attract workers from industry:

> … casual employment can increase the flexibility of the VET workforce to meet short-term and specialist demand and provide a mechanism for encouraging the use of 'industry experts'. (NVEAC, sub. DR75, p. 7–8)

> Given skills shortages and assuming that the economy continues to improve, we will be competing with our own industries, the industries that take our graduates, for the same staff. … [The increasing number of] sessional and casual staff employed in many Institutes … [might] … address the issue. (The Gordon, sub. 9 p. 2)

Further discussion of casual employment is provided later in this chapter.

Professional standing of the VET workforce

Professional standing of the VET workforce might play a role in the attraction and retention of VET workers. The VET sector has been described by some as the 'poor cousin' of the broader education sector, reflecting the relatively low perceived status of VET trainers and assessors, compared with school teachers and higher education lecturers (Harris et al. 2005; Strebler et al. 2005). According to Service Skills Australia, 'being a VET [trainer or assessor] is a low status job compared to university and school teaching; professional pride may be lacking' (Service Skills Australia, sub. 13 (attachment), p. 100). Moreover, many VET trainers and assessors surveyed in Australia believe their status has declined alongside a 'changing public perception associated with a shifting emphasis and downgrading of teachers' roles from educators to trainers' (Harris et al. 2005, p. 29).

It is not known how widespread the 'poor cousin' perception is in practice. In some enterprise RTOs, 'time spent as a trainer or assessor was seen to improve the employee's promotion prospects' (ERTOA, sub. DR91 (attachment), p. 2). Moreover, in 2007, Polytechnic West (then known as Swan TAFE) ran a radio campaign to recruit 108 tradespersons into teaching. The campaign was very successful, in terms of generating interest (1000 enquiries) and applications (1027). This does not suggest that the VET workforce has an image problem. But, if it did, a lack of professional standing is a problem that might be amenable to a rebranding solution (box 8.3). The issue of professionalism and status is examined in more detail in chapter 10.

Box 8.3	**Is rebranding of workers or providers a solution?**

What's in a name? Marketing literature suggests quite a lot: 'it is exactly the label that summarises the physical attributes, past behaviour, and other characteristics of the carrier of the name' (Tadelis 1999, p. 548). Some participants suggested that labelling is important: 'A better name for VET practitioners should be discussed, to improve the image of the occupation. "Vocational educators" is one possibility' (Service Skills Australia, sub. 13 (attachment), p. 97). A name change would not, of itself, change the image of the modern VET worker. However, it could form part of a wider rebranding strategy for the sector. Such a strategy would require in-depth research and should be the responsibility of interested stakeholders.

On the employers' side, RTOs could develop their workplace culture and environment to position themselves as 'employers of choice'. This is known as employment branding, and could be attractive to leading providers. Such a strategy might include changing the name of some institutions from TAFE to Polytechnic as some providers have been asked to do:

> When the current Barnett Liberal Government in Western Australia came into office it told TAFE institutes to drop the term TAFE from its title, saying that the brand had lost its value. The previous Bartlett Labour government in Tasmania axed its award-winning TAFE institute in order to create two new organisations, the Polytechnic and the Skills Institute. (John Mitchell and Associates, sub. DR102, p. 15)

Career pathways

The prospect of visible career pathways can be a powerful factor of attraction into, and retention in, the VET workforce. Service Skills Australia said that to ensure the future capacity of the VET workforce, 'there should be awareness-raising about career possibilities within VET' (sub. 13 (attachment), p. 97). Master Builders Australia also argued that 'there is a role for government in promoting VET as a career pathway, in partnership with industry and other stakeholders' (Master Builders Australia, sub. DR67, p. 2).

Many 'part-time and casual staff may not be greatly interested in careers as VET [trainers and assessors]' (Service Skills Australia, sub. 13 (attachment), p. 100). However, available information suggests many others achieve a VET career. Mobility data from a survey in 2010 (table C.37) indicate that 73 per cent of trainers and assessors who joined the VET sector as casuals or fixed-term employees eventually moved into permanent or ongoing positions, reflecting a preference for a VET career over industry work.

As well as transitions from contingent to permanent employment, careers in VET also allow for progression to other roles. Survey data indicate that, in some 77 per cent of

cases, entry into other VET professional roles occurs via trainer and assessor positions (Simons et al. 2009), reflecting that many wider professional skills are learnt on the job. However, career progression is also the result of some trainers and assessors having acquired skills outside of VET, possibly in industry roles.

Overall, effective succession planning for the VET sector will require clearly defined and supported pathways for those wanting a career in VET. These pathways might allow for movement into more senior roles of the same type (such as course coordinators) or between roles (such as from general staff into trainer or assessor roles).

Administrative load

Administrative burden on staff can be an important detractor from recruiting and retaining staff. A number of participants have argued that the administrative load has increased in recent years:

> From a regulation and compliance focus, administration requirements have increased significantly. (CCA, sub. 53, p. 11)

> The changing role of the TAFE lecturer in recent years has seen a significant increase in administrative workloads and duties not directly associated with teaching e.g. governance and compliance training. (Polytechnic West, sub. 5, p. 7)

This increased load is having negative consequences on staff satisfaction, and, as a result, on attraction and retention:

> All literature reviewed to date reports significant expansion in work roles across the [VET professionals] workforce. This results in stress, time pressure, and lack of self-confidence among staff about their capability to meet new requirements, and impacts on job satisfaction and staff retention. (ANTA 2004a, p. 76)

> This can have a negative impact on staff, particularly newly appointed lecturers direct from industry who see their primary function as a lecturer being eroded by clerical and administrative tasks. Inefficiencies in deploying staff this way is compounded in some cases if they do not have the necessary (usually IT) skills to perform these tasks. (Polytechnic West, sub. 5, p. 7)

There are concerns that increasing administrative burdens will increase the complexity (as well as the volume) of work and that this will require workers with more advanced skills. For the ACE part of the VET sector, with its high reliance on volunteers (chapter 3), there is a risk that the work associated with regulation requirements will become too onerous for the existing mix of staff to handle, causing them to leave the sector (CCA, sub. 53).

Data also confirm that the administrative load has, in fact, increased. Results from the Victorian *State of our TAFEs* survey in 2008 showed that 'eighty per cent of respondents felt that their workloads had increased … much of this extra workload was created by excessive administrative duties' (AEU, sub. 34, pp. 54–5). Further, a 'large proportion (74 per cent) of the survey respondents also felt that work-related stress levels had increased over the past 12 months' (AEU, sub. 34, p. 56).

In part, evidence of increased administrative loads among VET managers and leaders might reflect the demands of the increased regulatory burden in the sector. In recent work, the Commission concluded that the VET sector:

> … is subject to heavy regulatory burdens, including excessive reporting requirements, slow accreditation processes … jurisdictional inconsistencies and overlaps, and regulatory frameworks which do not reflect developments in the structure of the education sector. (Productivity Commission (PC) 2009a, p. 289)

The Commission noted that the sector's concerns in relation to reporting obligations were taking far too long to address, and concluded that:

> It is vital that the development of specific reforms to streamline reporting obligations is undertaken as soon as possible and in a manner consistent with the implementation of the standard business reporting (SBR) initiative, which will be available from 31 March 2010. (PC 2009a, p. 315)

In addition to an effect on individual staff, increased administrative load is also leading to additional staff being engaged specifically to deal with these increased work volumes:

> This expansion in compliance activity, which includes the increased reporting requirements … has resulted in additional staff resources at an estimated cost above $600,000 (plus oncosts) being allocated from 2009 as follows:
>
> - 2 EFT auditing staff in the Quality Assurance Unit
>
> - 0.6 EFT position to coordinate internal survey activity required to meet AQTF reporting requirements
>
> - 1.7 EFT staff across faculties to coordinate compliance activity
>
> - 2 EFT in Academic Registry for student statistical reporting
>
> - 2 EFT in Marketing and Corporate Communications
>
> - $25,000 casual allowance in Information Services
>
> Additionally, 5 EFT staff have been transferred from other activities, now discontinued, to concentrate on regulatory and compliance issues. (North Melbourne Institute of TAFE (NMIT) 2010, p. 10)

> Skills Reform is proving costly for the sector with TAFE providers reporting a range of associated costs such as the need employ more staff to cope with the extra administrative requirements. (VTA 2010, p. 10)

8.3 Attracting specific groups

Additional recruitment and retention strategies might be planned for specific groups, namely semi-retirees and retirees, workers in other industries or overseas and Indigenous workers. Strategies for each of these groups are also examined below.

Semi-retirees and retirees

With demand for VET set to increase in the medium to long term (chapter 6), ensuring future workforce capacity is likely to require some clever strategies targeting potential VET workers. As the labour force ages, older workers are likely to be a potential source of VET recruits, as they transition to retirement. Analysis of VET careers in chapter 3 has shown that there is already a significant inflow of workers aged 52 to 64 years into some segments of the sector.

Further, several participants argued that part-time work in VET might suit older workers:

> Older workers are often looking to combine work and leisure, learn new skills, change careers, or delay retirement and may seek part-time work. (NSW Government, sub. 57, p. 6)

> Community Colleges offer part-time contract work which could match the work desires of this [older] group. The possibility … provides a worthwhile forum in which such individuals can pass on their experience. (CCA, sub. 53, p. 9)

> … a common conversation I have with staff is that they are about to retire but they really don't want to stop working. (John Mitchell and Associates, sub. 37, p. 21)

> … some trade teachers have moved into teaching as a 'semi retirement' from industry. (TAFE Development Centre, sub. 18, p. 2)

The ACTU expressed the view that:

> … in some sectors this form of career path is encouraged explicitly with older tradespersons for example encouraged to take up teaching, training and assessment roles. This is something that has benefits for both the individuals concerned who are provided with new career pathways, the students who receive the benefits of this industry experience, and the quality of the broader VET workforce. (sub. 31, p. 12)

One example of a project targeting older workers is the *Mature Aged Workers Career Transition Project* in South Australia. The aim of this project was to convert tradespeople in the electrical, transport and distribution, and construction industries into trainers and workplace assessors, thus providing new employment opportunities for older tradespeople (ACTU, sub. 31).

In another example, 'Box Hill Institute has a scheme to retain and attract back people who have recently retired. This strategy is used to fill gaps for specialised tasks and for coaching and mentoring younger teachers' (Skills Australia, sub. 59, p. 3). Skills Australia advocates that older recruits need to be 'supported by tax incentives, flexible work practices and changes to superannuation' (sub. 59, p. 3).

VET workers in other industries or overseas

It might be possible for the VET sector to attract back workers from other industries — including other education industries — who already hold adequate vocational and teaching qualifications:

> An important observation is that while people may move in and out of the TAFE workforce they are not necessarily lost to the education and training sector. They often move into related occupations in education and training in other public and private organisations. To some extent there is a diaspora of VET practitioners and professionals in the wider workforce which provides a potential human resource to attract back into TAFE. (Joint TAFE Associations, sub. 48, p. 31)

Census figures show that, of the people who held a TAA40104 Certificate IV in Training and Assessment (TAA) (or its predecessor qualifications) as their highest qualification in 2006, 44 per cent were employed outside the VET sector, 14 per cent were not in the labour force and 2 per cent were unemployed. These figures underestimate the total number of workers potentially available as trainers and assessors, as they do not include workers who have the Certificate IV in TAA as well as higher qualifications. However, assuming that the underestimate affects both those within and outside the VET sector, they are suggestive of a sizeable group of suitably-qualified people who are currently working outside VET.

Use by the VET sector of workers from other industries can take the form of formal sharing arrangements.

> … some Institutes are already forming partnerships with firms (particularly large firms) to share specialised staff under contract. (The Gordon, sub. 9, p. 2)

Partnerships between RTOs and industry can involve teaching fellowships or industry release schemes under which trainers and assessors are formally shared between the two sectors. Flexible working arrangements allow individuals to contribute to both sectors.

There might also be scope for staff partnerships between VET providers or, given the blurring of boundaries, between the other education sectors and VET. The merging of VET and higher education into a single tertiary sector might provide more opportunities for partnerships between RTOs and universities, which might

then lead to consolidation rather than duplication of VET offerings, and shared use of trainers and assessors to deliver these courses.

To some extent, shared use between education and training providers already occurs:

> There are some [trainers and assessors] for whom TAFE work is just one product within a portfolio of employment, where they may work for 5 different employers including, for example, two TAFEs, industry, private RTOs and their own business. (The Gordon, sub. 9, pp. 13–14)

> One method utilised by some colleges to assist VET practitioners with work tenure is to 'share' their teachers with other similar institutes. This assists the practitioner in gaining more hours (if they desire) and also exposes them to a range of institutional practices which assists in their own personal teaching development. (CCA, sub. 53, p. 11)

Sharing could also occur at an international level. Some domestic VET providers with off-shore delivery or partnerships could create a 'trainee teacher exchange', whereby foreign VET teachers are rotated through domestic parent institutions in order to familiarise themselves with the requirements of the Australian VET system.

More generally, skilled migration could prove an effective way of alleviating shortages in some segments of the VET workforce. Foreign-born workers already make up about 23 per cent of the total TAFE workforce (ABS 2006c), and 10 per cent of these workers arrived in Australia after 1999 (chapter 3). Overseas recruits would need to meet the industry currency and qualification standards that apply domestically.

Indigenous workers

Through a stocktake of research on good practice, Miller (2005) identified seven key factors that lead to positive and improved outcomes from VET for Indigenous people. Two of these factors were: the incorporation of Indigenous identities, cultures, knowledge and values into the delivery of VET; and quality staff and committed advocacy for Indigenous learners. In recognition of the needs of Indigenous learners, many VET providers are currently seeking to employ more Indigenous staff, including through the use of Indigenous employment strategies (box 8.4). However, the small pool of Indigenous VET workers is a key hurdle that RTOs need to overcome:

> Competition between providers for qualified Indigenous staff is likely to become extremely intense in the coming years. VET employers will need to be more proactive and more effective in attracting, recruiting, developing and retaining Indigenous staff. (Kemmis et al. 2006, p. 6)

> Difficulties have been experienced in attracting/retaining staff in high demand/growth areas such as … Indigenous education. (Joint TAFE Associations, sub. 48, pp. 28–9)

Box 8.4   Polytechnic West's *Indigenous Employment Strategy*

Polytechnic West aims to increase its proportion of Indigenous employees, partly because the Indigenous student population has been growing strongly, placing extra demands on existing Indigenous staff to promote an understanding of issues and barriers facing these students. In 2009, Indigenous students comprised about 3 per cent of the Polytechnic West student population and Indigenous employees comprised about 1 per cent of all the Institute's employees.

The Polytechnic had participated in the *National Indigenous Cadetship Program* (NICP). However, this program failed when the only NICP participant left after 18 months. Flaws in the recruitment process were blamed for this failure.

The Polytechnic has since developed an *Indigenous Employment Strategy* (IES) covering four key areas:

- *participation*: implement the IES; ensure that staff embrace it; develop a marketing strategy for the Polytechnic as an Indigenous employer of choice; establish an Indigenous Human Resources Officer; include Indigenous employment outcomes in the annual report; and establish a target proportion for Indigenous staff

- *recruitment*: ensure recruitment across a range of roles; liaise closely with Job Network providers; ensure that an Indigenous person is on selection panels for Indigenous candidates; and incorporate Indigenous elements into HR policies

- *retention*: establish mentoring processes; review mentoring undertaken; develop a skills consolidation program; and establish relevant career pathways

- *cultural awareness and respect*: develop and implement a cultural awareness program; all staff undertake cultural awareness training; new Indigenous employees undergo induction and cultural alignment training; and all managers undergo cultural sensitivity training.

As part of this strategy, in 2010 the Polytechnic hired an Indigenous employment coordinator, to help attract and retain Indigenous employees. A review of the outcomes achieved by the coordinator will be undertaken in late 2011.

Source: Polytechnic West (2010); Swan TAFE (2009a, 2009b).

Some providers have gaps between their policies and practices relating to Indigenous staff:

> Across Australia, policies and strategies urge strategic workforce planning and more culturally sensitive employment practices … Nevertheless, Indigenous informants contacted in the course of this study … frequently commented that overt, covert and institutionalised racism affects the capacity of employers to attract and retain Indigenous staff. (Kemmis et al. 2006, pp. 8–9)

Nevertheless, many examples of good practice exist, as the examples below illustrate.

Reconciliation Action Plans

Reconciliation Action Plans (RAPs) might assist organisations, including RTOs, to secure more Indigenous workers (box 8.5). Very few VET providers have a RAP. Reconciliation Australia is attempting to measure the impact of RAPs. Once results from that project are released, more RTOs should consider developing RAPs.

Box 8.5   **Reconciliation Action Plans**

In July 2006, Reconciliation Australia launched the *Reconciliation Action Plan* (RAP) program. According to Reconciliation Australia, RAPs outline actions to promote reconciliation and turn 'good intentions into actions'. In 2010, over 400 organisations, accounting for about 15 per cent of the Australian workforce had a RAP (Reconciliation Australia 2010a). Through these plans, organisations have committed to recruit over 8300 Indigenous Australians and have placed an estimated 5300 Indigenous Australians in jobs. In addition, close to $800 million in supply contracts have been awarded to Indigenous businesses (Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) 2011).

In December 2009, Reconciliation Australia released *Measuring the Impact of the Reconciliation Action Plan Program*, a discussion paper outlining ideas on how to measure the impact of RAPs (Reconciliation Australia 2010b). Reconciliation Australia invited feedback on this discussion paper and will release a follow up paper later in 2011.

In the VET sector, North Coast TAFE, Southbank Institute of Technology and Canberra Institute of Technology have a RAP.

ANZ Bank have had a RAP in place since 2007. ANZ noted that they:

> … found it useful to participate in Reconciliation Australia's Reconciliation Action Plan program to set, achieve and monitor our progress in commitments to Indigenous Australia. VET organisations including RTOs could be encouraged to participate in the Reconciliation Action Plan program to track and monitor their progress to improving VET outcomes for Indigenous Australians. (sub. DR113, p. 3)

Indigenous pre-employment and traineeship programs

Many Indigenous people have limited education and low language, literacy and numeracy (LLN) skills. Adequate LLN skills are critical for completing Year 12 and successful entry into post-secondary education and employment. For this reason, pre-employment programs and traineeships can provide a pathway for Indigenous people into study in VET and into the workforce.

Many employers, in a range of industries, have Indigenous pre-employment and traineeship programs in place, designed to employ more Indigenous Australians and improve their skills. These programs involve providing education to Indigenous

people, often in partnership with a VET provider, to improve employment prospects (box 8.6). Many of these programs have been successful and could be emulated by the VET sector to secure its own Indigenous workforce.

Box 8.6 **Successful Indigenous pre-employment and traineeship programs**

Macmahon Indigenous pre-employment program

Macmahon is an international company, which has a contract with BHP Billiton to provide services to an iron ore mine near Newman in the Pilbara region of Western Australia. The *Indigenous Mining Skills Program* (IMSP) is a partnership between Macmahon, BHP Billiton and Pilbara TAFE Newman campus. The program aims to increase Indigenous employment through pre-employment training and traineeships.

The IMSP includes a 14-week pre-employment program, including 4 weeks of work experience, and a one-year traineeship. The pre-employment program focuses mostly on 'enabling skills', including encouraging healthy lifestyles, improving self-esteem and conflict resolution/team work. To date, the pre-employment program has had 82 participants, of which 77 per cent of participants completed, and 70 per cent went on to traineeships (Howard 2010).

ANZ Indigenous employment strategies

Since 2003, the ANZ bank has recruited over 500 Indigenous trainees in branches around Australia using full-time and school-based Indigenous traineeships. Full-time trainees work at least four days a week in an ANZ branch and achieve a Certificate III. School-based trainees work at least one day a week in an ANZ branch while completing Years 11 and 12 and achieve a Certificate II qualification. Benson Saulo, a current ANZ employee who completed the school-based traineeship in 2005, noted the importance of these opportunities to young Indigenous people (sub. DR109).

Indigenous Police Recruiting Our Way

Indigenous Police Recruiting Our Way (IPROWD) is a training program to help Aboriginal people gain entry to the NSW Police College at Goulburn. TAFE NSW, the NSW Police Force and the Australian Government are partners in the program. A statewide rollout of IPROWD commenced in July 2010, after an evaluation of the pilot program. All 14 students in the first intake successfully completed the 18 week course. Six of these students then applied to the NSW Police College. As at April 2011, 181 applications had been received for IPROWD.

The training program involves: a rigorous selection process, testing foundation skills and aptitude for police work; a Certificate III in Vocational and Study Pathways; a fitness program aligned to the fitness requirements of a NSW Police Officer; mentoring by teachers and the NSW Police Force during and after the course; and support to assist with accommodation, medical and personal support needs. Students are case managed and supported from the interview stage until 26 weeks after course completion (Grey, S., TAFE NSW, pers. comm., 13 April 2011).

The Commission has not undertaken an exhaustive search of Indigenous pre-employment and traineeship programs. Nor has the Commission sought to identify and analyse all the programs that RTOs have in place to recruit and retain Indigenous people. The Commission is aware that some RTOs sponsor Indigenous people to undertake the Certificate IV in TAA, through the *Indigenous Cadetship Support Scheme*. This strategy could be considered by other RTOs.

Current Indigenous VET students are an important source of future Indigenous trainers and assessors. The Indigenous VET student population is large. In 2008, 4.4 per cent of all students in the publicly-funded VET sector were Indigenous (chapter 6). This is larger than the Indigenous share of the population (2.5 per cent) (Steering Committee for the Review of Government Service Provision (SCRGSP) 2009b). VET providers should promote careers as trainers and assessors to Indigenous students. VET providers should also encourage Indigenous students to continue to higher-level study, since many Indigenous VET students are now studying at the Certificate I or Certificate II level.

Indigenous employment strategies, and more specific initiatives, such as ensuring the presence of Indigenous staff members on recruitment panels when there is an Indigenous candidate, are critical to increasing the size of the Indigenous VET workforce. However, VET providers should be careful not to 'pigeonhole' Indigenous recruits. Some employers expect Indigenous recruits to work in Indigenous-specific roles when these recruits might prefer to work in 'mainstream' roles. Santoro and Reid (2006) examined expectations of Indigenous teachers and found that they were expected to be 'all things to all people' and 'fill a number of complex and sometimes conflicting roles within and beyond classrooms' (p. 287). These expectations were found to contribute to resignations by Indigenous staff.

The importance of increasing the capability of the VET workforce in teaching, training and assessing Indigenous students is discussed in chapter 9.

RECOMMENDATION 8.1

In order to improve delivery to Indigenous VET students, VET providers should attempt to secure the services of more Indigenous VET workers. Possible strategies include ensuring the presence of Indigenous staff members on recruitment panels, signing Reconciliation Action Plans and offering cadetships to Indigenous people studying the Certificate IV in Training and Assessment and other teaching qualifications. Recognising that it is difficult for VET to attract skilled Indigenous VET workers who are also being sought by industry, the VET sector should also put in place strategies to support Indigenous students to complete their studies within the VET sector, to enable progression into the workforce and encourage their return to the VET sector as trainers and assessors.

8.4   Reforms to enhance capacity and efficiency

This section explores measures to mitigate the risks of insufficient workforce capacity and improve the efficiency of workforce arrangements.

For the VET workforce to work efficiently, it needs to operate within a human resources management framework that is conducive to achieving that outcome. This framework should ensure that, at all times, workers with diverse skills can be combined efficiently with each other, and with non-labour inputs in the most effective way possible. This has implications for job analysis and design, the use of casuals, the characteristics of employment agreements and links between pay and performance.

Job analysis and design

Job analysis and design are important contributors to the efficiency of an organisation's workforce. They involve specifying the characteristics of the job (including the tasks to be done), and the skills and other requirements needed by someone to perform that job (Kramar et al. 1997). Job descriptions and specifications developed through job analysis and design underpin performance management, recruitment, selection and training and development programs.

Many participants suggested that the nature of VET delivery is undergoing profound change:

> It is an acknowledged fact the task of lecturing in the VET system has increased in complexity. With the continuous increase in demand for RPL, workplace delivery and traineeships; the incorporation of online technology into training; and the diversity of learners, the mode of 'only teaching in the classroom' no longer holds currency. (WA Department of Training and Workforce Development, sub. 26 (attachment 3), p. 2)

> … the use of technology will impact heavily on current delivery and methods over the next 5 years. (The Gordon, sub. 9, p. 11)

According to some participants, job analysis and design in the VET sector have not kept up with the pace and nature of that change:

> … it is highly likely that many people will have, to some extent, inappropriate job titles, job tasks and performance measures. … Now that we know more about VET practice, such as the nine skills sets, and the categories of novice, established and specialist, it is possible to match practitioners with tasks. For example, there is no point asking a novice to handle a complex recognition of prior learning (RPL) case … that is better dealt with by a learning and facilitation specialist. (John Mitchell and Associates, sub. 37, p. 17)

According to McNickle and Cameron (2003), outdated job design is particularly apparent in TAFE institutes. They argued that:

- flexible delivery has significantly changed teachers' work, resulting in extended hours, diverse delivery locations, a wider range of activities and clients, and greater reliance on technical and administrative staff in delivery teams

- many TAFE institutes had generic job descriptions, which were based on classroom teaching rather than the characteristics required for flexible delivery

- non-teaching support and administrative staff working in multi-skilled delivery teams should also have job descriptions that take account of the new requirements of flexible delivery.

Importance of casuals for flexibility in the VET workforce

The increasingly competitive training market requires greater flexibility in order to increase:

- recognition of prior learning;

- workplace delivery and traineeships;

- the use of on-line technology into training; and

- the diversity of learners and the diversity of contexts in which learning occurs (WA Department of Training and Workforce Development, sub. 26 (attachment 3)).

This will require a mix of job roles and employment arrangements to facilitate efficient delivery of VET:

> Perhaps we need to look at different types of staff for different types of work, and skills, qualifications and attributes that are attuned to the types of work that people are doing. (WA Department of Training and Workforce Development, sub. 26 (attachment 3), p. 4)

> The shift to online delivery and other emerging technologies may lead to reductions in permanent, long term employment options. (Joint TAFE Associations, sub. 48, p. 18)

> In order to operate in a more commercial environment, TAFE SA will need the capacity to utilise staffing arrangements that extend the service and training delivery hours and methods to meet the needs of students and employers. (DFEEST 2011, p. 6)

Casual employment has increasingly provided the VET sector with both numerical and functional flexibility. The structure of the VET workforce has been likened to a 'core–periphery' model, in which a core of permanent, full-time and experienced staff manage the work of a large group of casual, contract, part-time and temporary staff (Harris et al. 2005).

Some participants noted the flexibility provided by the use of casuals:

> A large permanent workforce, however, does not provide the flexibility the public VET sector needs to ensure it is able to respond quickly to meet short-term and 'delivery on-demand' scenarios that may develop in response to industry demands. The challenge for the sector is to maintain the optimal number, type and mix of 'permanent' lecturers to meet mainstream training demand, and a 'non-permanent' work force to meet training-on-demand contingencies, which can be reduced during economic down turns … Casual lecturers provide a cost effective way of meeting demand during skill shortage periods or for addressing lecturer availability due to staff being on leave or deployed on other tasks. (Polytechnic West, sub. 5, p. 6)

> … casual staff numbers are consistently high in public RTOs mainly as a means of meeting after hours, short term and specialist demand. (A rural/regional VET provider, quoted in Joint TAFE Associations, sub. 48, p. 36)

> There is an increasing use of short term and casual staff to meet peak load requirements for specific industry skills and client demand. … It appears that there is a trend leaning towards a mobile workforce. (Joint TAFE Associations, sub. 48, p. 18)

However, others see extensive use of casuals as undesirable. For example, the NSW Teachers Foundation said:

> [The] Federation recognises that amongst other things a highly casualised TAFE workforce limits succession planning, adversely impacts on the workload of permanent colleagues, particularly Head Teachers, and is not in the best interests of students … Whilst there may be a need for flexibility in TAFE staffing with some temporary and casual staff to cater for varying enrolments, industry requirements and timetabling issues … the current rate of casualisation is a quality issue that puts unfair workload and pressures on permanent staff and exploits long-term hourly paid casuals. (sub. 47, p. 5)

A large group of casual staff has significant implications for the work roles of permanent staff, who need to manage the work of their contingent colleagues and undertake corporate functions like relationship building and longer-term planning. The challenge for the sector is to strike a balance between the strengths and weaknesses that each group carries. It is unlikely that a set proportion of core and periphery personnel would adequately meet the needs of all employers.

Characteristics of employment agreements that potentially limit flexibility

Employment agreements tend to both reflect and reinforce an associated set of work arrangements. To the extent that agreements support flexibility in the way work is performed, the capacity and efficiency of a workforce is likely to be enhanced as the nature of work changes.

Agreements in the TAFE sector have been criticised for not having kept pace with changes in trainers and assessors' work and, therefore, acting as an impediment to the process of adaptation to change (NCVER 2004b). This perceived inflexibility has been attributed by some to the centralised nature of bargaining:

> … TAFE institutes reported unanimously that the process of enterprise bargaining is very constrained. The bargaining positions of managers in TAFE institutes are subject to the control of the state training authorities and unions operating at the state level, which makes it extremely difficult for managers to adapt their bargaining positions to local circumstances. (Smith and Hawke 2008, p. 36)

> The award framework, with built in rigidities and requirements for particular modes of employment for instance, mitigate against greater and more flexible utilisation of staff in industry, for the purposes of teaching on the job. (WA Department of Training and Workforce Development, sub. 26 (attachment 3), p. 2)

Study participants pointed to a number of other characteristics of TAFE employment agreements that have the potential to limit flexibility and efficiency: pay arrangements including undifferentiated wages; constraints on the use of casuals; and prescriptive hours arrangements.

Pay arrangements

TVET Australia argued that the wage structure in the TAFE sector 'is a barrier to the appropriate allocation of labour, which costs the sector in misplaced human and financial resources' (Technical and Vocational Education and Training Australia (TVET), sub. DR87, p. 6). Further, giving a business perspective, Ai Group argued that 'current arrangements impede the recruitment and retention of appropriate VET staff' (sub. DR88, p. 6).

Other participants saw merit in the current TAFE wage arrangements. The Australian Council of Trade Unions (ACTU) argued that wages and conditions based on qualifications and experience offer a wide range of benefits:

> VET practitioners should expect to be paid well commensurate with their qualifications and experience and in keeping with their professional status. This is crucial to the future attraction, recruitment and retention of VET teachers alongside employment security, career progression, opportunities for professional development, and supportive work environments. (sub. DR80, p. 15)

Phillip Toner advanced the well-known 'work value' argument to argue in favour of homogenous wages in the TAFE sector:

> … paying people different rates of pay for doing an identical job, that is, VET teaching, can offend people's sense of distributive justice. Less formally, there is an expectation of equal pay for equal work. A lack of distributive justice in the workplace has been

shown to reduce worker co-operation and staff morale (Folger and Konovsky 1989). (Phillip Toner, sub. DR79, p. 36)

The Commission notes that the 'work value' argument would require the realignment of TAFE wages across Australia, to adhere to a single pay scale. This would not be favourable to greater efficiency or to the flexibility of TAFEs in attracting and rewarding high quality staff.

Undifferentiated wages

In those jurisdictions that have more than one TAFE institute, pay and conditions are governed by statewide agreements or awards (for example: in Victoria, the *Victorian TAFE Teaching Staff Multi-Business Agreement 2009*; in Queensland, the *TAFE Teachers' Award – State 2003*). These instruments apply base levels of pay that are undifferentiated across institutes and/or campuses. In terms of pay scales, pay varies with tenure and, to a lesser extent, qualifications (table C.46).

The terms of TAFE industrial relations instruments are inherited from the schools sector, and typically offset low pay with low hours. They do not formally distinguish skills in demand from others that are more commonplace. Moreover, they are subject to the State and Territory Governments' overarching guidelines for annual pay increases in the public sector. This sets up rigidities that limit the ability of individual TAFEs to vary pay according to skill scarcity and performance, although industry allowances are paid in a number of instances (table 8.1). The staff shortages already discussed are one consequence of these rigidities.

The Commission recommends that industrial relations settings in the public VET sector become more tailored and flexible. In particular, there should be agreements allowing enterprise-level wage flexibility that reflects the value of a particular bundle of skills and qualifications relevant to the diverse circumstances and locations.

In contrast to the TAFE sector, the arrangements for private providers and ERTOs tend to be underpinned by enterprise-level agreements and the modern award. The Commission is not aware of any major concerns regarding inflexibility pertaining to employment arrangements in private providers and ERTOs.

> Enterprise level bargaining enables the development of fair and flexible working arrangements that are tailored to suit both the needs of an individual business and the needs of employees. This can benefit both employers and employees through increased flexibility and associated productivity improvements… (DEEWR, sub. 60, p. 50)

Caps on the use of casuals

TAFE enterprise agreements in many states discourage the use of casuals and some states even impose formal caps (table 8.4). Further, additional 'restrictions are placed on public providers such as a prohibition on the use of labour hire companies' (The Gordon, sub. 9, p. 17). This can have the effect of limiting the ability of VET providers to respond quickly to changes in demand for VET services and might inhibit efficiency:

> [There is] an industrial agreement that prescribes a percentage of Lecturing staff that must be permanent, and a funding model that is formulated around flexible employment arrangements. The need for a workforce that is very adaptable or a workforce that is less rigid in its approach to permanent appointments is therefore imperative to have both an efficient and effective workforce and business. (Joint TAFE Associations, sub. 48, p. 36)

Table 8.4 **TAFE agreement limits on the use of casuals**

Jurisdiction	Limits on use of casual staff
New South Wales	None
Victoria	Yes — discouraged[a]
Queensland	Yes[b]
South Australia	Yes — fixed level[c]
Western Australia	Capped at 25 per cent of the workforce
Tasmania	Capped at 15 per cent of the teaching salary costs
Northern Territory	None
ACT	Yes — discouraged[d]

[a] '… the preferred mode of employment in TAFE [is] ongoing … A teacher may only be employed on a casual basis where the work to be performed is of an irregular nature or for a short period of time.' [b] 'A casual employee … is engaged as such on an hourly basis ... Casual employees should not: be engaged on a regular and systematic basis; be engaged for several periods of employment for more than one year; and have a reasonable expectation of further employment with the employer.' [c] 'The pattern of total HPI [hourly paid instructors'] hours utilised by an Institute will be monitored by TAFE and the AEU on a regular basis to ensure the level of use is not increased.' [d] Canberra Institute of Technology, the only TAFE in the ACT 'will endeavour to minimise the use of temporary and casual employment.'

Source: Relevant industry awards and agreements.

Analysis of unpublished TAFE administrative data for 2010, supplied by each jurisdiction (except the Northern Territory), indicates significant variation in the use of casual employment arrangements (chapter 3). On a headcount basis, between 9 and 56 per cent of the TAFE workforce are casuals.[10] Among trainers and assessors, the variability is even higher, from 13 to 67 per cent (table C.11). This suggests that the limits imposed on the use of casuals in some jurisdictions are affecting the ability of employers to use this form of employment. If caps on the use

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[10] Some jurisdictions adopt the term sessional to refer to casual staff.

of casuals are biting in some jurisdictions, it is likely that they contribute to the staff shortages noted previously.

Furthermore, by definition, industry experts are employed as casuals. Therefore, restrictions on the use of casuals have the potential to restrict the use of industry experts, who are a significant lifeline to industry currency. The Commission would consider any such restrictions on the use of industry experts to be undesirable.

Prescriptions on hours arrangements

As discussed earlier, existing industrial instruments for the public VET sector are very prescriptive about working arrangements with respect to time worked (table 8.4). They specify how much to work (weeks worked per year, total hours worked per week), when to work (what constitutes ordinary hours or overtime and how much can be done) and, in the case of trainers and assessors, what to do (how those hours should be split between teaching and non-teaching duties) and where to do it (whether attendance at work is required).

This can constrain flexibility and efficiency:

> Enterprise agreements that are in place also limit the ability of the public provider to rapidly respond to industry demand, for example, by offering weekend classes. (DFEEST, sub. 54, p. 10)

> Current industrial agreements which underpin and describe the way TAFE staff work need to be changed to reflect the reality of the ways different providers and their various business units and staff work today. For example, the adoption of new and more flexible teaching approaches and learning technologies makes it difficult to use traditional measures of productivity, like teaching hours, as a basis of industrial agreements. … Over prescription of terms and conditions of employment limits flexibility and the opportunity to provide rewarding and fulfilling work for staff. (Guthrie and Clayton 2010, p. 18)

A submission by ACPET to the Australian Industrial Relations Commission on the modern award for the sector highlighted private providers' concerns about rigidities relating to hours in industrial relations arrangements. In this submission, ACPET commented on the specification of the ordinary hours of operation during which employees are expected to work in industrial awards and agreements. Overtime and/or penalty rates can apply for employees who have to work outside these hours. This can increase costs for providers if they need to deliver VET outside ordinary hours due to the needs of students who work, or if expensive industry standard facilities and equipment are unavailable during these times (Minter Ellison (2009), on behalf of ACPET).

The Commission suggests that there is significant scope for making workplace arrangements more flexible without creating an unreasonable burden on the workforce or undermining the attractiveness of the sector to staff. For example, employment contracts or agreements in the TAFE sector could specify ordinary work time for trainers and assessors and not overly prescribe when, where and how that time should be spent.

Linking performance with pay

Based on previous analyses of the VET sector, TAFE institutes tend to utilise performance management systems less than do other providers. Research suggests that the focus of performance management in that sector is limited to professional development, and that employment agreements limit evaluation of performance and its linking to pay (Smith and Hawke 2008, p. 21). Indeed, current TAFE agreements in most jurisdictions contain minimal, if any, links between performance and pay or promotion. In the ACT, the current agreement for VET teachers at the Canberra Institute of Technology stipulates their commitment to a performance culture but that this 'does not permit the inclusion of performance pay' (*CIT Teachers' Enterprise Agreement 2009–2011*, p. 74). From the Commission's analysis, performance assessments in TAFEs appear to be limited to determining sanctions for non-performance of duties, rather than rewarding outstanding performance. Salary progression is mostly based on seniority and, to a lesser extent, qualifications, without any reference to effort, industry currency, satisfaction ratings or student or client outcomes.

By contrast, performance management linking pay to performance is used in about a quarter of private RTOs (Smith and Hawke 2008).[11] No information is available about ERTOs more specifically.

The Commission notes that the new modern award that covers some of the training staff in private providers sets minimum conditions and has no real links between pay and performance other than:

> … subject to the continuing satisfactory conduct, diligence and performance of a teacher and the acquisition and utilisation of skills and knowledge through experience, progression from one salary level to the next will occur on the completion of a year of full-time experience or equivalent part-time experience. (*Educational Services (Post-Secondary Education) Award 2010* (Cwlth), p. 38)

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[11] Smith and Hawke (2008) conducted a survey of 114 private RTOs and found that 23 per cent reported that they link pay to performance. In contrast, for TAFE, 'the linking of pay to performance [was] almost completely absent in the survey responses' (p. 21).

Several participants, including some employee and employer representatives, did not support the principle of performance pay, expressing doubts about its usefulness:

> Performance pay has been tried many times in the past in different teaching environments and jurisdictions, without achieving the benefits its advocates have promised. Such schemes have often shown to be divisive and counter-productive, and are based on a misunderstanding of what motivates teachers. (ACTU, sub. 31, p. 21)

> The AEU views performance pay schemes based on bonus payments to teachers or institutions and linked to narrow measures of student test scores as educationally unsound, industrially counter productive and ultimately futile. (AEU, sub. DR101, p. 11)

> … it is unlikely that a performance management system linking pay to performance would necessarily be effective. The known 'nature' of VET trainers and their motivations for engaging in this role suggests a low propensity currently for performance incentives. (CCA, sub. DR104, p. 2)

However, DEEWR argued that 'establishing a link between pay and individual performance can assist with aligning the interests of employers and employees, as well as helping to improve productivity, including in the VET sector' (DEEWR, sub. 60, p. 50).

According to John Mitchell and Associates and JMA Analytics, performance pay is ethical if aligned with skills that the employer values:

> Ethically, this would work best if the performance pay was aligned with a clear concept of the skills being requested. For example, it would be ideal if those people with specialist skills in, say, e-learning or RPL or workplace assessment were rewarded appropriately, compared with someone with novice level skills in these domains. (sub. 37, p. 17)

The Commission notes that the Victorian Government is trialing school- and teacher-based rewards in primary and secondary schools between 2010 and 2013, as part of the Smarter Schools partnership agreements. The 'Teacher Rewards model' provides annual bonuses for top performing teachers and schools. Initially, the program involves piloting 'two teacher pay bonus models at up to 75 selected Victorian government primary and secondary schools' (Pike 2009, p. 1).

Although acknowledging that performance pay arrangements have limitations in all industries, and that teachers have many motivations other than remuneration, the Commission considers that providing more autonomy for TAFEs and other VET providers to link pay to performance, and to set wages more generally, would help with recruiting and retaining the best candidates by rewarding their skills and effort.

The way forward

In this chapter, the Commission has recommended changes to a number of aspects of industrial relations settings and workplace arrangements in TAFE, which would require new agreements between employers and employees to be struck.

One of the changes recommended by the Commission would enable individual TAFEs to pay higher wages than currently to some workers. This would be efficient as long as those wages reflected the value of a particular bundle of skills (including industry currency) and qualifications (including educational). Conversely, TAFEs should have the flexibility to pay some staff lower wages than is currently the case, also by reference to appropriate industry comparators, adjusted for teaching skills.

For the Commission's recommendations to be implemented, new agreements between employers and employees in the TAFE sector would need to be struck. The Commission's understanding is that there exists scope to adjust future wage relativities between areas of delivery in TAFE. While preserving the wages of existing ongoing staff at current levels, as a minimum, the next round of agreements could begin to reshape labour costs by setting wages for new staff (and those on new fixed-term and casual contracts) according to the relevant awards, and using individualised industry allowances to attract and retain staff in key areas of delivery.

Across Australia, some TAFE agreements are currently under negotiation and the remainder are due for renegotiation within the next 18 months. These negotiations would provide an early opportunity for bargaining partners to consider the Commission's recommendations.

RECOMMENDATION 8.2

Each TAFE institute should be able to select the mix of employment arrangements, supported by contemporary human resource management practices, that best suits its business goals. This should include industrial relations settings that offer more flexibility, by removing caps on the use of casual staff, prescriptive hours to be worked and undifferentiated wages and conditions.

9   Workforce capability — background and evidence

Key points

- The capability requirements of VET trainers and assessors, and leaders and managers, have been well-researched. Less is known about the capability requirements of general staff.

- Qualification thresholds for salary progression, and provisions for professional development (PD), vary significantly between the industrial instruments of different states and territories. This suggests that some jurisdictions:
    - accord greater relative importance to formal learning for VET practitioners, than to informal learning or work experience
    - provide significantly more support for PD.

- Research about the schools workforce reveals no compelling evidence that many observable teacher characteristics, including pre-service training, higher-level qualifications and certification have a meaningful impact on student achievement. The Commission is not aware of comparable evidence for the Australian VET sector. This evidence gap should be remedied.

- Some elements of pre-service training, in particular practicum, are nonetheless effective in building discrete teacher skills.

- The VET workforce currently meets the needs of many learners and firms, however:
    - delivery to students who might experience disadvantage is an area of considerable exposure for the sector in the future
    - there is tentative evidence of capability gaps relating to delivery of higher-level qualifications
    - there is evidence that the workforce has significant capability gaps in information and communication technology skills
    - there is evidence that some trainers and assessors lack skills in Recognition of Prior Learning and Recognition of Current Competence
    - there is evidence of capability gaps relating to workplace-based delivery
    - there is evidence of capability gaps among managers and leaders.

- There is evidence of industry currency gaps in the workforce, particularly among some practitioners who have worked full-time in the sector for more than 10 years.

Capability 'represents the potential ability of [the] workforce to conduct effective training and assessment' (IBSA, sub. 8, p. 1). At an individual level, capabilities reflect 'an integration of [general] knowledge, skills, personal knowledge and understanding used appropriately and effectively' (Stephenson 1992, cited in Mitchell and Ward 2010, p. 4).

Many factors impact on the effectiveness of the VET sector, but the workforce is the key:

> Without capable people — supported by the right policies, budget settings, industrial relations arrangements, procedures and organisational environment — providers cannot be capable organisations. (SA Training and Skills Commission, sub. 51, p. 13)

This chapter lays the groundwork for consideration of issues relating to improvements in capability in chapter 10. To this end, it includes: discussion of the capabilities needed by the workforce (section 9.1); description of institutional settings relevant to capability (section 9.2); a summary of research evidence on the characteristics of trainers and assessors that potentially influence their effectiveness (section 9.3); and analysis of workforce capability gaps (section 9.4) and industry currency (section 9.5).

9.1   What capabilities does the workforce require?

A number of researchers have analysed the capabilities required by different VET workers. Some of the more recent of those analyses are described below.

Capabilities required by VET practitioners

At the request of the then WA Department of Training, Rumsey and Associates (2002) compiled a matrix of the skills required of VET practitioners that comprised of six domains: instruction and assessment; personal; student support; education technology; design; and management skills. Areas of perceived skill need were detailed for each domain for each of 18 types of VET practitioner. Rumsey and Associates' (2002) definition of a VET practitioner was very broad, and included, for example, VET administrative staff, VET managers and employers involved in VET delivery.

In 2004, Dickie et al. undertook a project for the Australian National Training Authority to identify 'professional workforce training, development and management needs over the next five to ten years, for VET and the VET professional' (2004, p. 3). The authors identified a set of skills required by all members of the VET workforce including: an ability to adapt to change; client focus skills; management and

leadership capabilities; coaching, mentoring and networking skills; facility with information and communication technologies; and knowledge work capabilities. Skill clusters identified as being required by VET workers directly involved in delivery included pedagogical expertise, a learner focus, industry currency, use of technology, client focus, VET system expertise and a set of personal qualities and attributes (Dickie et al. 2004.

Guthrie et al. (2006), in an update of Rumsey and Associates' (2002) work for the WA Department of Education and Training, outlined the 'knowledge, skills and personal attributes that will equip VET professionals to meet key challenges in the next 5 years' (p. 37). This work distinguished nine categories of requirements: teaching, learning and assessment expertise; program and resource development skills; strategic enquiry; technology; business and client focus; vocational expertise and industry currency; VET system knowledge; management and leadership; and personal qualities and attributes.

Guthrie et al. stressed that not all practitioners required all of these skills and personal attributes, '[r]ather, those required by an individual practitioner are dependent on a combination of personal abilities and interests and client, work team and organisational needs' (2006, p. 38).

Most recently, Mitchell and Ward (2010) used survey responses from VET practitioners about the capabilities that they use in their work to develop a model of VET practice comprising nine skill sets (box 9.1).[1] Unlike the analyses described above, their model distinguishes the capabilities required by new practitioners from those needed in more advanced practitioner roles. Five skill sets are identified as being required for foundation practice, two for more advanced roles, and two as supports for all practice. Drawing on these skill sets, Mitchell and Ward (2010) identified three categories, and five types, of VET trainer and assessor:

1. Foundation VET practitioners, including:

    (a) the foundation VET practitioner — novice: members of this group are not yet proficient in the five foundation skills

    (b) the foundation VET practitioner — established: have acquired the five foundation skills required of the profession.

2. Specialist VET practitioners, including:

    (a) VET commercial specialists — specialists in personalising training for commercial customers and in related marketing and sales

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1 Mitchell and Ward (2010, p. 7) describe VET practitioners as 'any person working in the (VET) sector who undertakes teaching/training and/or assessing, full or part-time, regularly or occasionally'.

(b) VET learning and assessment specialists — specialists in the facilitation, organisation and management of learning and assessment that goes beyond the context of either the classroom or the workplace. This includes e-learning and on-line assessment, as well as distance and off-shore learning.

3. Advanced VET practitioners — equally competent in the tasks required of a commercial specialist and a learning and assessment specialist.

Mitchell and Ward (2010) noted that practitioners acquire foundation skills through the Certificate IV in Training and Assessment, and/or on-the-job during the first year or two of teaching, training and assessing. They reported being unable, however, to describe how practitioners transition from foundation to higher levels of practice, but assumed that development of these skill sets occurs through a combination of on-the-job and formal professional development.

Capabilities required by other members of the VET workforce

Some studies have focused solely on the skills needs of VET managers and leaders. These range from a typology covering traditional, change and strategic management skills, proposed by Mitchell in various papers (for example, 2003, 2004), through six areas of leadership capability identified by Callan (2001, 2005), to seven domains of activity for VET leaders and managers, described by Mulcahy (2003). Callan et al. (2007) concluded that core capabilities for managers and leaders vary by level of management, but:

> … include those related to the transformational qualities of being able to communicate a vision for the organisation, to build successful teams, and to inspire staff to make a commitment to change. These core capabilities also include sound strategic thinking and planning skills, and an ability to be business like in approach. (Callan et al. 2007, p. 7)

More recently, Coates et al. (2010), in a study of VET leadership, described a capability framework that included: personal; interpersonal; and cognitive capabilities, along with role-specific and generic competencies.

Dickie et al. (2004, p. 105) noted that there was little literature on the capability needs of general staff working in VET. They concluded that, in addition to a set of skills required by all VET workers (listed in the previous citation to their work), general staff need 'technical skills in their area of expertise', and an 'aptitude and interest in developing new skills'.

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Box 9.1   Elements of Mitchell and Ward's model of VET practice

Nine professional skill sets used by Australian VET practitioners

Foundation skill sets

1. Learning theories — knowledge that underpins learning, including knowledge of VET pedagogy and andragogy, theories of cognitive, behavioural and experiential learning, and learning styles and preferences.

2. Learning styles — a skill set that includes the ability to take into account visual, auditory and kinaesthetic learners when teaching/training.

3. Foundation learning facilitation — skills in facilitating individual, group, workplace and equity group learning.

4. Foundation assessment skills — including skills in summative, formative, diagnostic and Recognition of Prior Learning (RPL) assessment, as the ability to perform such assessments within the context of the classroom and the workplace.

5. Course organisation and student management — including skills such as the ability to: apply continuous improvement to the management and delivery of VET courses; engage stakeholders in the delivery, monitoring and evaluation of courses; ensure that all students receive necessary training and support services; and ensure that all training and assessment materials meet the requirements of the relevant training package or accredited course.

Advanced skill sets

6. Advanced learning facilitation and assessment skills — including skills in facilitating e-, distance- and off-shore learning and online assessment, and the ability to facilitate flexible learning.

7. Commercial skills — skills in conducting commercial educational activity, including teaching and training in a workplace environment, managing commercial relationships, offering consultancy services, personalising training for commercial customers and adapting training packages for commercial purposes.

Supporting skill sets

8. Generic skills — including negotiation, communication, decision making and critical thinking skills, along with ethical standards.

9. Educational research — covering skills in the collection and analysis of data to inform educational quality, and research skills for the purpose of expanding understanding of VET educational issues.

Source: Mitchell and Ward (2010).

9.2   Institutional settings relevant to capability

A number of institutional settings are relevant to the capability of the VET workforce. These settings relate, primarily, to the formal mechanisms through which capability is assumed to develop — qualifications and other forms of professional development (PD):

- National standards set out the qualification and PD requirements for trainers and assessors employed by Registered Training Organisations (RTOs).

- Industrial agreements include qualification thresholds for progression and provisions relating to PD.

- Training Packages, managed by Industry Skills Councils (ISCs), specify the skills and knowledge that workers require to perform effectively in the workplace. ISCs also provide advice on emerging areas of capability need — a potential focus for PD.

Description of these settings is provided in the following sections, along with a brief recent history of VET teacher qualifications and PD (presented after the discussion of national standards). The section closes with a short description of the role of the National Centre for Vocational Education Research (NCVER).

National standards — relevant Australian Quality Training Framework settings and industrial instruments

The Australian Quality Training Framework (AQTF) 2010 sets out the standards that RTOs need to meet in order to 'deliver and assess nationally recognised training and issue nationally recognised qualifications' (Australian Government 2010a, p. 1). The standards include a description of the characteristics required of trainers and assessors working within RTOs — set out in element 1.4 — and of RTO managers and leaders. More detail about these requirements is presented below, preceding a brief history of the initiatives focused on the education of VET trainers and assessors that underlie element 1.4.[2]

Element 1.4 of the AQTF

Element 1.4 is presented in box 9.2. The National Quality Council (NQC) sets out the competency requirements for trainers and assessors referred to in element 1.4(a) in 'Determinations'. The most recent Determination, from 17 June 2010, is reproduced in box 9.3. The 'necessary training and assessment competencies' have

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[2] For a fuller discussion of this topic, see Guthrie 2010a.

not changed significantly for a number of years. In contrast, a section on vocational competency was included for the first time in the Determination of 18 December 2009 and included a:

- definition of vocational competency

- requirement that Training Packages include advice from industry on the vocational competencies required by assessors

- requirement that Training Packages provide advice on the types of evidence that practitioners might use to demonstrate that they are maintaining their vocational currency.

Box 9.2   Element 1.4 of the AQTF

Element 1.4 of AQTF 2010 (Australian Government 2010a, p. 6) requires that:

> 1.4 Training and assessment is delivered by trainers and assessors who:
>
> (a) have the necessary training and assessment competencies as determined by the National Quality Council or its successors, and
>
> (b) have the relevant vocational competencies at least to the level being delivered or assessed, and
>
> (c) can demonstrate current industry skills directly relevant to the training/assessment being undertaken, and
>
> (d) continue to develop their Vocational Education and Training (VET) knowledge and skills as well as their industry currency and trainer/assessor competence.

Elements 1.4(c) and 1.4(d), replace element 1.4(c) from AQTF 2007, which stated:

> (c) continue developing their vocational and training and assessment competencies to support continuous improvements in delivery of the RTO's services. (NQC 2007a, p. 4)

Other relevant AQTF content

The AQTF also sets out requirements relating to the characteristics of RTO managers and leaders. Condition one, on governance, requires that:

> The RTO's senior officers and directors or substantial shareholders who are in a position to influence the management of the organisation must satisfy fit and proper person requirements unless these requirements have already been met through other legislative provisions. (Australian Government 2010a, p. 3)

Box 9.3   **Recent NQC Determinations**

Determination of 17 June 2010

Trainers must:

i) hold the TAE40110 Certificate IV in Training and Assessment from the TAE10 Training and Education Training Package; or

ii) be able to demonstrate equivalent competencies; or

iii) work under the direct supervision* of a person who has the competencies specified in (i) or (ii) above; and be able to demonstrate vocational competencies at least to the level of those being delivered.

Note: Direct supervision is achieved when a person delivering training on behalf of the RTO has regular guidance, support and direction from a person designated by the RTO who has the trainer competencies in (i) or (ii) above and who monitors and is accountable for the training delivery. It is not necessary for the supervising person to be present during all training delivery.

Assessors must:

i) hold the following three competencies from the TAE10 Training and Education Training Package:

a) TAEASS401A Plan assessment activities and processes

b) TAEASS402A Assess competence

c) TAEASS403A Participate in assessment validation; or

ii) be able to demonstrate equivalent competencies to all three units of competency listed in (i).

Vocational Competency — Determination of 18 December 2009

Vocational competency is defined as broad industry knowledge and experience, usually combined with a relevant industry qualification. A person who has vocational competency will be familiar with the content of the vocation and will have relevant current experience in the industry. Vocational competency must be considered on an industry-by-industry basis and with reference to the guidance provided in the Assessment Guidelines of the relevant Training Package.

Training Packages include advice specific to the industry related to the vocational competencies of assessors. This may include advice on relevant industry qualifications and experience required for assessing against the Training Package or for specific qualifications within the package. The Training Package will also provide specific industry advice outlining what it sees as acceptable forms of evidence to demonstrate the maintenance of currency of vocational competency.

Source: NQC 2010c.

A brief history of trainer and assessor standards

VET teacher education received little attention in Australia until the Kangan report recommended an urgent inquiry into the issue in 1974. The resulting Fleming report, published in 1978, was 'the first serious study of TAFE teachers in Australia'

(Chappell et al. 1994, p. 184). A series of national conferences on Technical and Further Education (TAFE) teacher education followed during the early 1980s, but consensus on a preferred model for teacher preparation did not emerge. A subsequent national review in 1990 prompted the introduction of degree-level programs at some universities. However, debate about initial teacher training continued. A report commissioned by training and employment Ministers, and published in 1992, concluded that:

> The inappropriateness of many of the initial teacher training courses continues to restrict TAFE. The fundamental problem is the lack of recognition that the TAFE employers and employees are the clients. (VEETAC 1992, p. 14).

Meanwhile, in 1989, the Dawkins report concluded that a significant initiative was needed to upgrade the skills of enterprise trainers (Peak 1992). The first competency standards for workplace trainers and assessors were subsequently endorsed in 1992 and 1993, respectively. Following a review process, revised and expanded versions of these standards were combined in the first Training Package for assessment and workplace training (BSZ98) (Gillis et al. 1999):

> The Standards apply to people carrying out assessment and training regardless of the setting. This means they apply just as much to staff in vocational education and training institutions as to people training and assessing in the workplace. (ANTA 1998, p. 12)

Concerns about trainer and assessor capability continued to be raised in studies conducted in the late 1990s (for example, Schofield 2000; Parliament of Australia Senate 2000), and there were calls for the national regulation of standards.

The first national standards for trainers and assessors working in RTOs were mandated in AQTF 2001. The teaching qualification requirements in this standard were based on the Certificate IV in Assessment and Workplace Training, and assessor competencies, described in the BSZ98 Package. Most jurisdictions, at that point, did not have minimum standards for TAFE teachers in place (Parliament of Australia Senate 2000). (One exception, New South Wales, retained a teaching degree requirement for permanent staff until 2008.) AQTF 2001, therefore, represented a general raising of the regulatory bar. It is not clear why the Certificate IV was adopted, rather than a degree qualification. Guthrie (2010a) points to a number of possible explanations, including: dissatisfaction with university course offerings; casuals' lack of access to funded formal development; and state and territory resourcing concerns.

In the broad, the requirements laid out in element 1.4 of the AQTF 2010 are very similar to those in AQTF 2001. The minimum training and assessment competencies required are a Certificate IV, or equivalent competencies, or supervision by someone holding the Certificate IV. However, the detailed content of

the Certificate IV has changed with revisions of the Training Package. The TAE10 Training and Education Training Package, endorsed by the NQC in May 2010, is now the Reference Package. AQTF 2010 also introduced changes which increase the clarity of AQTF requirements relating to vocational competency. RTOs are now explicitly required to ensure that their trainers and assessors are able to demonstrate relevant current industry skills.

Industrial instruments

Qualification thresholds for progression

With the exception of the Tasmanian Polytechnic, minimum qualification requirements for VET trainers and assessors across the states and territories are consistent with the relevant NQC Determination. In Tasmania, from 1 January 2011, VET practitioners employed by the Tasmanian Polytechnic are required to register with the Teacher's Registration Board of Tasmania. The requirements for full registration include that practitioners hold an approved higher-education teacher education qualification. Practitioners who do not hold such a qualification can be granted provisional registration, but need to obtain a qualification within five years (Teachers' Registration Board of Tasmania 2011).

For TAFE trainers and assessors in other jurisdictions (and in the Tasmanian Skills Institute), progression to some points within the salary scales contained within awards and agreements is dependent on the attainment of a qualification (table 9.1). (Detail on the salary points is located in table C.40.)

The variation in these requirements across the states and territories is noteworthy. The *Western Australian TAFE Lecturers' General Agreement 2008*, for example, requires TAFE lecturers to hold the Certificate IV in Training and Assessment, or an equivalent qualification, before progressing to the fourth level of the lecturer salary scale, and a minimum salary of $67 768. In contrast, the *Victorian TAFE Teaching Staff Multi-Business Agreement 2009* requires that teaching staff hold a Diploma-level teaching qualification before progression to the T3.1 point on the scale and a salary of $60 724. This disparity suggests that, with respect to rewarding capability, some jurisdictions attach more relative importance to formal learning than to informal learning or work experience.

Pay rates for casual teaching staff within TAFEs also vary with teaching qualifications in some states and territories. The *Victorian TAFE Teaching Staff Multi-Business Agreement 2009*, for example, stipulates that casuals holding a

Certificate IV teaching qualification should receive $58.47 per teaching hour, and those with a Diploma $60.77.

Under the Modern Award, which covers trainers and assessors in RTOs other than TAFEs, starting salaries are higher as workers' qualifications are higher, and trainers and assessors cannot progress beyond level nine in the salary scale if they do not hold a three year degree (or can demonstrate that they can carry out the duties of someone who has a higher-level qualification).

Table 9.1   **Lecturer/teacher qualification thresholds for progression[a]**

	Thresholds
New South Wales	• progression more than one step beyond the step paid on initial appointment — Certificate IV • Head teacher — TAA Diploma
Victoria	• T1.2 — TAE10 Certificate IV in TAA or equivalent • T3.1 — teaching qualification at Diploma level which includes supervised teaching practice and studies in teaching methodology
Queensland	• step 4 — higher education teaching qualification
South Australia	• step 3 — TAE10 Certificate IV in TAA & 5 core units from the TAA Diploma or qualification in teaching field • step 4 — TAE10 Certificate IV in TAA & 10 core units from the TAA Diploma • step 5 — TAA Diploma or equivalent • ASL — B.Ed (Adult, Vocational & Workplace Learning) or equivalent
Western Australia	• step 3 — TAE10 Certificate IV in TAA or equivalent • step 6 — TAA Diploma or equivalent • ASL1 — higher education qualification
Tasmania	• step 9 (AST) — degree with education units and/or 3 years PD related to teaching and learning
Northern Territory	No qualification threshold for progression
ACT	• step 7 — TAE10 Certificate IV in TAA or equivalent

a Advanced lecturer/teacher classifications have been included where there is a qualification threshold for progression. ASL — Advanced Skills Lecturer; AST — Advanced Skills Teacher.

Sources: Relevant industrial relations instruments for each jurisdiction; Coutts-Trotter 2008 (qualification requirements for New South Wales).

Professional development

Provision for PD is also made within the sector's awards and agreements. Dedicated hours per annum and funding provisions for the PD of VET practitioners are reproduced in table 9.2. Provisions vary significantly between jurisdictions, and are

almost non-existent for casual and sessional staff. No provision is made for PD in the relevant modern award *Educational Services (Post-Secondary Education) Award 2010*.

Table 9.2   **Professional development provisions in state and territory industrial instruments, by employment arrangement[a]**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
Ongoing lecturer/teacher arrangements								
Hours per annum	20[b]	30 off scheduled duties[c]	64	–	Can accrue up to 37.5 hours of time worked on PD towards subsequent time off	100	Eligible to apply for 6 months after 3 years	36
Funding as % of salary per annum	–	–	2.5	0.5	–	–	–	1
Casual/sessional arrangements								
Hours per annum	_[d]	–	–	_[e]	_[d]	_[d]	–	–
Funding as % of salary per annum	–	–	–	0.5	–	–	–	0.05[f]

a No provision is made for PD in the relevant modern award *Educational Services (Post-Secondary Education) Award 2010*. **b** Arrangements preserved for new teachers. **c** Minor variations in some Institutes. **d** No formal entitlement, but can be authorised. **e** Except for hourly paid instructors with 400 hours teaching per annum. **f** Where the employee has averaged 8 hours/week over 4 terms. – denotes zero.

Source: Karapas, G., DFEEST, pers. comm., 15 September 2010.

The wide variation in provisions for PD is noteworthy, given the AQTF requirement that RTOs ensure that trainers and assessors continue to develop their competence. It is unclear why these variations exist, and it suggests that states and territories have significantly different views about what it takes to comply with this AQTF requirement.

Sources of advice on capability

IBSA and the TAE Training Package

Innovation and Business Skills Australia (IBSA), an Industry Skills Council (ISC), has a central role in identifying and proposing solutions to the capability needs of the VET workforce. As an ISC, IBSA is funded by the Australian Government to:

- provide integrated industry intelligence and advice to governments on workforce development and skills needs
- maintain and improve training materials and supporting products and services

- provide advice on skills, training and workforce development to enterprises. (IBSA nd, p. 2)

As part of these functions, IBSA is responsible for the development and maintenance of the TAE10 Training and Education Training Package, which provides a description of 'the skills and knowledge needed to perform effectively in the [VET] workplace' (DEEWR 2010h, p. 27). The TAE10 Training Package currently contains seven qualifications (box 9.4). An eighth, the Diploma of Training and Assessment, is currently under review.

Box 9.4   Qualifications contained in the TAE10 Training Package

TAE40110 Certificate IV in Training and Assessment

TAE50310 Diploma of International Education Services

TAE70110 Vocational Graduate Certificate in Adult Language, Literacy and Numeracy Practice

TAE70210 Vocational Graduate Certificate in Management (Learning)

TAE70310 Vocational Graduate Certificate in International Education Services

TAE80110 Vocational Graduate Diploma of Adult Language, Literacy and Numeracy Leadership

TAE80210 Vocational Graduate Diploma of Management (Learning)

Source: DEEWR (2010h).

Through its annual environment scan, IBSA also provides advice about the key challenges facing the VET sector and their impact on workforce development needs. Based on this assessment, it devises and sells PD activities to the VET sector:

    IBSA is committed to running a range of national professional development workshops and events for trainers and assessors, and VET professionals. (IBSA 2011, p. 1)

IBSA also commissions research relevant to capability, to inform its activities. A recent report by the Enterprise Registered Training Organisation Association (ERTOA, sub. DR91, attachment 1) is a case in point.

Other Training Packages

As noted above (box 9.3), from December 2009, Training Package developers (mainly ISCs) are required to include advice about the vocational competencies required by assessors, and the types of evidence VET practitioners can use to demonstrate that they are maintaining the currency of their vocational competence. To date, advice of this type has not been included in many Packages. The TAE10

Training Package is one exception (box 9.5). As Packages are updated and revised, information of this type has the potential to be a valuable input to decisions about PD for VET practitioners.

Box 9.5   **Advice about evidence indicating maintenance of currency in the TAE10 Training Package**

Good practice in maintaining currency

All persons conducting assessments against the competency standards in the TAE10 Training and Education Training Package should:

- demonstrate current skills and knowledge in assessment practice, which could be met by a combination of evidence, including:
  – relevant work history
  – attendance at professional development activities focusing on best practice in assessment and/or workplace training
  – colleague/peer support and participation in trainer/assessor and/or professional networks
  – participation in networks and communities of practice
  – participation in moderation and validation activities
  – knowledge of current practices in assessment and workplace training
  – recent assessment and workplace training activities
  – knowledge of language, literacy and numeracy issues in the context of assessment and workplace training
- have current knowledge of the industry and workplace of the TAE learners/candidates, which would include:
  – familiarity with the industry/enterprise competency standards to be used by the learner/candidate as the basis of assessment and/or training
  – an understanding, where applicable of the training and/or assessment system in which the learner/candidate operates
  – knowledge of the requisite assessor qualifications for the industry or enterprise.

Source: DEEWR (2010h).

The National Centre for Vocational Education Research

The NCVER's work has relevance to the capability of the VET workforce through its role as an 'independent body responsible for collecting, managing, analysing, evaluating and communicating research and statistics about vocational education and training (VET) nationally' (NCVER 2011a). (More detail on the NCVER is presented in appendix E.)

At March 2011, the NCVER's catalogue contained 42 publications under the theme 'VET workforce' — some are about capability. A number were produced through the *Consortium Research Program: supporting vocational education and training providers in building capability for the future*, funded by the NCVER over a period of two years from late 2004.

9.3 Evidence on the impact of teachers' observable characteristics on student achievement

The effectiveness of the VET workforce in educing students' learning is a key motivation for focusing on capability. This focus is based on the premise that the capabilities of VET teachers, trainers and assessors influence their students' achievement. Those capabilities potentially develop via a number of pathways, including formal study and on-the-job experiences. This section summarises research conclusions on the links between trainers and assessors' observable characteristics, and student achievement. There is a dearth of evidence on this topic for the VET sector. In contrast, a large literature exists for the schools sector. Much of the following material is therefore drawn from that literature. A discussion of the limited evidence for the Australian VET sector concludes the section.

Many researchers have analysed the relationship between school teachers' observable characteristics and student achievement, where the latter is measured, for example, as pass rates, completion rates and test scores. (Higher quality analyses tend to measure achievement in terms of changes in student test scores over time.) Links have been examined, for example, between achievement and: pre-service teacher training; advanced degrees; experience; PD; teacher scores on achievement tests; voluntary teacher certification; and teacher subject matter knowledge. Examination of this research reveals that, despite considerable effort, researchers have not found compelling evidence that many observable teacher characteristics have a meaningful impact on student achievement:

> Many aspects of teacher quality that have been measured have resulted in findings that are inconsistent across studies or have such small effects that they are of no *practical* significance, even when they are statistically significant. (Goe 2007, pp. 2–3)

Some study participants referenced single studies that have found a positive relationship between teacher characteristics and student achievement. The Australian College of Educators (sub. DR95, pp. 2–3), for example, cite a paper by Darling-Hammond, that draws conclusions from a working paper by other authors. However, given the large number of studies in this area, the Commission has favoured those that systematically review and draw conclusions from the thrust of the international literature (for example, through meta-analyses).

Qualifications and experience

Evidence on pre-service training points to little, if any, effect of alternative teacher preparation models on student achievement. American school teachers can enter the profession via traditional and alternative routes (one of which is Teach for America). There are striking differences in the hours of instruction employed in both program types. Constantine et al. (2009) found that hours in traditional programs ranged from 240 to 1380, and in alternative programs from 75 to 795. They concluded that '[t]here is no evidence … that greater levels of teacher training coursework were associated with the effectiveness of AC teachers [teachers trained in alternative programs] in the classroom' (Constantine et al. 2009, p. xviii).

The most rigorous studies of the Teach for America program find no evidence of a statistically significant link between the type of pre-service program and student achievement (Teach for America 2008). More generally, on the basis of a synthesis of meta-analyses, Hattie (2009) concluded that:

> Teachers' initial teacher training programs have little impact on how well those teachers influence the achievement of their students. Maybe subsequent effects wash out this earlier training, limited as it is in effectiveness, although the low quantity and quality of evidence on teacher training should be a major embarrassment for these institutions who constantly ask for more — more years, more resources, more influence. Hattie (2009, pp. 126–7)

Hattie did, however, identify elements of teacher training that have larger effects on student learning, in particular microteaching, which involves 'student-teachers conducting (mini) lessons to a small group of students … and then engaging in post-discussions about the lessons' (Hattie 2009, p. 112). This finding suggests that practicum is important and should form part of trainer and assessor teaching qualification — a topic addressed in chapter 10.

In terms of higher-level qualifications, Hanushek and Rivkin (2006), in a review of research relevant to teacher labour markets, identified 34 high-quality estimates (from a pool of 170) of the impact of teachers holding advanced degrees on school students' achievement.[3,4] None of these estimates pointed to a positive relationship.

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3 High-quality estimates use value-added models (that is, models that seek to explain the change in a student's test scores over the course of a year) and data on individual students from single US states.

4 The authors do not explicitly state that the advanced degrees included in the studies that they review are in education. However, they do state that 'advanced degrees invariably lead to higher teacher salaries and … are required for full certification in a number of states' (Hanushek and Rivkin 2006, p. 11). It could be concluded, therefore, that whether the degrees are in teaching or other subject areas, the expectation is that they will enhance teaching performance.

(Three indicated that the relationship was negative. The rest were not statistically significant.)

Evidence on the impact of teachers' years of experience on student achievement was also assessed by Hanushek and Rivkin (2006), who drew a less definitive conclusion than Goe (2007). They located 206 estimates of the effect of teacher experience on student performance, 37 of which were judged to be high quality. Of these, only 41 per cent were statistically significant and positive. More than half were not statistically significant. They conclude that, although the evidence for a link between teacher experience and student achievement is more positive than for other teacher characteristics, 'the overall picture is not that strong' (p. 11).

Professional development

There is little quality empirical evidence about the effects of PD for teachers on student achievement. As Hattie (2009) notes, much of the research is about the effects of PD on teachers. In relation to this, one study cited by Hattie concluded that:

> The four types of instruction found to be most effective on teacher knowledge and behaviour were: observation of actual classroom methods; microteaching; video/audio feedback; and practice. (p. 120)

This provides further support for the importance of practicum, noted previously. Hattie (pp. 120–21) also cites a review of 72 studies from which it was concluded that PD is more likely to be effective when:

- learning opportunities occur over an extended period
- it involves external experts
- teachers are sufficiently engaged — so that knowledge and skills acquisition happens
- it challenges teachers' prevailing discourse and conceptions about learning
- it was supported by school leaders.

Teachers talking to teachers about teaching was necessary but not sufficient. Conversations of this type were more effective, for example, when teachers were challenging problematic beliefs. Finally, 'funding, release time and whether the involvement was voluntary or compulsory were unrelated to influences on student outcomes' (Hattie 2009, p. 121).

Other observable characteristics of teachers

Hanushek and Rivkin (2006) also considered the evidence on the link between teachers' scores on tests of achievement and student achievement. Of nine high quality estimates, six found no statistically significant relationship. A positive link came through in two statistically significant estimates. One study found a negative relationship. They concluded that: the evidence is far from overwhelming and 'even when significant, teacher tests capture just a small portion of the overall variation in teacher effectiveness' (p. 14).

The US National Board for Professional Teaching Standards (NBPTS) runs a voluntary certification scheme for school teachers. The scheme provides certification over and above that required by most US states before someone is permitted to teach. According to various studies, the process of NBPTS certification does not enhance teacher productivity, although more able teachers tend to seek certification.

Commentators have pointed to the work of Shulman in support of a view that teachers' knowledge of their subject matter, and of how to teach it, is important to student achievement (for example, Wheelahan and Moodie 2010). Hattie (2009), however, cast doubt on the representativeness of this view:

> If there were a large and consistent set of studies showing the power of teacher subject matter knowledge/pedagogical knowledge on subsequent student outcomes, it would seem that it should be well cited and not elusive to find. (p. 113)

Nonetheless, Hattie (2009) labelled the lack of evidence that subject matter knowledge affects student learning 'a conundrum'. Other researchers have been slightly more positive:

> There is one aspect of teacher quality where a consensus across studies has clearly emerged: the effects of teachers with degrees in maths and appropriate certifications [in maths teaching] … appear to be strongly and consistently related to student achievement in mathematics … Similar findings were *not* apparent for other subjects … [Teacher] experience [also] matters, but it contributes differentially *only* in the first four or five years of teaching. (Goe 2007, pp. 2–3)

The importance of both subject matter knowledge and subject-specific pedagogical knowledge are clearly areas that merit research. As Hattie suggests, research into how teachers who lack subject knowledge nevertheless can have positive effects on student learning might be a promising avenue for inquiry.

Australian VET sector evidence

As noted above, Australian evidence on the links between teacher qualifications and student achievement is limited.

Seddon et al. (2004) surveyed Victorian TAFE teachers' and managers' attitudes to education qualifications. They concluded that '[t]here is acknowledgment that education qualifications cannot guarantee teaching capability but, other things being equal, they contribute to teaching quality' (p. 8). However, this research did not attempt to empirically estimate the relationship between teaching qualifications and student achievement.

John Mitchell and Associates, and JMA Analytics (sub. DR102) reported results from an analysis of the relationship between practitioners' qualifications and their self-rated levels of foundation training and assessment skills. The relationship was positive, however, the analysis did not control for other factors that might explain this relationship — in particular, experience. It is likely that trainers and assessors with higher-level qualifications also have more experience. Nor did the research examine the link between qualifications and student achievement.

The variation in qualification requirements for progression by VET trainers and assessors, in tandem with the homogeneity of student outcomes (NCVER 2010d, table 4), across states and territories, is circumstantial evidence that teaching qualifications have no discernible impact on student achievement in the Australian VET sector. The change in requirements for permanent VET teachers in New South Wales in 2008, and Tasmania's recent step to mandate a Degree qualification, represent opportunities to gather and analyse data on this relationship.

Quality evidence on the links between teachers' experience and student outcomes is especially pertinent to the Australian VET sector, where factors like casualisation and rapid private RTO growth might mean that a sizeable proportion of trainers and assessors do not have much experience within the sector. As discussed in chapter 3, 58 per cent of trainers and assessors in private RTOs who responded to a recent survey had been employed in the VET sector for less than five years. The links between trainer and assessor experience and student achievement should be a priority for Australian VET research.

Conclusions

In summary, the literature on the links between teacher qualifications and student achievement points to two conclusions:

- there is a strong need for research of this topic for the VET sector

- any move to require higher-level qualifications for VET teachers, trainers and assessors should be made with caution.

RECOMMENDATION 9.1

The National Centre for Vocational Education Research should ensure that it collects all the information required to allow the critical determinants of quality training and assessment to be investigated quantitatively. Once that information is available, the Centre should conduct quantitative analysis of the relationship between trainers' and assessors' characteristics and student outcomes, including by level of qualification delivered.

9.4 Workforce capability gaps?

A range of factors driving change in the VET sector are having an impact on the expectations placed on the VET workforce (chapter 6). They imply a need for capability in a number of areas, including: support for learners who might experience disadvantage; delivery of higher-level qualifications; use of information and communication technologies (ICT) in delivery; working within a more contestable and commercial environment; assessment via Recognition of Prior Learning (RPL) or Recognition of Current Competency (RCC); delivery within workplaces; and management and leadership skills.

Current, and potential future, capability needs in each of these areas are considered below. Indigenous learners' needs are discussed both in the context of learners who experience disadvantage, and in a stand-alone section.

Capability in delivery to learners who experience disadvantage

A large, and increasing, proportion of the VET student population has characteristics that suggest economic or social disadvantage (chapter 6). Using data from the *2009 Student Outcomes Survey*, the Commission estimates that about 60 per cent of students who completed publicly-funded VET in 2009 (as graduates or module completers) had at least one of the following characteristics:

- Indigenous Australian

- spoke a language other than English at home

- disability

- prior education of less than Year 12 (excluding students aged under 20)

- low socio-economic status (defined as living in the bottom 40 per cent of statistical local areas, ranked by socio-economic status).

Learners from backgrounds associated with disadvantage are the norm in the VET sector. It is part of the VET mandate to assist such students. As the NSW Government noted, for example, the *Technical and Further Education Commission Act 1990* (NSW) requires TAFE NSW to:

> … provide educationally or vocationally disadvantaged groups (such as women, Aboriginal people, persons of non-English speaking background, persons with disabilities and persons in rural areas) with access to technical and further education services, including a range of appropriate specialised services. (sub. 57, p. 10)

More generally, equity and access principles are the focus of Standard 2 of AQTF 2010. Among its seven elements are requirements that:

> 2.1 The RTO establishes the needs of clients, and delivers services to meet these needs …
>
> 2.5 Learners receive training, assessment and support services that meet their individual needs. (Australian Government 2010a, p. 6)

Reflecting this Standard, skill and knowledge requirements relating to equity and access considerations are set out in the TAE10 Training Package. Foundation competencies in catering to individual learner groups are covered in core units, and deeper competency development can be pursued through electives. The Certificate IV in TAA elective unit *Address language, literacy and numeracy skills* (TAELLN401A) is a case in point. Furthermore, IBSA has addressed a gap in qualifications for language, literacy and numeracy (LLN) specialists through inclusion of a Vocational Graduate Certificate and a Vocational Graduate Diploma in language, literacy and numeracy within the TAE10 Training Package.

Members of disadvantaged groups tend to require more support from the VET workforce. For example, in New South Wales, disadvantaged students place:

> … a wide range of demands on the TAFE … workforce in relation to, for example: counselling and advisory services; foundational and employability skills programs; community liaison and partnerships; intermediate pathways for at-risk groups; targeted resources to support engagement for particular student backgrounds; and customising programs to meet an extremely diverse range of individual needs. (NSW Government, sub. 57, p. 10)

Although some indicators for these groups are less positive than for other students, a range of factors are at play. Indigenous students and students with disability, for example, are overrepresented at lower qualification levels. However, students from these backgrounds tend to have relatively low educational attainment on entry to VET. Similarly, module completion rates for students from these groups lag those of

other students (chapter 5). However, data on the reasons that students from these groups do not continue with training indicate that factors outside the control of the VET workforce are significant (table D.14). One quarter of students with disability, for example, nominated illness as the main reason for not completing training in which they enrolled. Just over 50 per cent of Indigenous students nominated personal reasons (including illness).

Melbourne Graduate School of Education had concerns that the prevalence of personal or health-related reasons might not properly represent the underlying causes of non-completion:

> Students and their institutions are likely to mistakenly accept on face value that students discontinue due to factors in students' lives, rather than the way in which curriculum excludes such students and less than inclusive institutional arrangements. (sub. DR65, p. 5)

Yet, data on students' opinions of their VET experience suggest that over 90 per cent of students for nearly all disadvantaged groups report that they would recommend their training, or the institution at which they studied, to others (table 9.3).

Table 9.3   **Percentage of students who would recommend their training or institution to others by equity group, 2009**

	Indigenous	Speaks a language other than English at home[a]	Disability	Highest prior level of education less than Year 12	All students
	%	%	%	%	%
Would recommend training to others					
Graduates	96.4	92.9	93.2	95.9	94.2
Module completers	89.0	88.4	86.3	91.1	89.8
Would recommend institution to others					
Graduates	94.5	93.2	92.1	94.8	93.1
Module completers	90.0	90.2	88.4	92.9	91.9

[a] Excluding Indigenous students.

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

In addition, on the whole, data from the publicly-funded VET sector on students' opinions about different aspects of their training do not reveal marked differences between student groups, and students are generally very positive (tables D.11 and D.12). There are three noteworthy exceptions to this message:

- Indigenous graduates are more positive about their experiences than their peers. Nearly 70 per cent of Indigenous graduates, for example, *strongly* agreed with

the statement 'my instructors treated me with respect' and 58 per cent with 'my instructors understood my learning needs', in contrast with 63 and 49 per cent of all graduates, respectively.[5]

- Module completers with disability were rather less positive than other students. For example, eleven per cent disagreed with each of the statements 'my instructors understood my learning needs', and 'I received useful feedback on my assessment', in contrast with 6 per cent and 8 per cent of all students respectively. (These were the least positive responses identified within the opinions on teaching and assessment.)

- Students from groups that tend to experience disadvantage appear to get more out of their training than do other students. Responses for graduates who agree or strongly agree with a range of statements about their generic skill and learning experiences in VET are presented in table 9.4. (Similar patterns are observed for module completers.) For example, 85 per cent of graduates whose highest prior level of education was Year 12, reported that they were more confident in their ability to learn as a result of their training, in contrast with 78 per cent of all students.

The data do not suggest, overall, that students from cohorts that might experience disadvantage are markedly less satisfied with their VET experiences than their peers.

Study participants pointed to possible skill gaps relevant to disadvantaged learners among VET trainers and assessors:

Ten years have passed since the VET blueprints for Indigenous Australians and people with a disability were first agreed by Ministers. There are still concerns about whether the VET workforce has the necessary skills to meet the needs of disadvantaged learners … (National VET Equity Advisory Council, sub. DR75, p. 48)

Within the VET workforce itself there are questions about the standards of literacy and numeracy of some staff. Where this is the case with lecturers, it means that they also lack the capability to assist students improve their language and literacy skills to a standard that will enable them to progress to and complete higher level qualifications. (WA Department of Training and Workforce Development, sub. 26, p. 2)

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[5] Fewer than 5 per cent of Indigenous graduates disagreed with these statements.

Table 9.4 **Graduates who agree or strongly agree about aspects of their generic skill and learning experiences, 2009 (per cent)**

	Indigenous	Speaks a language other than English at home[a]	Disability	Highest prior level of education less than Year 12	All students
	%	%	%	%	%
My training developed my problem solving skills	79.7	79.7	72.9	77.5	70.7
My training helped me develop my ability to work as a team member	81.5	80.6	72.5	77.0	72.6
My training improved my skills in written communication	71.6	73.0	64.4	67.2	61.4
My training helped me to develop the ability to plan my own work	76.9	77.6	72.4	76.4	72.0
As a result of my training, I feel more confident about tackling unfamiliar problems	83.5	80.6	75.2	81.0	76.8
My training has made me more confident about my ability to learn	84.6	84.8	78.5	84.5	78.2
As a result of my training, I am more positive about achieving my goals	83.8	82.8	76.1	82.5	77.3
My training has helped me think about new opportunities in life	86.0	83.2	78.4	80.6	78.3
Overall I was satisfied with the quality of this training	92.1	89.5	87.1	90.9	89.1

a Excluding Indigenous students.

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Study participants also observed that some RTOs are experiencing difficulties in recruiting specialist language, literacy and numeracy practitioners (for example, NSW Government, sub. DR82) — a capacity issue.

As noted in chapter 6, rates of VET participation for members of equity groups are expected to increase. Reflecting this, study participants pointed to a need for even greater capability in the future (box 9.6).

Participants pointed to a need for enhanced skills among trainers and assessors …

> The pressure on TAFE (and vocational education) to 'fix' broad social and economic problems and the obligation to respond to public policy goals/settings … requires more flexible and adaptive teachers with a broad range of inclusive teaching skills in addition to specific content knowledge and industry experience. (Joint TAFE Associations, sub. 48, p. 5)

> … our teaching staff, who do already have skills in teaching students with disadvantaged backgrounds, will need to enhance those skills and accept that this is a 'normal' part of their teaching across a broader range of programs and levels (which can be compared with having international students in class — teachers need to adapt and tailor their methodologies and pedagogy). (The Gordon, sub. 9, p. 9)

> … an increasingly diverse society necessitates an expanded focus on teaching with cultural inclusion and in diverse contexts (including issues specific to Aboriginal and Torres Strait Islander students). (Australian Education Union, sub. 34, p. 41)

… and more specialist support.

> The VET workforce needs to have the capability to recognise and deal with learners whose needs are complex — who may have mental health issues, who may need literacy and numeracy support, who need specialist assistive technologies — the VET trainer or assessor needs access to expertise and in the ideal, embedded world, specialists would focus more on teacher capability and much less on direct student services. (National VET Equity Advisory Council, sub. 58, p. 5)

> We also need to increase the availability of high quality, well-trained adult LNN practitioners who can operate effectively in a diverse range of environments, to support a diverse clientele. (DEEWR, sub. DR110, p. 3)

> Providers will … need to develop strategic partnerships with service providers who can provide the wrap around support services required by disadvantaged and marginalised learners. (SA Training and Skills Commission, sub. 51, p. 8)

Formal opportunities to develop at least foundation capability in this area are provided by the Certificate IV in TAA, and specialist qualification offerings are now available. As discussed further in chapter 10, opportunities for PD beyond the Certificate IV should also address this need, enabling individuals' skill gaps in this area to be identified and addressed, as required.

Although the evidence does not suggest that the VET workforce *currently* has significant capability gaps that impede its ability to address the needs of the vast majority of students who might experience disadvantage, the capability of the workforce will be further challenged in the future. The Commission supports the National VET Equity Advisory Council's (NVEAC's) recommendation that 'an outcomes framework to measure the progress and achievements of disadvantaged learners in VET' should be developed (sub. DR75, p. 43).

Challenges relating to teaching and training Indigenous students

Chapter 8 discusses possible measures to increase the size of the Indigenous VET workforce, through recruiting and retaining more Indigenous people. As noted, increasing the size of the Indigenous workforce is an important factor in improving outcomes for Indigenous students. This section elaborates on this issue, and canvasses measures to overcome the capability challenges of the broader VET workforce in this area.

Overall, Indigenous Australians are at a marked disadvantage, compared with non-Indigenous Australians. Life expectancy is significantly shorter for Indigenous people (by about 10 years). Additionally, education and employment outcomes are worse for Indigenous Australians. Different aspects of disadvantage are often interrelated. For example, there are strong links between health, education and employment outcomes. Higher levels of education can lead to improved employment outcomes, which can in turn increase income and improve other outcomes, such as health status. Because the VET sector provides a pathway for Indigenous people into employment and higher education, it can ultimately contribute to a reduction in the gaps between Indigenous and non-Indigenous Australians in other areas, such as health.

An example of the potential employment benefits to Indigenous Australians from VET participation, in this case, to build accountancy expertise, is presented in box 9.7.

Through a stocktake of research on good practice, Miller (2005) identified seven key factors that lead to positive and improved outcomes from VET for Indigenous people. The single most important factor was Indigenous community ownership of, and involvement in, training for Indigenous students. The other factors were:

- the incorporation of Indigenous identities, cultures, knowledge and values
- the establishment of 'true' partnerships
- flexibility in course design, content and delivery
- quality staff and committed advocacy
- extensive student support services
- appropriate funding that allows for sustainability.

These factors are related in several ways to the identity, culture and capability of VET trainers and assessors.

Box 9.7　　**Indigenous representation in the accounting profession**

Lombardi and Clayton (2006) commented that, while Indigenous representation was increasing in many professions, they could only locate nine Indigenous Australians in a population of approximately 150 000 accountants in Australia. The authors discussed four barriers that need to be overcome to increase the number of Indigenous accountants: education barriers; the poor image of accountants; lack of Indigenous role models in the profession; and the lack of engagement with Indigenous communities while working in 'mainstream' accounting roles.

This lack of qualified accountants limits opportunities for Indigenous people, communities and organisations:

> A lack of qualified business professionals in the Aboriginal community, like Certified Practicing Accountants and Chartered Accountants … means the capabilities of the Indigenous community to interpret, critically analyse and respond to complex governance, education and business issues … is severely compromised. (Andrew McIntosh CPA, sub. DR112, p.1)

> I have a website, 'Indigenous Accountants Rock.com.au' and I routinely receive phone calls from 1 of the 5,000 existing prosperous Indigenous Businesses in Australia or other businesses inquiring about Indigenous Accountants. ... I can never help any of my repeated callers. (Adrian Williams, sub. 111, p. 2)

Greater participation in accounting and other business courses among Indigenous people is critical to improving governance and leadership, one of seven strategic areas of focus for improving outcomes for Indigenous Australians (SCRGSP 2009).

As in other professions, qualifications play a part in career progression for accountants. The VET sector and its workforce play a critical role in providing Certificate- and Diploma-level accounting courses, and have a role in explaining and promoting pathways into employment and higher-level qualifications to accounting students. These pathways might be especially important for Indigenous students, since many Indigenous people have low levels of school education and often begin post-secondary education studying Certificate-level courses in the VET sector.

Andrew McIntosh CPA noted that professional accounting bodies should be encouraged to partner with the VET sector and its workforce to develop pathways to professional membership (sub. DR112, p.1).

As discussed in chapter 5, many Indigenous students lack foundation skills. This implies that LLN tuition is often their first experience of VET. McGlusky and Thaker (2006) produced a 'Good Practice Guide' for literacy support for Indigenous VET students. The guide noted the importance of Indigenous input (both formal and informal) regarding design, development and delivery at all stages. The guide also noted the importance of collaboration with Indigenous staff and the local Indigenous community. Other research has noted the importance of VET providers engaging with the local Indigenous community (Anderson 2009).

Indigenous students can also have their first exposure to VET via the VET-in-Schools (VETiS) program:

> A recent report by the National Centre for Vocational Education Research (NCVER) has highlighted how participation rates in VET in Schools decrease with geographic isolation and for particular learner groups. Framework experience in the Northern Territory indicates that VET in Schools has great potential to help Indigenous learners and learners in outer regional and remote areas. (TVET, sub. 56, p. 9)

It is important, therefore, that both LLN and VETiS content and delivery have the desired characteristics of Indigenous input, community involvement and cultural awareness, identified previously. Dockery (2009) found that cultural attachment can have an enabling effect for Indigenous students and that there was not a trade off between cultural attachment and success in education.

VET providers also need to aware of the diversity of Indigenous students. Balatti et al. (2004) found that an increasing number of Indigenous students were studying in mainstream programs in TAFEs, but that they were getting less support than Indigenous students in Indigenous training units. It was evident that relationships between Indigenous training units and the rest of the institute needed to be improved, and, more generally, that cross cultural skills for all staff needed to be developed. VET providers also needed to understand that Indigenous students could comprise a number of groups with different needs, expectations and attachments.

Some states and territories have developed explicit strategies to increase cultural awareness in the VET sector. An example is Victoria's Wurreker Strategy (box 9.8).

At the provider level, many have explicit overarching Indigenous policies, involving assistance to Indigenous students, via support for Indigenous teachers. An example is the North Coast TAFE Institute (box 9.9).

Information sharing is needed to ensure adequate Indigenous capability

Each RTO seeking to improve its workforce's capability in teaching and training Indigenous students should consider lessons learnt from programs in other RTOs but there seem to be bottlenecks in the sharing of learnings. As the NVEAC noted:

> Time and time again we see positive policy statements, but the implementation is failing to translate into real change. We see clever pilot programs but these are not transforming into new design and embedded good practice. (NVEAC 2011a, p. 22)

> Previous opportunities to embed aspects of good practice resulting from pilot programs with finite funding have failed. … The time is right to change the approach and to now capitalise on the investments and accrued wisdom and experience realised from such programs; this can be achieved by implementing a knowledge-sharing and

dissemination strategy that ensures good practice influences and drives continuous improvement in policy development and implementation. (NVEAC 2011a, p. 30)

Box 9.8   Wurreker Strategy

The Wurreker Strategy was developed by the Victorian Aboriginal Education Association Incorporated (VAEAI) in partnership with the State Government. It was launched in July 2000. The Strategy was developed because the VET sector was not addressing the training needs and aspirations of Koorie people. There were no clear pathways from training to employment. Registered Training Organisations, including TAFE providers, were offering programs that did not match the employment opportunities available to Koorie students.

In Victoria, every TAFE provider is now required to maintain a *Wurreker Implementation Plan* to increase the participation and success of Koorie students in education and training. As part of the implementation of Wurreker, each Institute is required to achieve progress towards the Victorian Government Koorie employment target. Each TAFE Board is responsible for the achievement of the outcomes contained in the plan and required to report against these outcomes. The outcomes include:

- employing more Indigenous people

- ensuring professional development is available for Indigenous staff

- providing cultural awareness training opportunities for Indigenous and non-Indigenous staff

- increasing module completion rates and course completion rates for Koorie students

- increasing enrolments by Koorie students in higher-level VET qualifications (Certificate III and above).

Sources: VAEAI (nd); Joint submission by the Victorian TAFE Association and TAFE Directors Australia, sub. DR94, p. 11.

In 2010, the NVEAC began collecting 'good practice case studies' of VET delivery to learners who experience disadvantage, including Indigenous students. The examples the NVEAC chose have been trialled and evaluated (NVEAC 2011b).

Box 9.9   **North Coast TAFE Institute Indigenous initiatives**

The North Coast TAFE Institute has undertaken a number of initiatives to provide a supportive environment for Aboriginal students. The Institute works towards a 2020 Vision for Aboriginal Education and Training, which is based on a triple bottom line of contributing to the cultural strength, social wellbeing and economic security of Aboriginal communities in the region. In 2009, the Institute developed a Reconciliation Action Plan, which was launched in Reconciliation Week 2009.

To support North Coast TAFE's commitment to social inclusion, a new role of Aboriginal Teacher Coach will be trialled in 2011. The purpose of this new role will be to provide flexible support to Aboriginal learners to support successful study outcomes, work placements, completions and transitions into further study or employment opportunities. The program will be evaluated at the end of the trial.

North Coast TAFE already employs:

- *Aboriginal Vocational Initiatives Consultants*, who liaise with communities, employers and other service providers to identify training needs for Aboriginal people and communities. The Consultants contribute to developing Aboriginal Cultural Capability across the organisation, and also seek external funding from a range of sources

- *Aboriginal Learning Liaison Officers*, who provide advice and referrals to support Aboriginal students enrolled in North Coast TAFE. These officers work with a range of campus-based staff to provide support, promote courses in Aboriginal communities and contribute to campus-based activities to promote Aboriginal cultures and identities to all students and staff

The new Aboriginal Teacher Coach's role will be different. Recruits will be employed to provide educational support to Aboriginal students, and be employed as part-time casual teachers.

Source: Aloise, M., Director, Strategy and Support, North Coast Institute, pers. comm., 18 March 2011.

This work holds important lessons to the VET sector about good practice. The NVEAC should extend this work and gather more information about Indigenous programs in the VET sector.[6] The NVEAC should develop and disseminate a database of evaluation reports on these programs. This database should not be restricted to examples of 'good practice'. RTOs, and the VET sector more broadly, can also learn from programs that have encountered problems or failed.

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6   Indigenous programs in place in other education sectors, particularly the higher education sector, can also provide useful lessons. The NVEAC expressed support for 'collaboration with the Indigenous Higher Education Advisory Council to learn from and build on strategies being considered within the [Higher Education] workforce where similar capability concerns have been identified' (NVEAC, sub. DR75, pp. 9–10).

Many Registered Training Organisations have programs in place to assist Indigenous students, including through the provision of culturally aware tuition. However, few programs have been evaluated, and not all evaluation reports have been made publicly available.

The National VET Equity Advisory Council should establish a publicly-available database of evaluation reports on programs directed at assisting Indigenous students. This database would provide information on what works well and what does not. This information would assist Registered Training Organisations with developing successful Indigenous programs and would improve the VET workforce's capability in this area.

Capability in delivering higher level qualifications

A number of study participants have suggested that delivery of higher-level qualifications requires higher-level teaching skills (box 9.10). In a similar vein, John Mitchell and Associates, and JMA Analytics, concluded that the sector has a shortage of learning and assessment specialists (sub. DR102).

In terms of students' outcomes and their assessment of their training, indicators from the publicly-funded VET sector differ little across qualification levels for those who graduate, but some that relate to teaching decline with higher-level qualifications for module completers (chapter 5). For example, while 70 per cent of the Diploma and above cohort agreed with the statement 'my instructors understood my learning needs', the response was higher (at 77 per cent) for those who enrolled in a Certificate III qualification (table D.10). Three quarters agreed that their instructors communicated the subject content effectively, compared to 81 per cent of the Certificate III cohort.

It is noteworthy that about 90 per cent of all students agreed with the statement 'my instructors had a thorough knowledge of the subject content'. This suggests that students are relatively positive about their teachers' industry currency.

> **Box 9.10   Participants' views on higher-level qualifications and teaching skills**
>
> In general the TAFE workforce is reasonably well qualified however the trend towards higher level qualifications will have an impact on the entry level qualifications of VET practitioners and on their continuing professional development … A shift to higher level qualifications may also bring with it a move to emphasise teaching skills over technical skills; and with more enterprise-based delivery the technical expertise may largely be sourced from the workplace (particularly in relation to new or emerging industries/technologies) with the VET practitioner providing their specialist skills in education and training. (Joint TAFE Associations, sub. 48, pp. 22 and 32)
>
> At higher levels more complex competencies and job roles are covered and often a basic training approach is still used. Higher order teaching skills such as scenario/problem based learning are often more appropriate. Therefore there could be some requirement that if you deliver and assess at higher levels the teaching qualification and experience should be appropriate. (DFEEST, sub. 54, p. 15)
>
> The demand for higher level qualifications will drive a need for higher level qualifications within the VET workforce. Serious consideration will need to be given to whether a Certificate IV level minimum qualification is adequate to provide a professional workforce with the capacity to deliver higher level qualifications that meet the needs of industry. (Minerals Council of Australia, sub. 23, p. 10)
>
> … it is not uncommon to have university graduates using the higher level VET skills as training outcomes for professional development to enhance their ability to do their job … By implication it … requires … the VET workforce to have higher level VET teaching qualifications … (NSW Community Services and Health ITAB, sub. 38, p. 2)

Data also reveal that students who enrol in a Diploma or higher qualification are more likely than other students to discontinue their training. The *2009 Student Outcomes Survey* (NCVER 2009d) reveals that 20 per cent of this cohort discontinued, against 12 per cent for students who enrolled in a Certificate III. One quarter of those who discontinued a higher-level enrolment nominated 'the training was not what I expected' as their main reason, in contrast with 5 per cent of those who discontinued Certificate III study.

Many factors potentially contribute to the gap in outcomes and opinions by qualification level for module completers. The detailed data suggest that the capability of trainers and assessors is a key contributor.

As VET providers increase delivery of higher-education qualifications, the question of whether or not their staff should also hold higher-education qualifications above the level at which they are delivering will inevitably arise.

Arguably, higher-education lecturers demonstrate mastery of their subject matter via formal qualifications and research activity, while VET trainers and assessors do the same through experience in industry and other activities that continue to develop

their capability, including PD. On the latter point, the TAFE Development Centre has noted unprecedented demand for professional learning programs relevant to the delivery of higher-education qualifications (sub. DR92).

In summary, there is tentative evidence of capability gaps relating to delivery of higher-level qualifications. This might point to the need for higher-level delivery skills. However, as previously discussed, data that would support rigorous assessment of the link between teacher characteristics and student outcomes at different qualification levels have not been located. Research is needed into the factors that drive quality student outcomes at different qualification levels, including, the role of higher-level qualifications.

Capability in the use of ICT in VET delivery

Technological change will have significant implications for the VET sector (chapter 6). As IBSA noted:

> These sorts of developments, if they occur at anything like the rate predicted, will place significant pressure on the VET workforce to upgrade their own IT and related skills. In fact many technological developments in industry will require a greater engagement with, understanding of and competence in the digital economy by the VET workforce. (sub. 8, p. 6)

The use of ICT in the delivery of education and training is significant, and has been growing (chapter 6). Study participants were overwhelmingly of the view that this trend will continue. They pointed to the importance of ICT to VET delivery, and acknowledged that it placed extra demands on the workforce. While basic ICT skills relevant to training and assessment are covered in core units in the Certificate IV, training in more advanced skills sits in electives and the Diploma. Effective flexible delivery requires higher level skills:

> I now realise that unpacking a Training Package to do that sort of flexible delivery is not something to give to novices … you actually need to put the foundation skills into somebody before you ask them to use high level skills. (Mitchell 2010a, p. 5)

Study participants presented evidence that ICT skills are an area of significant capability gap for the workforce (box 9.11).

Similarly, the NSW Government also noted that the new information technology training packages introduce emergent technologies that many trainers and assessors delivering in that field will not have been exposed to (sub. DR82, p. 10).

In summary, there is sufficient evidence to conclude that the VET workforce has capability gaps relating to the use of ICT in training and assessment.

Box 9.11 **Views on the use of ICT in VET delivery**

ICT is fundamental to VET teaching …

Practitioners require three sets of skills in VET — currency of industry knowledge, adult learning capabilities and integration of technology into learning. New entrants tend to come into VET strong in either the first or the second of these. The third which is fundamental to their teaching requires mentoring and professional development. (TVET Australia, sub. 56, p. 7)

… and its use in delivery places additional demands on VET workers …

E-learning, and specifically on-line teaching, is different to traditional classroom teaching and is more demanding, more complex and requires greater effort to teach. (AEU, sub. 34, p. 7)

ICT enabled learning will likely increase the knowledge and skill requirements of some VET practitioners. (TVET Australia, sub. 56, p. 10)

Our research shows how e-learning is a specialist learning and assessment skill. This means that to master e-learning, a VET practitioner must have previously mastered a set of core teaching and assessment skills. (John Mitchell and Associates, and JMA Analytics, sub. 37, p. 33)

The VET practitioner will need high-level facilitation skills supported by technical skills in using online technologies. It may be the case that the one individual will have all the skills to do this, however it is more likely that VET practitioners will work in teams of people that collectively share these skills. (Joint TAFE Associations, sub. 48, p. 17)

… but the workforce has capability gaps in this area …

… in many cases VET teachers and trainers are on the back-foot when it comes to the application of technology, responding to changes in learner behaviour rather than driving it. (Flexible Learning Advisory Group, sub. DR99, p. 2)

In the short to medium term the lack of these technical skills is limiting the uptake of online delivery in the VET sector. (Joint TAFE Associations, sub. 48, p. 17)

When asked to rate themselves in relation to over 55 skills, the respondents [to a survey of VET practitioners] rated their e-learning skills as their absolutely lowest … They also indicated that, of all the professional development on offer in the sector, their highest demand for VET professional development is for developing skills for designing and delivering e-learning … Ward comments that 'these two results indicate that, as a whole, Australian TAFE teachers perceive e-learning skills as the area in which they are most lacking'. (John Mitchell and Associates, and JMA Analytics, sub. 37, p. 33)

… despite investment through the Australian Flexible Learning Framework.

The first Framework Strategy focused on raising awareness of the potential of e-learning and starting to build capability. The second Framework Strategy … continued this work and focused on engaging with key target groups. The third Framework Strategy, for the period 2008–2011, is focusing on embedding e-learning in training providers and businesses. Together these strategies have created a considerable infrastructure and a sound foundation for e-learning across the national training system. (TVET Australia, sub. 56, p. 1)

Capability in working in a more commercially-oriented environment

A more contestable and/or demand-driven environment points to an increased need for skills in identifying and catering to client needs — whether on a government-funded or fee-for-service basis (chapters 4 and 6). The Commission has not located data on the proportion of delivery that reflects this type of activity.

John Mitchell and Associates, and JMA Analytics, defined commercial specialists as practitioners who are:

> … skilled in writing tender proposals, pitching training products to business clients, customising the product to suit a particular enterprise, maintaining good client relationships over a period of time and ensuring there is a healthy profit margin at the end of the service delivery. (sub. 37, p. 29)

Some of these skills would be required of VET practitioners delivering training tailored to the needs of an individual client, irrespective of the funding mode. However, in a number of instances, such as industry partnerships, the ability of clients to influence the nature and mode of delivery can be greater where fee-for-service is involved.

Although it is clear that entrepreneurial and commercial skills will be increasingly needed in the future, it is not clear from study participants that the workforce currently has a capability gap in this area (box 9.12).

Box 9.12   Is the sector well-placed to respond to commercial pressures?

According to The Gordon (sub. 9), delivery in a more contestable environment requires a workforce that is: business savvy; professional; and consultant or advisor-like. Although there is evidence that these skills might be relatively common in the workforce …

> Surprisingly, the research by JMA Analytics has revealed that the level of commercial skills of VET practitioners is high, so stronger commercial pressures will be handled with some assurance. (John Mitchell and Associates, and JMA Analytics, sub. 37, p. 11)

> TAFE SA Regional found through a recent exercise to measure practitioner capability, that its workforce contained sufficient commercial specialists, but lacked specialist expertise in learning and assessment. (Janek, D., TAFE SA Regional, pers. comm., 19 October 2010)

… there is a sense from some that they need to become more broadly held.

> A second immediate issue for TAFE is that our workforce needs to get up to speed rapidly with skills and knowledge about the commercial market for vocational education and training – some respond positively to this challenge, others feel that this is not what they signed up for when they decided to become a TAFE teacher. (The Gordon, sub. 9, p. 9)

It is also not clear that a gap in the workforce's capability is likely to develop in the future. Commercial pressures have been increasing steadily for many years (chapter 4). This might have led to the development of staff recruitment and development processes that have resulted in many in the workforce being reasonably well-placed to respond to increased commercial pressures.

Capability in recognition of prior learning and current competence

As discussed in chapter 6, the percentage of subject enrolments in which students received RPL almost doubled to 4.9 per cent between 2000 and 2009. Despite this growth, a significant proportion of VET students report that they had skills and experience related to their training on enrolment which their provider did not offer to assess (table B.24). Some evidence suggests that this outcome is due, at least in part, to capability gaps in the VET workforce.

> At present, RPL and RCC are not done well, and the complexity of these processes acts as a barrier to the gaining of qualifications via these means … The VET sector needs to develop effective recognition processes that apply fair practices and provide valid pathways for skills recognition. Then VET practitioners need to be up-skilled in the use of these processes so that they are competent and confident in applying these processes. (Manufacturing Skills Australia, sub. 22, p. 10)

Input from other participants indicates that RPL and RCC have characteristics that place higher demands on assessors (box 9.13).

These characteristics suggest that RPL and RCC are best performed by trainers and assessors with significant experience within the VET sector. The relatively short tenures of many VET practitioners, particularly in private RTOs (chapter 3), suggest that overall, the workforce might not have adequate capability for effective RPL and RCC. This gap was discussed by some study participants (for example, the NSW Government, sub. DR82) and illustrated by the TAFE Development Centre's statement that '[RPL and RCC] represents one of the most pressing PD issues currently being experienced by the TDC' (sub. DR92, p. 10).

Other capability gaps

Capability in employment-based delivery

Between 2000 and 2009, employment- or workplace-based VET expanded significantly from 5 to 12 per cent of hours of delivery (table B.23). Study participants anticipated that this trend will continue (chapter 6). South Australia, for

example, has a target that delivery within the workplace comprise 25 per cent of total effort by 2012 (AEU, sub. 34, p. 34).

Box 9.13   Participants' views on skills for RPL and RCC

While acknowledging that RPL (and RCC) is simply a different assessment methodology, it requires practitioners applying their assessment skills in different contexts … A key to the RPL process is ensuring that practitioners use their professional judgement in confirming that the evidence presented satisfies the assessment requirements and that the individual is competent (or not) in the task. Being confident to use their professional judgement in different settings and in line with industry expectations about the skills and knowledge required is a higher order skill … The assessor needs to have a thorough understanding of the qualification and the ability to interpret what they are seeing, and then map the integrated/clustered tasks against a range of variables required to be deemed competent against a [Unit of Competence]. (Joint TAFE Associations, sub. 48, p. 24)

… a VET practitioner needs to have a sound foundation practice to make decisions about a straightforward RPL candidate but a practitioner needs a raft of skills to make professional judgements about candidates who present with complex portfolios of evidence. When faced with an RPL candidate who is not straightforward, the practitioner needs to be able to draw on previous experience and case studies. So this shift to a greater use of RPL will drive an increased level of VET practice. (John Mitchell and Associates, and JMA Analytics, sub. 37, p. 11)

The Gordon is moving to have a significant component of its delivery in industry and its initial delivery to the community underpinned by RPL and RCC … [one immediate implication is that it] needs to streamline its processes for RPL/RCC, including professional development for all teaching staff that 'sticks', and a clear understanding of the pedagogical, programmatic and funding issues if RPL/RCC becomes mainstream. (The Gordon, sub. 9, p. 10)

There is some evidence that employment-based delivery places additional skill requirements on VET practitioners:

> An increased uptake of … workplace assessment may also require lecturers and educational managers to acquire additional skills. (AEU, sub. 34, p. 35)

Furthermore, the NQC identified a need for the development of RTO staff to support more successful partnerships with industry (NQC 2009a). Study participants also identified this as an area of workforce capability gap:

> Public providers have been very slow to embrace work-based delivery … There needs to be a concerted effort to provide support to public RTOs to encourage work-based delivery through professional development and through the introduction of greater internal flexibility. (Ai Group, sub. DR88, p. 3)

> NSW audit activity would indicate that practice is poor for work-based delivery and the workforce needs to develop additional capability. (NSW Government, sub. DR82, p. 10)

In summary, there is evidence of a capability gap in relation to workplace-based delivery.

Leadership and management capability

Evidence from the Department of Education, Employment and Workplace Relations (DEEWR) survey (DEEWR 2010i) suggests that not all managers have the capability that they need to perform effectively. As discussed in chapter 3, that evidence shows the most common reason given for VET workers intending to leave the sector in the next 12 months to be poor management (nominated by 41 per cent of potential movers).

Study participants also identified leadership and management skills as a capability gap:

> The analysis of the nature of the VET workforce compared with the attributes desired by industry, learners and the practitioners themselves, suggests that the VET workforce for the service industries needs … increased levels of leadership and management skills. (Service Skills Australia, sub. 13, p. 95)

> Recent feedback from the sector regarding workforce development needs indicates a growing need for management development, particularly at senior educator and middle management levels where most VET managers have progressed from teaching careers into management positions and have not always had adequate leadership and management training and support. (TAFE Development Centre, sub. DR92, p. 10)

Recent research on VET leadership also indicates potential areas of focus for the development of VET leaders:

> … in many respects the concerns of leaders are only loosely aligned with the broader pressures confronting the VET sector — graduate outcomes, quality and education fundamentals. In broad terms, VET leaders are focused on input-side factors such as student numbers and funding. A challenge for the future involves developing a more outcomes-focused orientation, one centered on effective change implementation, on delivery, and on high-quality graduate outcomes. (Coates et al. 2010, p. 10)

FINDING 9.2

Considering the educational capabilities of the VET workforce:

- *the delivery of training and assessment to students who might experience disadvantage is an area of considerable exposure for the VET sector in the future*

- *there is considerable scope to improve the dissemination of lessons learnt from innovative programs directed at the needs of disadvantaged students in general, and Indigenous students in particular*

- *there is tentative evidence of capability gaps relating to delivery of higher-level qualifications*

- *there is evidence of a significant capability gap in information and communication technologies skills among the VET workforce*

- *there is evidence of a capability gap in the ability of some VET practitioners and enterprise trainers and assessors to assess Recognition of Prior Learning and Recognition of Current Competency*
- *there is evidence of capability gaps relating to workplace-based delivery*
- *there is evidence of capability gaps among VET managers and leaders.*

9.5 Industry currency

Industry currency is critical to the effective delivery of VET. A requirement that RTOs ensure that trainers can demonstrate, and continue to develop, their industry currency has part of the AQTF for many years. However, as noted above, changes to the AQTF in 2010, and the NQC Determination of 18 December 2009, seek to clarify these requirements.

Despite a longstanding recognition of the central role of industry currency in quality VET delivery, it does not appear to be well researched or understood.

> Industry currency is much discussed but little explored. (Professor Erica Smith, sub. 39, p. 2)

> The importance of industry currency is not disputed but there is little literature to assist in understanding its nature or the best way to develop it. (Service Skills Australia, sub. 13, p. 16)

> The credibility of the VET sector hinges largely on whether the skills of its practitioners match the skills used in contemporary industry. But the industry currency of VET practitioners is rarely discussed in public, and when it is raised people normally talk about practitioners undertaking a quick stint in industry. (John Mitchell and Associates, and JMA Analytics, sub. 37, p. 45)

Recent research from Queensland that sought to clarify how trainers can demonstrate and maintain industry currency concluded that, despite enhancements to the AQTF:

> … there are no standard quantifiable measures to assist RTOs to evaluate and benchmark trainer industry currency … [and that] there is a wide variation in understanding among Queensland VET stakeholders about what is required to demonstrate industry currency and how best to maintain it. (DET Queensland 2010, p. 6)

Development of industry currency occurs in many ways

Maintenance of industry currency is often equated with industry release (time spent working in industry), but currency can develop through a wide range of activities.

Mitchell (2010b) identified six broad strategies that practitioners use to maintain their currency: contact with personal and professional connections; use of mentors, coaching and benchmarking; industry experiences; training courses; working in VET; and active enquiry. Many of these are evident in the following description from The Gordon:

> Many TAFE teachers maintain industry currency through the assessment and apprenticeship training work that they do out in industry. Some also have their own businesses that they work on outside of TAFE hours. And some are consultants who maintain their currency because it is vital they do so if they want to be employed on projects. Sometimes industry is invited into the Gordon to meet with relevant staff and talk about their training needs, and sometimes our staff are invited to meet with an industry forum. (sub. 9, p. 15)

Some view employment as the most effective way of maintaining currency.

> All [sixteen participants in a study undertaken on behalf of Service Skills Australia] agreed that working in industry was the preferred way in which this status could be maintained. (Service Skills Australia, sub. 13, p. 46)

The relatively high level of multiple-job holding in the workforce, together with the high proportion of trainers and assessors that have been in the VET sector for less than five years (chapter 3), suggests that a number use contemporary industry employment to ensure their industry currency.

However, working in industry might not be sufficient for currency development:

> Simply working part-time in an industry provides only a very basic level of industry engagement and 'return to industry' programs are not well structured. (Professor Erica Smith, sub. 39, p. 2)

From this perspective, evidence that most VET practitioners engage in a range of activities that contribute to the development of their industry currency is telling (table 9.5), as is the finding from a recent DEEWR survey (DEEWR 2010i) that only 3 per cent of VET practitioners felt that they were not up to date with the knowledge and skills needed by their industry. The very small percentage (for example, 2.4 per cent of graduates) of respondents to the Student Outcomes Survey who disagreed or strongly disagreed with the statement 'my instructors had a thorough knowledge of the subject content' lends support to practitioners' views (tables D.11 and D.12).

Table 9.5　**Activities undertaken by VET practitioners in the past 12 months to keep industry knowledge up to date, by employment type**

Number of practitioners

	Casual	Fixed-term	Ongoing	Self employed	Sessional
Industry placement	19	28	129	8	9
Concurrent industry/RTO employment	41	46	193	27	18
Industry/prof. assoc. membership	36	74	394	26	10
Conferences, workshops, courses	95	147	699	44	39
Subscriptions to professional journals	60	99	512	31	28
Networking	76	138	632	39	30
Industry visits	39	79	453	12	9
Other	9	6	30	1	5
Total practitioners	**147**	**194**	**926**	**57**	**63**

Source: Productivity Commission estimates based on unpublished data from DEEWR (2010i).

However, some study participants raised concerns about industry currency in the workforce (box 9.14). Recent analysis of industry currency among trainers and assessors at TAFE SA Regional revealed gaps, particularly among some practitioners with 10 to 15 years tenure with the Institute (Janek, D., TAFE SA Regional, pers. comm., 19 October 2010).

Box 9.14　Some trainers and assessors lack industry currency

… there will be some teaching staff who are threatened by the notion of going out into industry to test their currency. (The Gordon, sub. 9, p. 15)

[Participants in a study undertaken on behalf of Service Skills Australia] felt that TAFE had the training experience but lacked industry currency … In particular the age profile of TAFE teachers was interpreted as a measure of non industry currency. (Service Skills Australia, sub. 13, p. 28)

AQTF 2007 audit outcomes in Queensland show that 19% of non-compliances relate to AQTF 2007 Element 1.4. It appears that industry knowledge is well maintained through a variety of information sources and networks, but technical skills are more difficult to maintain. (DET Queensland 2010, p. 24)

Barriers to the maintenance of industry currency

A range of barriers to the maintenance of industry currency have been identified by DET Queensland:

Queensland trainers experience significant barriers to maintaining industry currency. Some barriers are experienced at RTO level, others at the industry level and a few are personal. (DET Queensland 2010, p. 13)

Barriers at an RTO level included: limited access to industry currency activities; lack of support for engagement with industry; and complexities associated with locating replacement trainers. At an industry level, barriers included limited placement opportunities and capacity to access up-to-date technology within local industry. Personal barriers included: challenges in balancing work and family with expectations about industry currency; having to use own time and money to fund currency activities; and a lack of industry contacts (DET Qld 2010).

DET Queensland (2010) attributed many of the barriers to conventional thinking about industry currency and a lack of planning. The latter factor also received comment from Service Skills Australia:

> … RTOs do not appear to pay much attention to industry currency in their staff development planning. The survey showed this very clearly. One reason for this may be that they do not see industry currency maintenance and development as a 'program' but as an individual teacher's responsibility. (sub. 13, p. 87)

Given that a large number of VET practitioners enter the sector with current industry knowledge and skills, maintenance of currency needs to be one focus of PD:

> The consensus from EE-Oz's consultations was that Continuing Professional Development … is of paramount importance in maintaining trainer currency; although methods to ensure this training is adequately funded, relevant, well targeted, of high quality and innovative are highly contentious. (EE-Oz Training Standards, sub. 20, p. 8)

FINDING 9.3

Industry currency is not well-researched or understood. Although currency is often equated with industry release, or work in industry, maintenance of currency can occur through a variety of activities. There is evidence of currency gaps in the current workforce, particularly among those who have worked full-time in the VET sector for more than 10 years. Professional development systems need to identify and address these gaps.

10 Improving the workforce's capability

> **Key points**
>
> - The TAE40110 Certificate IV in Training and Assessment (TAA) is an appropriate entry-level qualification for VET practitioners, provided that it is delivered well, and that it is seen as the foundation for further capability development.
>
> - Reflecting the views of the VET industry about the competencies that are necessary for effective training and assessment:
>   - VET practitioners should have completed the Certificate IV in TAA within two years of commencing employment in the sector
>   - workplace trainers and assessors working under the supervision of someone with the Certificate IV should have completed the Skill Set relevant to their role
>   - industry experts should be encouraged to obtain a Skill Set relevant to their role.
>
> - Concerns about the quality of delivery of the Certificate IV in TAA are long-standing, persistent and supported by recent audit evidence. To address them:
>   - the Certificate IV in TAA should be one factor taken into account by Registering Bodies in assessments of a Registered Training Organisation's (RTO's) risk profile
>   - delivery of the Certificate IV in TAA should involve more supervised learning
>   - RTO performance indicators and audit outcomes should be published.
>
> - Clear options and pathways for study beyond the Certificate IV in TAA should be available to the sector, but higher-level qualifications should not be mandated.
>
> - The TAE10 Training and Education Training Package does not completely cover the diversity of roles in the VET sector, nor does it fulfil its potential as a basis for professional development (PD) by the VET workforce. Innovation and Business Skills Australia should remedy these gaps.
>
> - Opportunities for PD beyond the Certificate IV in TAA within the sector are not adequate. Governments need to collaborate to identify what effective PD requires, then assess the adequacy of their funding provisions. RTOs need to assess capability gaps within their workforces, and target resources accordingly.
>
> - A number of issues relating to workforce capability that might be the focus of a national VET workforce development plan are addressed by the Commission's recommendations that target improvements in: workforce data; the TAE10 Training Package; RTO performance; and PD.

As analysis in previous chapters demonstrates, the VET sector has performed reasonably well over the past decade, against a backdrop of significant growth and change. This suggests that, at an aggregate level, workforce capability in the sector has been reasonably adequate.

However, some areas of weakness have been identified. The workforce has gaps in some areas of capability (chapter 9). Shortcomings have also been revealed in the formal mechanisms through which capability is built — qualifications, and professional development (PD) more generally.

These shortcomings are described and analysed in this chapter, with a view to recommending solutions.

Analysis of the minimum qualification requirement for trainers and assessors is presented in section 10.1. Discussion of PD other than the TAE40110 Certificate IV in Training and Assessment (TAA) is contained in section 10.2, and potential national initiatives relating to PD, including registration schemes, are assessed in section 10.3.

10.1   Minimum qualifications for trainers and assessors

The current minimum qualification for trainers and assessors, the TAE40110 Certificate IV in TAA, was designed to reflect the essential foundation competencies required by new entrants to the sector:[1]

> In developing the recently endorsed Certificate IV in Training and Assessment (TAE40110), IBSA [Innovation and Business Skills Australia] readily acknowledged that the qualification does not provide all the knowledge and skills which many practitioners need, but does provide the essential foundations on which further skills and knowledge can be built, through on the job experience, further learning or both. (IBSA, sub. 8, p. 9)

A range of concerns relating to this qualification are discussed in this section, including that it:

- might not be an appropriate minimum for some groups of trainers and assessors

- is only adequate if taught well

- would be strengthened through the inclusion of practicum (supervised training delivery in a real classroom)

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[1] A subset of units from the Certificate IV in TAA represents the minimum requirement under the AQTF for practitioners engaged only in assessment (chapter 9). Practitioners engaged in training and assessment are the focus of most of the analysis in the chapter. Where appropriate, however, the analysis distinguishes between assessors and other VET practitioners.

- should more clearly be seen as only the foundation for further skill development.

What is an appropriate minimum qualification for VET trainers and assessors?

Ideally, determination of the level and type of training that is required, at least initially, to be an effective trainer and assessor would be informed by rigorous quantitative evidence linking student outcomes to trainer and assessor characteristics. However, the Commission has not located compelling evidence of this type for the VET sector (chapter 9). Equivalent research for the schools sector is not suggestive of a strong relationship between teaching qualifications (both pre-service and higher-level) and student achievement. Research does indicate that students are reasonable judges of teaching quality (chapter 5). The high satisfaction rates recorded for VET trainers and assessors (chapter 5), therefore, support a conclusion that, on the whole, the workforce is performing at least adequately, in spite of the relatively low minimum requirement for training and assessment qualifications in the Australian Quality Training Framework (AQTF).

This section examines more closely the issues relating to appropriate minimum training and assessment qualifications for VET practitioners (including VET-in-Schools (VETiS) teachers), trainers and assessors working in enterprises and industry experts.

For VET practitioners?

A recent study of 56 VET practitioners' experiences with the previous version of the Certificate IV in TAA (TAA40104) concluded that it provided some, if not all, of the essential skills required by new practitioners (Clayton et al. 2010). At the completion of their training, the majority of new practitioners 'felt sufficiently prepared and confident to rate themselves as capable of planning, delivering and evaluating training' (p. 33). However, they also identified gaps in the qualification with respect to learner diversity, effective classroom management strategies, competency-based assessment and the tailoring of programs to meet particular client needs. Some of these gaps have been at least partially addressed in the revised Certificate IV, including those relating to individual differences and learning needs, diversity and inclusive practice. But assessment remains an area of concern, as does the dispersal of content from three units covering the learning environment — which means that novices to the sector risk missing critical training (Clayton et al. 2010, p. 35). Delivery will be key to whether or not concerns such as these are addressed, and to the overall effectiveness of the new qualification:

Delivery which is high in quality, which addresses the areas of concern identified by participants in this study, and is backed up by continuing professional development will ensure that new entrants to the VET sector have a firm foundation upon which to build. (Clayton et al. 2010, p. 36)

Study participants also raised concerns about the adequacy of the content of the revised Certificate IV. For example, the Australian Council of Trade Unions (ACTU) noted that:

> … there has also been and continues to be a great deal of work done on the latest iteration of the training and assessment training package … but there is still scope for the process of continuous improvement to be applied to the certificate IV qualification and the training package as a whole. As recommended by the Quality of Teaching report [Wheelahan and Moodie 2010], this should result in a greater focus on teaching, pedagogy, how people learn, diversity and inclusiveness. (sub. DR80, p. 6)

A number of study participants also commented on the lack of a core unit in language, literacy and numeracy teaching (for example, Australian Industry Group (Ai Group), sub. DR88; Skills Australia, sub. DR100).

The Commission notes the concerns about gaps in the coverage of the Certificate IV, but does not believe that it has the requisite knowledge to make recommendations in this area. It agrees with the ACTU's conclusion that '[u]ltimately, these are matters best left to those with professional knowledge in this area to advise on' (sub. DR80, p. 6).

The majority of study participants agreed that the Certificate IV is an appropriate entry-level qualification for VET practitioners, provided that it is delivered well, and that it is seen as the foundation for further capability development (box 10.1).

On balance, the Commission concurs with this view. Evidence that the workforce is performing adequately, and a lack of evidence as to the link between formal teaching qualifications and student achievement, means that the Commission does not see cause to recommend a higher minimum. Conversely, the fact that the VET sector, on the whole, views the Certificate IV as an appropriate minimum qualification means that the Commission does not believe that the qualification requirement should be lowered.

In drawing this conclusion, the Commission notes that it applies also to the appropriateness of the Assessor Skill Set prescribed in the AQTF (chapter 9) as the minimum qualification for VET practitioners working as assessors only.

| Box 10.1 | **The majority of study participants support the Certificate IV as the entry-level qualification for VET practitioners** |

… we consider the Certificate IV in Training and Education to be a suitable entry level qualification however it should not be promoted as <u>the</u> [participant's emphasis] VET qualification for VET practitioners, rather it should be seen as the starting point for the on-going development of professional expertise. (Victorian TAFE Association and TAFE Directors Australia, sub. DR94, p. 8)

The NQC agrees [that the Certificate IV is an appropriate entry level qualification] provided that the Commission places emphasis on the capacity of the Certificate IV to provide foundation or entry level skills which need to be built upon over time. (NQC, sub. DR76, p. 3)

The Certificate IV from TAE10 is a benchmark of quality and recognition in the sector, and its attainment by VET practitioners is an important requirement in terms of the professionalism of the sector. (NSW Government, sub. DR82, p. 4)

… there is general agreement that the Certificate IV in Teaching and Assessment is appropriate as the *entry level* [participant's emphasis] qualification for VET practitioners *if taught well*. (SA Training and Skills Commission, sub. 51, p. 5)

Our view is that this [the Certificate IV in TAA] is the minimum and that this should be the base on which industry and educational skills are built. (Ai Group, sub. 14, p. 8)

Qualification needs of VET-in-Schools trainers and assessors

In its draft report, the Commission sought input on the question of whether minimum standards for VET practitioners should also apply to VETiS teachers. Current AQTF settings treat VETiS teachers in the same way as other trainers and assessors (NQC, sub. DR76). Most study participants argued that the requirements should remain identical. For example, the Department of Education, Employment and Workplace Relations (DEEWR) commented that:

> School Teachers involved in delivery and assessment of vocational education and training (VET) programs in schools should be required to undertake the entry level qualification [Certificate IV TAA] as it introduces them to competency-based training and assessment, and the requirements of the Australian Quality Training Framework. (sub. DR110, p. 9)

However, there were some contrary points of view, for example:

> Those who already have teaching qualifications should not be required to undertake the Certificate IV … They should be required to undertake induction or professional development that introduces them to VET and CBT [competency-based training] if they are to teach VET qualifications. (MGSE, sub. DR65, p. 11)

On balance, given the competency-based nature of VET, versus the curriculum approach in schools, and that school teachers will not necessarily be familiar with the requirements of the AQTF, the Commission believes that current AQTF minimum

standards for VET practitioners should also apply to VETiS teachers. Teachers should receive Recognition of Prior Learning (RPL) or Recognition of Current Competence (RCC), where appropriate, reducing the effort required of them to acquire the Certificate IV in TAA.

For enterprise trainers and assessors?

As Wheelahan and Moodie (2010) observe:

> … while some large enterprise RTOs have training departments with dedicated staff who are employed exclusively to undertake teaching and training (and thus have the same responsibilities as other VET teachers and trainers) … much workplace training and assessing is by those who undertake these duties as part of a broader job. They are not employed primarily as teachers or trainers. (p. 24)

It could, therefore, be expected that some enterprise trainers and assessors have different training needs to other members of the VET workforce. Feedback to Innovation and Business Skills Australia (IBSA) during consultation in 2006, as part of continuous improvement of the TAA04 Training Package, confirmed this:

> Market feedback was particularly strong in relation to the TAA04 not adequately meeting the skill needs of enterprise and workplace trainers. (IBSA 2007, p. 1)

In response, IBSA developed Skill Sets to meet industry requirements for workplace trainers and assessors working under the supervision of someone who holds the Certificate IV. The Skill Sets have recently been updated to reflect units in the TAE10 Training and Education Training Package.

In its draft report, the Commission recommended that workplace trainers and assessors working under supervision be required to hold a Skill Set relevant to their role. Study participants who commented on this recommendation were supportive. For example, TVET Australia noted that:

> In many instances, only a small number of [competencies] are relevant to the skill needs of the enterprise trainer/assessor. Mandating only the relevant Skill Sets represents a better use of resources and time and is more in-line with a core value of the sector — that it's not about 'the piece of paper'. (TVET Australia, sub. DR87, p. 12)

The Commission's suggested approach is also not inconsistent with Wheelahan and Moodie's (2010) recommendation that workplace trainers and assessors who undertake training as part of a broader role complete 'an appropriate level of credentialed training commensurate with their role … [which] would not normally be the full entry level qualification' (p. 26). Wheelahan and Moodie suggested a Certificate III level qualification.

Evidence from enterprises also offers support for the Commission's position. In 2010, the Enterprise Registered Training Organisation Association (ERTOA) undertook a study for IBSA on the relevance of the TAE10 Skill Sets as a VET workforce development tool for Enterprise Registered Training Organisations (ERTOs) (ERTOA, sub. DR91, attachment 1). The research, based on 100 survey responses, concluded that:

> There is strong in-principle support across the enterprise RTO sector for the concept of skill sets and their application as effective Vocational Education and Training (VET) workforce development tools. (ERTOA, sub. DR91, attachment 1, p. 1)

However, ERTOA noted that, although the Assessor Skill Set is well-supported by ERTOs and requires no modification, 'the content and designed purpose of the Trainer Skill Set should be reviewed to see if it can be better aligned to the needs of the enterprise RTO training environment' (ERTOA, sub. DR91, attachment 1, p. 3). Suggested improvements to the Skill Set included: use of terminology that resonates with HR processes; more emphasis on techniques for demonstrating skills to small groups or one-on-one; and specific competencies for coaching and mentoring in the workplace.

On balance, the Commission concludes that the relevant Skill Sets developed and progressively updated by IBSA in consultation with ERTOs, should be the minimum qualifications for workplace trainers and assessors, respectively, working under the supervision of dedicated trainers and assessors. The latter should hold, at least, the minimum qualification requirements for trainers and assessors identified in the relevant Determination from the National Quality Council (NQC). The Commission anticipates that IBSA will respond to ERTOAs' reservations about the content of the trainer Skill Set as part of the continuous improvement process for the TAE10 Training Package.

For industry experts?

The Commission does not foresee a net benefit arising from the introduction of a qualification requirement for industry experts (that is, people who occasionally deliver training on a 'guest lecturer' basis). Industry experts are called on for their vocational expertise, not their educational skills. Given their intermittent involvement in the sector, they would be particularly sensitive to any regulatory barriers to their participation. The UK experience, for example, has been that mandatory qualifications create barriers to entry for some potential staff (appendix F). However, it is likely that some industry experts will, over time, increase the intensity of their involvement with VET. Given that, and in the interest of facilitating the transition of that group to fully effective VET practitioner roles, industry experts should be

encouraged by their employers to complete a Skill Set designed by IBSA in consultation with industry. Relevant content might include, for example, a unit on delivering to groups.

On balance, the Commission concludes that the Certificate IV in TAA, when well taught, is an appropriate minimum qualification for the development of essential foundation competencies for VET practitioners and dedicated trainers and assessors working within Enterprise Registered Training Organisations. The Assessor Skill Set is an appropriate minimum for practitioners in assessment-only roles. Relevant Skill Sets represent an appropriate minimum for workplace trainers and assessors working under supervision. Industry experts, working under supervision, should be encouraged, but not required, to obtain a Skill Set relevant to their role.

The Australian Quality Training Framework should be amended to establish the relevant Skill Sets developed by Innovation and Business Skills Australia as the minimum qualification requirement for workplace trainers and assessors working under supervision.

Should options to work without holding a minimum formal qualification be limited?

Evidence suggests that a sizeable proportion of VET practitioners do not possess the Certificate IV in TAA or equivalent formal educational qualifications (chapter 3). Under the requirements of the AQTF, this implies that those practitioners either: hold equivalent competencies to the Certificate IV in TAA, but no formal teaching qualification; hold Skill Sets relevant to their role; or are working under supervision. These situations are analysed below. Attention is also directed to the timeframe within which workplace trainers and assessors working under supervision should be expected to obtain a Skill Set relevant to their role.

TAE40110 Certificate IV in TAA or equivalent competencies?

The wording of the NQC Determination of 17 June 2010, suggests that the NQC believes that trainers and assessors who do not hold the most recent Certificate IV in TAA, and who are working independently, at least hold a predecessor qualification:

> It is important to note that the new policy includes provision for trainers and assessors to 'demonstrate equivalent competencies'. In other words, it is not the NQC's intention

to require trainers and assessors to upgrade their formal qualifications if they are able to demonstrate they have gained the required competencies through continued professional practice. (NQC 2010c, p. 1)

However, the Commission estimates that up to 40 per cent of trainers and assessors in Technical and Further Education (TAFE) Institutes do not hold *any* formal qualification in training and assessment (chapter 3). That percentage is likely to be higher still in the non-TAFE sector.

Under the AQTF, a VET practitioner might have done no formal study in training and assessment, but could be deemed by his or her manager to have demonstrated that he or she holds equivalent competencies to those that make up the most recent Certificate IV in TAA. Although the option to demonstrate equivalence exists for many occupations that require a minimum qualification requirement for entry, the determination of equivalence usually rests with an external body, not the employer. (Registration boards often have responsibility for decisions of this type.) An unscrupulous Registered Training Organisation (RTO) might take advantage of the option to deem their employees' competencies equivalent to those in the Certificate IV in TAA.

Furthermore, although the NQC does not require VET practitioners holding a predecessor qualification to upgrade to the new Certificate IV in TAA, the requirement that they 'demonstrate' that they hold the equivalent competencies raises similar concerns to those expressed above.

It would be a small, although not costless, additional step to require that the demonstration of equivalent competencies occurs through a formal RPL process. This should be straightforward for experienced practitioners — a view supported by the NSW Government:

> As the current requirement allows VET practitioners to demonstrate equivalent competencies, most existing practitioners should be able to demonstrate they have these skills through their work practices and gain the new Certificate IV through an RPL process. (sub. DR82, p. 9)

The Certificate IV in TAA represents the competencies deemed by industry to be necessary for entry-level independent training and assessment. The Commission is, therefore, strongly of the view that all VET practitioners and dedicated workplace trainers and assessors should hold this qualification, or be working towards it. Demonstration of equivalent competencies should occur via a formal RPL process. The relevant NQC Determination should be amended accordingly.

Practitioner roles requiring less than the full Certificate IV

A proportion of VET practitioners work as assessors only. Unfortunately, the Commission has no data on the prevalence of employment in assessor-only roles, and can, therefore, only acknowledge this as a possible explanation for patterns seen in data on qualification holding. It would be useful if data on employment of this type, and on the completion of Skill Sets, were collected and published.

Compliance with the AQTF requires that assessors hold the Assessor Skill Set from the TAE10 Training Package, or equivalent competencies.[2] The Commission's arguments about the need for trainers and assessors to hold a formal qualification, including after an RPL process, apply also to practitioners in assessor-only roles.

RECOMMENDATION 10.2

The National Quality Council should amend the Determination of 17 June 2010 to require that demonstration of competencies equivalent to those in the TAE40110 Certificate in Training and Assessment by existing trainers and assessors who do not hold that Certificate, or assessors who do not hold the Assessor Skill Set, occur through a formal Recognition of Prior Learning process.

The Commission also notes that the NQC Determination of 17 June 2010 requires RTOs to be fully compliant with the new policy, which allows demonstration of equivalent competencies, by 17 June 2012. The Commission's requirement to demonstrate equivalency via RPL is somewhat more stringent. However, RTOs will have made significant steps towards compliance with the 17 June NQC Determination by the time any new Determination based on the Commission's views is published. The Commission, therefore, believes that a two year timeframe from release of the new Determination for compliance would be appropriate.

In setting this timeframe, the Commission notes the Victorian TAFE Association and TAFE Directors Australia (VTA and TDA) comment that:

> Two years is ample time for either commencing or existing VET practitioners to complete [the Certificate IV in TAA]. (sub. DR94, p. 10)

The Commission considers that demonstrating competency equivalent to the qualification should not take longer than gaining the qualification itself.

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2 Practitioners in assessor-only roles do not have the option of working under supervision.

VET practitioners employed under supervision

Employment under supervision is an alternative explanation for the data on VET practitioners' lack of training and assessment qualifications. The Commission sees a clear risk that supervisory activity could be nominal. Drawing again on the fact that the VET sector has designed the latest Certificate IV in TAA to be the minimum qualification for entry-level independent training and assessment, the Commission believes that the option of working under supervision should be time-limited for practitioners.

In its draft report, the Commission recommended that practitioners obtain the Certificate IV within two years of commencing employment in the VET sector. This would limit the length of supervised activity to two years only. The choice of this timeframe was guided by evidence that many providers, for example, TAFE Institutes in Western Australia, already implement it in relation to new practitioners.

The majority of study participants were supportive of the Commission's draft recommendation (for example, VTA and TDA, sub. DR94, p. 10; NSW Government, sub. DR82, p. 4; Australian Council for Private Education and Training (ACPET), sub. DR98, p. 7).

However, the NQC argued that:

> … it is the role of industry to specify the period of time a VET practitioner may work in the sector under supervision on commencement. The revised requirements for mandatory text within the Training Package Development Handbook enable industry to provide this advice if relevant to specific needs. (NQC, sub. 76, p. 7)

In contrast, the ACTU recommended a one-year limit to supervised practice (sub. DR80). Advocating an even stronger position, DEEWR suggested that 'Practitioners must have a Certificate IV qualification immediately on commencement of teaching and it is not appropriate to have a transition period' (sub. DR110, p. 8).

The Commission considers that the option to work under supervision should be retained. Removing it would create an unnecessary barrier to entry. For example, it would mean that an industry expert who develops an interest in becoming a practitioner might hesitate to make the transition. However, this option should be limited to two years because of the risk that the requirement for supervision is not always well observed, and because the Certificate IV is the industry-identified requirement for independent training and assessment. A shorter time-limit is not supported because of the potential that it might make retention of new employees more difficult. The Commission supports induction programs for new staff (discussed further below).

Skill Sets held by workplace trainers and assessors

The Commission has recommended that workplace trainers and assessors working under supervision should acquire, at a minimum, the Skill Set relevant to their role. In its draft report, the Commission recommended that this happen within two years of a person commencing in a trainer and/or assessor role. Study participants did not object to the proposed timeframe. Given that the Skill Sets represent the minimum competencies identified by industry as being required in those roles, the Commission confirms that workplace trainers and/or assessors should acquire them within the proposed two-year timeframe.

Summary — limits to options to work without holding a minimum qualification

In its draft report, the Commission expressed concerns about the ability of the sector, over the short term, to increase delivery of the Certificate IV in TAA to address qualification gaps within the current workforce, without adverse effects on the quality of that delivery. Study participants did not appear to share this concern:

> … IBSA believes that a very high proportion of practitioners in this category [employed but lacking a training and assessment qualification] would be able to demonstrate their competence through a RPL or RCC process … (IBSA, sub. DR74, p. 3)

> Members advise ACPET that should this [increased delivery of the Certificate IV] be required, they would be able to adapt to support the market. (APCET, sub. DR98, p. 10)

> New South Wales does not believe there will be an issue with RTOs increasing their scale of delivery of the new Certificate IV in TAA while ensuring appropriate quality measures are in place to underpin the integrity of the delivery. (NSW Government, sub. DR82, p. 9)

Accordingly, the Commission reiterates that no VET practitioner should be able to train or assess for more than two years, including under supervision, without holding a teaching qualification relevant to his or her role.

RECOMMENDATION 10.3

The National Quality Council should amend the Determination of 17 June 2010 to limit the period during which:

- **VET practitioners or dedicated workplace trainers or assessors**
- **workplace trainers and assessors working under the supervision of someone with the TAE40110 Certificate IV in Training and Assessment**

can work without holding the minimum qualification relevant to their roles. That period should last no longer than two years: from the date of the amendment to the Determination for the existing workforce; or, for new recruits, from the commencement of their employment after that date.

Low quality delivery of the Certificate IV in TAA

Study participants stressed that the Certificate IV in TAA is only an appropriate entry-level qualification if it is delivered well, and raised a number of issues relating to the current quality of delivery. These issues are described in this section. Possible solutions are canvassed in the following section.

Concerns about the quality of delivery of the Certificate IV are not new. The NSW Vocational Education and Training Accreditation Board (VETAB), for example, conducted a strategic audit of the previous version of the qualification (TAA40104 Certificate IV in Training and Assessment) in New South Wales in 2007. A range of issues motivated the audit, including claims that: some providers were delivering the qualification within inappropriately short timeframes; some adopted inappropriate RPL processes; and there was a lack of understanding of the qualification by some practitioners and prospective students (VETAB 2008, p. 6).

The VETAB audit concluded that concerns about the quality of delivery by some providers were well founded, and noted that the National Registration and Accreditation Technical Committee had recently agreed that the qualification should be identified as high-risk by all jurisdictions (VETAB 2008, p. 19). The effect of this decision was to add delivery of the qualification to the group of factors deemed to increase the risk profile of RTOs, with potential implications for the way in which they were accredited and audited:

> … applicants/RTOs assessed as higher risk in terms of the likelihood of negative impacts on quality outcomes for clients, and of potential impact on the vocational education and training (VET) system more broadly, will receive more regular monitoring and attention from their registering body … (Australian Government 2010b, p. 19)

In response to continuing concerns about the Certificate IV, the NQC commissioned a national strategic industry audit (NSIA) of the qualification (also the previous version) in 2009. Stage 1, undertaken during 2010 by the WA Training Accreditation Council:

> … provided national data concerning the uptake and implementation of the qualification and identified critical areas of non-compliance with the requirements of the Package and with the AQTF. (NQC, sub. DR76, p. 1)

Possible causes of the non-compliance issues identified during stage 1, and potential responses, were then investigated through stage 2. Reports from this work have not been released, and a planned summary will not be published before the Commission hands down its final report.

Although national results from the audit are not available, some information has been published for Western Australia. There, an audit of 24 RTOs:

> … found a wide variation in the level of compliance. 50% of the RTOs audited were compliant with the Standards and provide a first class program and support services to learners. The other 50% who were found to be non-compliant had issues with learning and assessment strategies and evidence gathering tools that do not meet the requirements of the training package and poor record keeping systems. (WA Training Accreditation Council 2010, p. 1)

Recommendations from the WA component of the audit included: an ongoing audit strategy for existing RTOs; risk assessment of RTOs seeking to add the qualification to their scope; provision of a business case by RTOs applying to deliver the qualification for the first time; and PD for trainers and assessors, in particular, about assessment.

A range of potential strategies to lift the quality of delivery of the Certificate IV are assessed below, following some observations about the distinction between RTO compliance and graduate competence.

Compliance or competence

Although there is evidence of widespread non-compliance with the AQTF among RTOs, the evidence on the competence of graduates is mixed. Of the 56 new graduates interviewed by Clayton et al. (2010, p. 8), 'most … felt sufficiently prepared and confident to plan deliver and evaluate training' on completion of their training. By contrast, Community Colleges Australia observed that its members had interviewed potential staff with the TAA, and there were limited cases of those who 'admitted at interview that they had insufficient knowledge in teaching and who had gained little from their TAA course' (Community Colleges Australia, sub. DR104, p. 3).

Results from an NSIA of the transport industry illustrate that RTO non-compliance does not necessarily mean that graduates have been incorrectly assessed as competent. Serious compliance issues were identified across the majority of the 66 RTOs audited. However, 87 per cent of employers considered that employees assessed as competent could do the job. Furthermore, only 5 per cent of employers were dissatisfied with the skills and capabilities of trainers and assessors. These

results suggest that some employers' concerns about the competence of graduates reflected issues unrelated to the effectiveness of assessment — for example, the content of the training (NQC 2008, p. 11).

An employer satisfaction survey was conducted as part of the NSIA of the TAA40104 Certificate IV in TAA (WA Training Accreditation Council 2010). Data were collected for RTOs with and without the qualification on their scope. Unfortunately, the survey results are not in the public domain.

In the absence of evidence on employers' views about the competence of graduates who hold a Certificate IV in TAA, concerns about non-compliance with the AQTF, which should be addressed in their own right, are a separate question to the role of the qualification in assuring trainer and assessor competence.

RECOMMENDATION 10.4

The National Quality Council should:

- ***publicly release the data collected through the employer survey conducted as part of the National Strategic Industry Audit of the TAA40104 Certificate IV in Training and Assessment, together with the accompanying analysis***

- ***commission research into the relationship between Registered Training Organisation compliance, the quality of delivery of the Certificate IV and graduate competence.***

Initiatives targeting higher quality delivery of the Certificate IV in TAA

A number of study participants suggested that a suite of initiatives is needed to improve the quality of delivery of the Certificate IV in TAA. For example:

> Current NQC research is concerned with identifying ways in which the high risks presented to the VET sector by this key qualification might be better managed through a tactical and strategic response which is likely to include a number of actions. (NQC, sub. DR76, p. 2)

In its draft report, the Commission made a number of recommendations targeting improved quality of delivery of the Certificate IV:

- that the qualification retain its high-risk status

- publication of AQTF quality indicator data and compliance data from audits for individual providers (as one strategy to incentivise providers to focus on quality and registration authorities to focus on the quality of their work)

- an increased practicum for students of the qualification and some use of external assessment.

In responses to the draft report, some study participants were critical of aspects of the draft recommendations, and some suggested additional actions including that practitioners delivering the qualification should hold a teaching qualification above the Certificate IV. The Diploma that IBSA is developing for the TAE10 Training Package, or an equivalent qualification, was suggested as the minimum requirement.

Study participants' views, and the Commission's position, on all of these points are presented below.

Risk status of the Certificate IV in TAA

Study participants supported the view that the Certificate IV in TAA should retain its status as a high-risk qualification (for example, Ai Group, sub. DR88. p. 9; ACTU, sub. DR80, p. 9; IBSA, sub. DR74, p. 4; NSW Government, sub. DR82, p. 2). However, the NQC reported that:

> While individual Registering Bodies might have accorded high risk status to [the Certificate IV], this has not in fact been universally applied. (NQC, sub. DR76, p. 3)

A number of participants urged that scope to deliver the Certificate IV be viewed as only one factor contributing to an RTO's risk profile and, therefore, the intensity of attention that it receives from its Registering Body (both when applying to add the qualification to its scope, and subsequently):

> We agree that more frequent and more intensive auditing can be an effective way to improve regulation but this should not be applied in a blanket approach to all RTOs with this qualification on their scope. (VTA and TDA, sub. DR94, p. 9)

> ACPET supports a strategic approach which recognises that there are 'low risk providers' who have a proven track record in quality delivery and who therefore should not require the same intensive audit regime as possibly new providers or those who have experienced quality issues or complaints. (ACPET, sub. DR98, p. 5)

As the NQC pointed out, the AQTF National Guideline for Risk Management stipulates that a range of criteria be considered in determining an RTO's risk profile. The guideline:

> … supports an approach that applicants assessed as having a lower risk of non-compliance and RTOs that are delivering high-quality training and assessment services, will receive less monitoring by a registering body. (Australian Government 2010b, p. 19)

Although audit operational requirements for the new National VET Regulator have not been determined:

> … [t]he interim Chair has however indicated plans to reduce the amount of 'process' auditing and replace it with 'quality' auditing by making use of 'an enhanced

complaints function as a way of identifying high-risk providers' and focusing their efforts on them. (Australian Government 2011b, p. 13)

The Commission strongly supports the notion that any auditing regime should focus on higher-risk providers, and agrees that scope to deliver the Certificate IV in TAA should be only one factor considered in assessment of an RTO's risk profile. Given concerns about the Certificate IV, the Commission is surprised that some Registering Bodies have not actioned the National Registration and Accreditation Technical Committee decision to denote the qualification as high-risk. TVET Australia noted that the 'NQC advocates for the development of a nationally consistent approach to defining the risk profile of courses/qualifications according to relevant criteria' (sub. DR87, p. 7).

Whatever shape registration arrangements take in coming years, this nationally consistent approach should happen. Audit guidelines for the forthcoming National VET Regulator could provide an opportunity for Australia-wide harmonisation in this area.

RECOMMENDATION 10.5

The TAE40110 Certificate IV in Training and Assessment should retain its status as a high-risk qualification. Scope to deliver this qualification should be one factor taken into account by a Registering Body in assessing a Registered Training Organisation's risk profile.

Publication of performance indicators and audit results

On the whole, study participants supported the publication of performance indicators and audit results, with some reservations (box 10.2). Although the Commission continues to support the publication of quality indicator data, it has significant concerns about some of the data currently available.

National Quality Indicators specify that RTOs report data on employer satisfaction, learner engagement and competency completion rates to their Registering Bodies. Each RTO is responsible for the collection of these data. However, TVET Australia noted some problems:

> At present RTOs are responsible for undertaking the survey, including identifying the sample to be surveyed, how the survey is administered and how the data collected is recorded. This arrangement leaves much room for incomplete, inaccurate and inconsistent data to be collected, including, at worst, for the fabrication of survey responses. Future arrangements will need to mitigate against this. (TVET Australia, sub. DR87, p. 8)

| Box 10.2 | **Study participants' views about the publication of performance and audit data** |

The majority of study participants supported the publication of performance and audit data, albeit with some qualifications, for example:

> VTA & TDA support this Recommendation [relating to the publication of performance and audit data] in the spirit of encouraging transparency and improving quality in the VET sector. (VTA and TDA, sub. DR94, p. 9)

> Reports for audit outcomes and performance indicators in VET would need to be provided in a useful, solutions oriented manner supportive of continuous improvement. To achieve this aim we see there is a current need for capacity building of auditors and regulators in writing meaningful audit reports. Appropriate training and professional development for auditors could assist in building this capacity. (ACPET, sub. DR98, p. 6)

> ERTOA would welcome the publication of these data. (ERTOA, sub. DR91, p. 14)

> NQC supports the draft recommendation in principle, with the qualification that information published must have a public value and that the publishing entity must be appropriately protected in undertaking this function. (NQC, sub. DR76, p. 19)

> National policy direction is moving into a space that supports the publishing of audit outcomes and performance data for RTOs. In a regulatory environment that supports openness, transparency and accountability, the logical progression is to provide users of the VET system with information about RTO performance to inform consumer decision making … [however] caution is recommended in the approach that is ultimately adopted. Quality indicators for RTOs are still in their infancy and a review of these is required to ensure that the data gathered and attributed to an RTO's performance is meaningful, suitable, clearly represents what it is measuring and above all, is easily understood by all stakeholders and is not open to interpretation or manipulation (WA Government, sub. DR105, p. 4)

But some expressed stronger reservations about the publication of audit results:

> Master Builders does not support making the findings of VET provider audits public as this would undermine the co-operative and improvement-oriented nature of the audit process. (Master Builders Australia Ltd, sub. DR67, p. 2)

> Whilst PWA is not philosophically opposed to [the recommendation to publish audit reports], some caution needs to exercised with this matter. We are unaware of any evidence to demonstrate correlation between publishing information of audit outcomes and incentivising providers to focus on quality training and assessment. The nature of audit information provided to RTOs by the state VET regulatory body in Western Australia is very specific and would need to be considered in the context of the overall audit report. The nature of any identified non-compliance may well be minor in nature and could be taken out of context against the entirety of the audit report. The nature of an AQTF audit is also very prescriptive in comparison to audit strategies applied to other education and training sectors; this context/comparison equation should therefore be carefully considered prior to any strategy to consider the release of VET provider audit outcome information. (Polytechnic West, sub. DR81, pp. 3–4).

The Commission notes that the NQC has commissioned a review of the National Quality Indicators to 'determine the extent to which they reflect their intended aims,

to support a continuous improvement approach by RTOs and to provide a tool to be used by [Registering Bodies] to support risk assessment processes' (NQC, sub. 52, p. 2). The NQC was to consider the report from this review in mid-April 2011.

A possible alternative set of assessments that could be published are the national surveys of employer and student satisfaction undertaken by the National Centre for Vocational Education Research (NCVER). However, current sample sizes would not support provision of reliable data about small RTOs.

The Commission also notes the Australian Government's intention that the *My Skills* database contain performance data at an RTO level:

> *My Skills* will be an online database to inform students or potential students of their vocational education and training (VET) options. This is likely to include information at the registered training organisation (RTO) level on:
> * employer and student views
> * levels of commencements and completions, and
> * the training they are providing and is available under the scope of their registration. (DEEWR 2011b, p. 1)

The first phase of the database is scheduled for launch in 2011. The Commission is not aware of the extent to which the data underlying *My Skills* will be sourced from the National Quality Indicators.

Overall, the Commission believes that RTO performance data should be published, and that *My Skills* will be an appropriate publication vehicle, but that work needs to be done to develop data collections and indicators that validly and reliably represent the performance of RTOs. A phased approach to publication should be adopted — quality data should be released as they become available, not unlike the approach adopted for the *My Schools* website.

With respect to the publication of audit compliance assessments, the Commission notes that the National VET Regulator will have authority to release information to the public under certain circumstances:

> (1) The National VET Regulator may release information to the public if the Regulator is satisfied that the release of the information:
> (a) would reasonably inform a person's choice to enrol as a VET student with a registered training organisation; or
> (b) would encourage improvement in the quality of vocational education and training services provided; or
> (c) would encourage compliance with the Australian Qualifications Framework. (Australian Government 2010c, p. 139)

Western Australian and Victorian legislation mirroring the Commonwealth legislation establishing the National VET Regulator will presumably give their Registering Bodies similar authority.

The Commission considers that publication of audit compliance assessments would permit consumers of VET to make better informed decisions about where to undertake their training, and would encourage improvement in the quality of vocational education and training services provided. On the assumption that potential students would avoid RTOs with poorer compliance records, with negative consequences for the success of those businesses, publication would encourage greater compliance.

The Commission notes the qualified support of many study participants for the publication of audit results. In recognition of participants' concerns, Registering Bodies should consult with the sector on the design of any public documents containing audit data for individual RTOs.

RECOMMENDATION 10.6

To improve the information available to students to assist in their choice of Registered Training Organisation, and to incentivise Registered Training Organisations to focus on quality training and assessment:

- ***valid and reliable performance indicator data for Registered Training Organisations should be made public through the My Skills website***

- ***Registering Bodies should publish information on audit outcomes for individual Registered Training Organisations.***

The nature of the published performance indicator and audit information should be determined after consultation with industry.

Increased practicum and external assessment

Practicum aims to develop the skills of trainers and assessors through supervision of a number of delivery sessions. There is no explicit practicum requirement in the Certificate IV. However, assessment of competence against the requirements of the core unit *Plan, Organise and Deliver Group Based Learning* (TAEDEL401A) demands, among other things, that a student demonstrate:

> Evidence of the ability to:
>
> - facilitate group-based learning by preparing and delivering a series of training sessions, including:

- at least two consecutive sessions, of a duration commensurate with a substantive training session (e.g. 40-60 minutes), that follow one of the learning program designs

- at least one session delivered to a different learner group, with evidence of how the characteristics and needs of this group were addressed. (DEEWR 2010h, p. 144)

The Commission considers that more significant supervised delivery should play a role in the determination of competence in this critical capability. Research has found that practicum-type exercises that involve observation and feedback are a particularly effective means of developing teacher capability (chapter 9). A recent study of practitioner experiences with the TAA40104 Certificate in TAA — the Certificate IV introduced in 2005 — supports this finding:

> … outcomes from the certificate IV could be markedly improved if serious consideration were given to a number of critical factors … [including] the allocation of sufficient time and space for program participants to practise and apply their teaching and assessment skills and techniques. (Clayton et al. 2010, p. 8)

Study participants who commented on the Commission's recommendation of an increase in the number of supervised delivery sessions in TAEDEL401A to at least four were, in the main, supportive (for example, IBSA, sub. DR74; NQC, sub. DR76; Ai Group, sub. DR88). The NSW Government was one exception:

> The high risk nature of this qualification … is amplified by this recommendation. It is widely acknowledged that the development of demonstrated competence is often experiential and time-based. As a result, increased observation and auditing will not necessarily lead to higher quality outcomes. (NSW Government, sub. 82, p. 3)

The WA Government, although supportive, noted a need to consider how applicants for RPL could meet this requirement. If applicants can demonstrate appropriate practical experience in delivery, then RPL should be awarded.

There was also some concern about the cost implications of the proposal (VTA and TDA, sub. DR94). These might not, however, be particularly onerous. Nominal hours for delivery of the Certificate IV in Western Australia, for example, are 290 (Polytechnic West, sub. DR81, p. 1). Assuming a class of 20, and a student contact hour funding rate of $10, a provider would presumably receive $58 000 for delivery of this course if government funded. Assuming supervised delivery sessions of 60 minutes (including feedback to the student), the proposed increase in supervised delivery would increase nominal hours per student by two over the current requirements (of at least two hours), and for delivery staff by 40. Given that students would require one-on-one supervision, and assuming a staff cost of $50 per hour, two hours of supervised delivery would involve an additional cost of $2000. This represents an increase of less than 3.5 per cent on the estimate of $58 000.

On balance, the Commission, considers that the likely benefits of more significant supervised delivery in terms of practitioner capability warrant this modest additional cost. The Commission, therefore, recommends that the current TAEDEL401A requirement of at least two consecutive sessions of supervised delivery be amended to a total of at least four, and for each to be of at least 60 minutes duration (including feedback). In the interests of giving students time to reflect on what they have learnt, however, and to practise new skills learnt over time, it would be desirable that not all sessions be consecutive.

Given the results of audits of Certificate IV delivery, discussed above, the Commission is unconvinced that assessment of competence in this core skill is adequate in all RTOs. However, as is also noted above, evidence that graduates are not competent is much less compelling than the evidence that RTOs are non-compliant with elements of the AQTF dealing with assessment. On this point, the Commission has recommended that NQC publish data on employer satisfaction collected during the NSIA (recommendation 10.4).

To combat the concern that graduates are being incorrectly assessed as competent, the Commission recommended in its draft report that two of the training sessions supervised as part of TAEDEL401A should take place in the presence of an external assessor.

Study participants had a number of reservations about this proposal (box 10.3). In particular, TVET Australia raised issues relating to: compliance with the AQTF; cost; ensuring the competence of the external assessor; and management and verification of assessments. The Commission acknowledges these points, and does not wish to create a new industry in training and assessment.

With respect to AQTF compliance, an RTO is responsible for its training and assessment services, and for ensuring that its trainers and assessors are appropriately qualified. Assessment by someone from outside the organisation raises the question of responsibility. However, the Commission expects that this issue would be resolved if the assessments had to be conducted by someone employed by another RTO. Responsibility for the services provided would be borne by that RTO. In practice, this situation would be akin to assessment-only services currently offered by some RTOs, and also introduces an element of peer review.

It is true that external assessment is likely to generate higher delivery costs. As noted above, the labour cost of an additional two hours of supervised delivery is probably not onerous. However, external assessment would involve additional costs — at least in administration of assessment arrangements. Costs would be higher still if the in-house trainer also attended the externally assessed delivery sessions.

> **Box 10.3 Study participants' views about external assessment**
>
> IBSA supports [the draft recommendation] which asks IBSA to strengthen the assessment of competence in delivering training in the Certificate IV qualification, and subject to consultations with its major stakeholders, will move to amend the Evidence Guide as proposed ... (IBSA, sub. DR74, p. 2)
>
> VTA and TDA are cautious in our support for this Recommendation. We are not convinced this is the most appropriate solution and that it may cause more problems than it seeks to solve. A number of issues require further exploration before such an amendment is considered including:
>
> - Resourcing implications – including purchasing guide/s and associated funding arrangements for changed assessment requirements. Jurisdictions do not have a common approach to funding assessment of practical course components.
> - The need to review against compliance with industrial agreements.
> - The concept of a peer review process using experienced and practicing VET practitioners to undertake the assessments.
> - The degree to which internal or external assessments occur could be linked to the risk profile of the organisation.
> - The potential for businesses to set up selling this assessment service exclusively.
> - The need to ensure there is a feedback loop so that improvement can be noted in subsequent observations. (VTA and TDA, sub. DR94, pp. 9–10)
>
> Issues for consideration [in the context of external assessment] may include:
>
> - Undermining compliance with the AQTF: altering assessment of students risks undermining the registration afforded to providers through compliance with the AQTF Standards. The interaction between the levers of quality, including the AQTF and Training Package Evidence Guides, should be further considered.
> - Cost: who will bear the cost of this additional compliance requirement?
> - Competence of the external assessor: where an external assessor is used to raise the quality and consistency of assessment, the competence of the external assessor will need to be assured. It is unclear how this will be done …
> - Management and verification: consideration will need to be given to how arrangements with the external assessor can be verified and managed and whether they will be subject to regulatory examination at audit. (TVET Australia, sub. DR87, p. 11)
>
> ACPET … queries the requirement for compulsory additional steps such as assessment by an assessor external to an RTO. This is likely to inadvertently create an industry which may not necessarily enhance quality. (APCET, sub. DR98, p. 6)
>
> [The Commission's recommendation on external assessment] … calls into question the role and competence of assessors in general and challenges the underpinning assessment framework of the competency based system. (WA Government, sub. DR105, p. 5)

Management and verification of external assessment might also present challenges. The potential exists for unscrupulous providers to simply 'game' a requirement for external assessment. It is possible that the problem of incorrect determinations of

competence is concentrated in a subset of poor-quality RTOs.[3] If that is the case, it is also possible that those RTOs will find a poor-quality approach to meeting a new requirement of external assessment. In this scenario, all RTOs will pay a cost for an initiative that does little to address the targeted problem.

The Commission notes that:

> The introduction of external assessment is currently being debated across the sector. It is seen by many as a way of raising the quality and consistency of assessment … The NQC has identified consideration of external assessment as an emerging issue within its 2011 Work Plan. (TVET Australia, sub. DR 87, p. 11)

On balance, evidence gained by the Commission since the draft report has caused it to reconsider its recommendation on external assessment. The Commission urges the NQC in the course of its work on external assessment to analyse the extent to which students of Certificate IV in TAA courses are being incorrectly assessed as competent, and whether this is a general problem or one specific to a subset of RTOs. The Commission strongly supports the inclusion of the issue of external assessment in the NQC 2011 Work Plan.

RECOMMENDATION 10.7

Innovation and Business Skills Australia should amend the Evidence Guide for TAEDEL401A (Plan, Organise and Deliver Group-based Learning) to require those seeking to demonstrate competence at the Certificate IV level to prepare and deliver at least four supervised training sessions.

The Commission notes that TAEDEL401A is a new core unit within the TAE10 Training Package. Training in delivering to groups was an elective unit in the Training Package that preceded TAE10. This attracted considerable criticism during the review process. The absence from the previous version of the Certificate IV in TAA (TAA40101) of a core unit in delivery skills might mean that this is an area of capability gap for some of the existing workforce that should be addressed through PD.

Minimum teaching qualification of practitioners delivering the Certificate IV

IBSA raised a number of problems relating to the minimum teaching qualification held by trainers and assessors delivering the Certificate IV in TAA.

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3   This is allegedly the case in some industries, including early childhood education and aged care (chapter 5).

First, the AQTF requires that trainers and assessors hold 'relevant vocational competencies at least to the level being delivered or assessed', in addition to training and assessment competencies (chapter 9). As IBSA pointed out, the Certificate IV in TAA represents vocational, as well as training and assessment, competencies for people delivering that qualification.

Second, in theory, a person could obtain the Certificate one day, and begin to teach it the next, or very soon thereafter, although, as IBSA noted, 'the incidence of such circumstances is likely to be low' (sub. DR74, p. 4).

Third, IBSA noted that 'difficulty with developing adequate skills in assessment remains a major issue for the sector' (sub. DR74, p. 4). In response to feedback that the development of assessment tools was too difficult for novice practitioners, IBSA changed the unit *Develop Assessment Tools* from core to an elective in the new Certificate IV in TAA. The revised Diploma qualification will include a redeveloped *Develop Assessment Tools* as one of its core units.

In light of these problems, IBSA proposed that:

> … in relation [the Certificate IV in TAA], the AQTF rule about trainers and assessors having relevant vocational competencies, *at least to the level being delivered or assessed*, be changed so that it would be a requirement that trainers and assessors either hold the revised Diploma of Training and Assessment, or be able to demonstrate competence against all the units required in the Diploma qualification. (sub. DR74, p. 4)

IBSA stressed that the proposal does not relate to the Diploma currently in the TAE10 Training Package, because that has too great a focus on management capabilities, and that it is not proposing that the Diploma become the minimum for people delivering anything other than the Certificate IV in TAA.

The Commission has some concerns with IBSA's arguments. First, if the prevalence of people obtaining the Certificate IV one day and delivering it soon thereafter without adequate vocational currency is low, as IBSA believes, then requiring all trainers and assessors delivering the qualification to obtain the Diploma is a high-cost solution to an infrequent problem.

Second, the Commission has some concerns relating to IBSA's arguments about assessment. There are two possible assessment issues relating to those who deliver the Certificate IV in TAA:

- that they require higher-level assessment capability to be able to adequately train Certificate IV candidates in this topic

- that, in common with their colleagues in other VET areas of delivery, their assessment capability is poor, and as a consequence they are incorrectly assessing graduates as competent.

On the first point, requiring those teaching the Certificate IV to hold a Skill Set containing the assessment unit would be a lower-cost solution to equip them with higher-level assessment capability, compared to mandating the full Diploma.

On the second point, the Commission reiterates that it has heard very few complaints supporting this view in relation to the VET sector. Nonetheless, the concern has been raised repeatedly for other industries in the context of ongoing Commission studies (chapter 5) but, in those industries, the anecdotes are about a subset of RTOs that allegedly graduate less-than-competent students. That this issue appears to relate to some RTOs suggests that the problem might lie more in the distorted incentives facing them in particular industries, and might be less a consequence of the skills of their trainers and assessors. In this case, the solution is identification and, ideally, improvement of poor performers. RTOs that do not improve their performance should be deregistered.

As discussed previously, data on employers' satisfaction with graduates from Certificate IV in TAA courses was collected during the national audit of the qualification, but has not been made public. Data of this type, particularly from employers who do not have the Certificate IV on their scope, might be particularly relevant to any judgement about IBSA's proposal. Broad-based satisfaction ratings, as collected in the NCVER *Survey of Employer Use and Views of the VET System* would be less useful than data specifically about the competence of people holding the Certificate IV in TAA to accurately assess their students' competence. Lacking data of this type, the Commission is unable to form a final judgement on IBSA's proposal. The Commission urges IBSA to seek, and consider, any survey data collected from employers in the course of the NSIA, before further developing its proposal to require that trainers and assessors delivering the Certificate IV in TAA acquire the Diploma.

10.2 Professional development beyond the Certificate IV

Although the Certificate IV in TAA is the primary training and assessment qualification in the VET sector, it is only one contributor to the development of capability in the workforce. Like workers in any other industry, members of the VET workforce need to maintain and develop capability through further PD, which can include:

- formal (accredited) training. For VET practitioners, for example, this might involve: further study in their vocational field; units from the Certificate IV in TAA to refresh skills or study new topics; or study of a Diploma or higher education teaching qualification

- other structured learning — for example, non-accredited training

- informal learning activities — which occur as part of work, and might include industry release, mentoring, network membership and active inquiry.

Professional development beyond, or other than, the Certificate IV is the topic of this section. Discussion of strategies to support new staff opens the section. Issues relating to higher-level qualifications are then canvassed. Analysis of PD issues more broadly, including the adequacy of current provisions, is then presented.

Strategies to support new staff

Recent studies have identified effective support for new staff as key to their capability development (Clayton et al. 2010; Guthrie 2010b; Wheelahan and Moodie 2010). Induction programs and mentoring are often mentioned in this context.

Induction programs

Wheelahan and Moodie (2010) recommend that all newly employed trainers and assessors (including industry experts) should receive pre-service induction training covering an introduction to training and assessment strategies (for those who have not previously worked as a teacher, trainer or assessor), along with an institution-specific component, addressing local policies and processes. Although new staff from other education sectors will be familiar with teaching strategies, they might need an introduction to VET curriculum, assessment and policies.

The Commission agrees that induction programs are important, and expects that well-run RTOs provide support of this kind for new starters. There might be economies of scale in adopting a standardised approach to the non-RTO specific elements of an induction program. Some of this material could be state or territory specific, for example, local policy and regulatory settings. That material could be produced by the relevant state training authorities, or their PD extensions.[4] Some elements might be relevant Australia-wide. IBSA could develop a national training product for induction purposes, that articulates with the Certificate IV in TAA for those who enter the sector without that qualification.

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4 For example, the TAFE Development Centre in Victoria.

Mentoring

As Wheelahan and Moodie (2010) noted, there is good mentoring and bad.[5] Simply appointing someone as a mentor will not achieve much if they are unclear about their role, unwilling to take it on, or struggle to find time to mentor effectively. Guthrie (2010) noted that effective mentoring requires:

> … that the role of workplace mentors is properly legitimised within the system and that their role [is] supported by appropriate training and rewards. (p. 21)

Wheelahan and Moodie (2010, p. 40) recommended the extension of jurisdiction-wide programs to support new starters via mentoring. They cited the *Victorian Industry Experts as Teachers* program as one example of a state-funded scheme. This involves government funding for 170 industry experts chosen by TAFEs to obtain the Certificate IV and follow-up services including access to experienced teachers. They also cited two programs — *Teachers Reflecting on Practices in Context* and the *VET Futures Initiative* — aimed at the development of all staff, not specifically new starters.

As with induction programs, there might be economies of scale in a commonly agreed approach to training for mentors. IBSA could explore whether the sector sees value in the inclusion of a unit covering mentoring within the new Diploma qualification.

Conclusions

Wheelahan and Moodie (2010, p. 40) recommended that 'RTOs above a certain size [be] required to implement and report on institutional programs to support new teachers'. The Commission considers that there might be little net value in requiring institutions to provide evidence that they run such programs. Support for new staff represents good business practice. Quality RTOs are likely to have effective programs in place. Additional regulatory requirements in the case of RTOs that are performing well will impose unnecessary costs on those businesses. In the case of poor performers, an effective program should form part of a suite of measures to lift performance — and be identified as an area of need through the audit process.

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[5] Wheelahan and Moodie (2010, p. 39) note that the term 'mentoring' is used within the sector to refer to a range of strategies that they label as 'institutionalised support for new staff'.

Formal qualifications beyond the Certificate IV

A number of study participants raised the importance of qualifications beyond the Certificate IV in TAA. For example, IBSA discussed a range of VET qualifications:

> For some, the Certificate IV entry level qualification will be adequate, for many others a higher level qualification such as the Diploma, which provides advanced training and assessment opportunities, may be required. Other, more specialist qualifications such as the high level LLN qualifications and the management qualifications available in the TAE Training Package will be required by an increasing percentage of the VET workforce. (IBSA, sub. 8, pp. 9–10)

The Australian Council of Deans of Education (ACDE) argued that study at a higher-education level equips students with capability that is not necessarily obtained through competency-based qualifications:

> … learners whose understanding of a job role is developed in a competency-based program will not necessarily achieve a grasp of the principles and ways of thinking that underpin competent performance … higher education facilitates development of a holistic understanding of the discipline or industry area and a critical appreciation of how and when to apply theoretical knowledge in particular contexts. (sub. DR107, p. 10)

The ACDE submission also provided quotes from VET teaching students' course evaluations about the benefits that they had derived from their university study, including in relation to their: depth of understanding; transformation of practice; and ability to engage with complex work roles and initiate improvement.

The Australian Education Union (AEU) (sub. 34) proposed a phased approach to the development of TAFE teachers' capability, involving an entry-level TAFE teaching qualification at at least an Australian Qualification Framework (AQF) Level 4 (a Certificate IV) during phase one, with further development of skills through phases two and three. The AEU also argued that PD should be linked to the acquisition of qualifications, to at least an AQF Level 7 (a Bachelor Degree). Wheelahan and Moodie (2010) also recommended that PD be linked to accredited training.

Guthrie (2010, p. 15) proposed greater collaboration between universities and the VET sector, 'thereby ensuring seamless pathways and a range of suitable and flexible programs'. In the same vein, the ACDE recommended the establishment of formal arrangements between IBSA and the universities, to create pathways between VET and higher-education qualifications (sub. DR107).

For the Commission to support the development of VET workforce capability through qualifications beyond the Certificate IV, such a reform would need to

deliver a net benefit in terms of improved student outcomes. However, as discussed in chapter 9, there is little evidence that formal teaching qualifications are effective in the schools sector, and there is almost no analysis in this area for VET — making this a high priority target for future research. The Commission, therefore, cannot agree with the view of some study participants (such as the Melbourne Graduate School of Education (sub. DR65)), that qualifications in addition to the Certificate IV in TAA should be mandated.

Qualification thresholds for progression through salary scales (chapter 9) within the sector suggest that, although employers might see value in higher-level formal qualifications, they do not regard them as a prerequisite. Clear options and pathways for study beyond the Certificate IV should be available to the sector, enabling individuals and their employers to choose options that suit their needs. To this end, a recommendation that IBSA fill gaps in the Training Package is presented below.

Further, the Commission agrees that there is significant merit in linking PD in training and assessment competence with accredited training, and welcomes IBSA's message that it will consider developing 'a large and diverse bank of units which could meet VET practitioners' PD needs at various levels' (sub. DR74, p. 2).

Broader PD issues

This section reviews the empirical evidence on PD in the VET sector, evaluates the adequacy of current PD opportunities, and identifies barriers to PD. Some comments about who benefits from PD precede this discussion.

Who benefits from PD?

The ultimate beneficiaries of any PD activity should be students of the VET trainers and assessors. Efforts to build workforce capability should target improvements in the students' VET experiences and outcomes.

Both trainers and assessors, other employees and employers also benefit from PD, and, therefore, have responsibility for it. Employees benefit in a variety of ways, including: improved employability options; higher salaries (where PD is linked to pay); and intrinsic returns from becoming more accomplished in their roles. Their needs and preferences for PD will depend on a wide range of factors, including their current competencies, career intentions and commitments outside the VET sector, for example, to other work, family and community roles.

Employers potentially benefit, for example, through: an increase in business arising from a reputation for quality; the transfer of skills and knowledge between increasingly capable employees; and the identification and adoption of more innovative delivery strategies.

Employers' needs will depend on their business orientation. As Mitchell and Ward (2010, p. 33) note, the combination of practitioner types needed by an RTO depends on its strategic direction:

> The more specialists and advanced practitioners, the better the quality of the educational experience … It should be recognised, however, that such a strategy … might not serve the purposes of all RTOs. Some RTOs may have business models in which they mostly need foundation level practitioners.

It follows that employer needs for staff PD will also vary across different types of RTO. Given the heterogeneity of needs and preferences, therefore, the Commission would not support the mandating of any particular type of PD.

Government, as a major funder of VET activity, also has an interest in ensuring that the workforce has the capability that it needs to be effective.

Empirical evidence on VET workforce PD

Data on PD expenditure and activity in the VET sector is patchy.

The Commission has been unable to locate recent data at a national level on PD funding. The ABS last collected data in 2001-02. At that time, education employers (across all sectors) spent $478 per employee — slightly more than the all-industries' average ($458). In a study of human resource management practices in VET, Smith and Hawke (2008) found that both TAFEs and private providers had low to medium expenditure (0–4 per cent of payroll) on training and development.

The *2009 Survey of Education and Training* contains population representative data on the PD activity of individuals. People employed in the Tertiary and Adult Education and Training industry were more likely than the average employed person to participate in work-related formal and non-formal courses in the year preceding the survey (about 28 per cent versus 16 per cent for each study mode).[6] For the Education and Training industry as a whole, about 30 per cent of employees received financial assistance from their employer to undertake formal or non-formal study — a percentage somewhat higher than the 24 per cent for all employed persons who

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[6] These data are relevant to main job only. To the extent that the experiences of those who work in the sector, but have a main job somewhere else, are different, these data are inaccurate.

undertook formal qualifications, but identical to the figure for those who undertook non-formal courses.

Research by Simons et al. (2009, p. 34), based on a survey of almost 1100 staff from 43 RTOs in 2006, concluded that, in the three years preceding the survey:

> Overall engagement with professional development was significant … Sixty-four per cent [of staff] reported having undertaken formal, 74 per cent structured and 73 per cent informal professional development.

Participants in a more recent survey (DEEWR 2010i) reported higher levels of participation. Over three-quarters of the casual and 84 per cent of the ongoing, trainers and assessors that make up that sample undertook some form of PD in the 12 months to September 2010. Unfortunately, these data do not indicate the intensity of their participation.

Simons et al. (2009, p. 5) concluded that job role was a factor in VET workers' receipt of PD:

> Staff in management positions are best served by existing arrangements. Teachers and general staff are less well accommodated …

Similarly, Service Skills Australia observed that employment arrangements influence participation:

> It is generally accepted that part-time and casual VET practitioners who form a substantial proportion of the VET [workforce] are traditionally 'hard-to-reach' in terms of engagement of development activities. This view is in line with the general finding that casual and part-time staff receive less training in the workforce in general. (Service Skills Australia, sub. 13, p. 15)

Although the current prevalence and intensity of PD effort remain unclear, and employment arrangements might limit engagement by some VET workers, there is evidence that at least some members of the workforce would like more. Mitchell and Ward (2010) recently analysed the views of 2230 VET practitioners:

> Many of the questions asked whether or not the respondents were interested in undertaking professional development in 51 different aspects of training and assessing. In the vast majority of areas, more than 50% said yes. (John Mitchell, pers. comm., 14 October 2010)

Is PD activity in the VET sector adequate?

As discussed in chapter 9, RTOs are responsible under the AQTF for ensuring that their employees have the capabilities that they need for their work, and that they continue to develop their competence. In theory, it could be assumed that

workforces in all RTOs that are compliant with the AQTF undertake 'adequate' levels of PD. In practice, this assumption does not hold true.

The question of the adequacy of PD needs to be considered from both a quantity and quality perspective. Is the 'volume' of PD sufficient to meet the capability needs of all workers, and is the range of PD on offer effectively aligned to those needs?

The significant variation in PD provisions within industrial instruments across the states and territories (chapter 9), and the absence of a provision in the modern award, together suggest significant variation in Australian jurisdictions' perceptions about what constitutes an adequate volume of PD. There is an opportunity for a collaborative exercise among states and territories to explore how the AQTF requirements for trainer and assessor PD can be most effectively met.

Study participants and others also presented evidence that the volume of PD is not adequate:

> Professional development is a neglected but crucial feature of TAFE teaching, and it must be reconceived collaboratively with the profession, and properly resourced by governments. (AEU, sub. 34, p. 44)

> … Australia's VET practitioners clearly indicate that adequate professional development opportunities are just not available … On average, Australian VET trainers and assessors claim that available professional development opportunities meet only 55 per cent … of their professional development requirements. (Mitchell and Ward 2010, p. 19)

> There are programs in Victoria through the TAFE Development Centre that will fund TAFE Institutes to go out into industry to maintain their currency — this can be done in a myriad of ways and is a great program. However, the funding is not sufficient to enable all teaching staff to do this. (The Gordon, sub. 9, p. 15)

In terms of funding, governments have an important role, both as employers, and as funders of VET. Payments to providers should reflect the costs of training provision, one of which is employers' investments in the maintenance and development of capability in their workforces. VTA and TDA noted that '[t]he quantum of [PD] funding needs to be regularly reviewed to ensure all governments are contributing effectively to the quality of VET teaching' (sub. DR94, p. 12).

RECOMMENDATION 10.8

Given the wide variation in provisions for professional development within the relevant VET awards and agreements, State and Territory governments should collaborate to explore how Australian Quality Training Framework requirements that trainers and assessors continue to develop their capability can be most effectively met.

Study participants also questioned the value of some PD activities. VTA and TDA, for example, 'do not support an events based or ad hoc approach to [PD] that leads to random acts of improvement' (sub. DR94, p. 12). As Guthrie and Clayton observed (2010, p. 23):

> … workforce development should be focused on building individual and work team capability rather than targeted towards the implementation of new regulatory frameworks or organisational procedures. However, it is often the latter approach that prevails rather than the former, because such development is 'funded' and mandated.

The work of Mitchell and Ward (2010) illustrates the importance of capability gap analysis by RTOs. During 2010, TAFE SA Regional used a diagnostic tool developed by Mitchell and Ward to analyse the capability of its trainer and assessor workforce. The results led to the Institute identifying six or seven skills gaps that needed immediate attention, including learning styles, learning theory, AQTF documentation and flexible delivery skills (Mitchell 2010a). The results are also consistent with a conclusion that available resources need to be targeted to areas of greatest need, that is, PD offerings need to be consistent with workforce needs.

The Commission's conclusions about industry currency and capability gaps also point to inadequacies in both the level and allocation of PD resources, especially in light of the changes confronting the sector. On balance, in relation to advice on PD requested in its Terms of Reference, the Commission concludes that PD opportunities in the sector are not adequate.

The sector lacks an evidence base to inform decision-making about PD. Better measurement of PD activity and research on what works, would be of value to decision-makers:

> … metrics to measure professional development effort and outcomes need to be agreed across jurisdictions so we have meaningful data for future planning and implementation of CPD. (VTA and TDA, sub. DR94, p. 12)

This gap will be addressed through the recommendation in chapter 9 that NCVER research the relationship between practitioner characteristics and student outcomes.

Mitchell and Ward (2010, p. 8), also pointed to a lack of information about how some types of capability development occurs:

> … there is no inclusive, coherent model of VET professional practice ... [this] means that there is no comprehensive understanding in the sector of how VET trainers and assessors transition from basic or foundation level to advanced practice.

Research into how capability develops could be initiated by the NCVER or IBSA. It would form useful input into development of the TAE10 Training Package recommended below (recommendation 10.10).

Following inter-jurisdictional collaboration on meeting the Australian Quality Training Framework requirements for professional development in their VET workforces, State and Territory Governments should assess the adequacy of funding provisions for this activity. Registered Training Organisations should identify capability needs within their own workforces and target funding accordingly.

Other barriers to professional development

Even if the quantity and content of PD opportunities were optimal, the VET workforce faces other barriers to capability development.

Lack of planning is one barrier. Simons et al. (2009) found that over 40 per cent of teachers and general staff did not have a PD plan in place with their manager. This finding is consistent with the conclusion of research by Smith and Hawke (2008, p. 19) that training and development were not a day-to-day or strategic priority for human resource managers in TAFE Institutes and were 'perhaps the subject of much rhetoric but less practical application'. Performance management systems appeared to be a recent development in the 60 TAFE Institutes covered in their study. In contrast, they found that training and development of staff was the second top operational priority for human resource management in the 618 private RTOs studied.

Increased work complexity, and associated pressures on staff time, might also act as a barrier to the capacity of the VET workforce to engage in PD. As the AEU noted:

> TAFE has been subject to considerable reform … The result for TAFE lecturers and Educational Managers has been more work, work that is more complex, and significant increases in skill, responsibility and stress. (sub. 34, p. 32)

Elimination of barriers of this type requires the adoption of effective human resource management policies, and development of a culture that values and supports PD. IBSA argued that the sector lacks this culture, and suggested that its development:

> … is not easily achieved, nor can it be achieved by fiat or compliance. It can be achieved, over time, by the workforce being provided with opportunities and professional networks. (sub. 8, p. 10)

It recommended that governments, employers and the workforce, support and resource the establishment of professional bodies 'designed to develop and promote associations of those in the workforce with a community of interest' (sub. 8, p. 10).

Some bodies of this type already exist, but they tend to have a generic focus. For example, the VISTA Association of VET Professionals, which:

> … is committed to raising the status of the VET profession within the community; promoting a deeper understanding of applied learning pedagogy within VET; and supporting the professional skill and career directions of VET practitioners. (VISTA 2010, p. 1)

Information and communication technologies could facilitate the emergence of professional networks dedicated to a segment of the VET workforce. However, someone needs to be responsible for network coordination, for example: establishing and maintaining information and communication technology infrastructure; locating and signing-up potential network members; and identifying, or vetting, material for communication to members. IBSA suggested that industry skill councils (ISCs) play a role, both in supporting existing networks, and encouraging new ones. This is a sound suggestion. ISCs are in a position to be aware of both industry-specific, and more general, material that might be of interest to networks established along industry lines. This could include information on best practice teaching initiatives, PD initiatives and developments within industry. Networks could also act as a voice, for example, on policy issues, for the interests of their members. As governments already fund the activities of ISCs, additional funding to set up or expand networks could be sought through the normal channels.

10.3   Potential national approaches to VET workforce development

Study participants have suggested a range of actions at a national level to improve the capability of the VET workforce:

- professional standards or a capability framework
- a national workforce development plan
- initiatives to enhance the professionalism and status of VET workers — including a registration scheme.

These suggestions are assessed this section.

Professional standards or a capability framework

Professional standards for educators have gained renewed prominence recently, with the release of National Professional Standards for Teachers in February 2011. The standards:

… make explicit, for those within and outside the profession, the knowledge, skills and dispositions required of teachers at each level. (AEEYSOC National Standards Expert Working Group 2010, p. 3)

… present a common understanding and language for discourse between teachers, teacher educators, teacher organisations, professional associations and the public … [and] define the work of teachers and make explicit the elements of high-quality, effective teaching in 21st century schools that will improve educational outcomes for students … Teacher standards also inform the development of professional learning goals and provide a framework by which teachers can judge the success of their learning and inform their self-reflection and self-assessment. (AITSL 2011, p. 2)

Some descriptions of capability frameworks canvass similar matters:

The NSW Public Sector Capability Framework has been developed to provide a common and consistent language to describe the knowledge, skills and abilities (capabilities) required to deliver better services to the community. (NSW Department of Premier and Cabinet 2011, p. 1)

The Capability Framework describes the capabilities DVA [the Department of Veterans' Affairs] expects its staff to demonstrate in order to fulfil its mission. The Framework details the key behaviours, skills and knowledge required of staff and lists the essential tools and processes which support staff in displaying and developing the key capabilities. The Framework provides DVA with a strategic workforce planning tool which will enable DVA to continue to meet the needs of its clients now and in the future. (DVA 2008, p. 2)

Although there are some differences in terminology (for example, dispositions, abilities and key behaviours), both standards and frameworks are designed to:

- describe the knowledge, skills and abilities (capabilities) needed in different roles within a workforce

- provide a common and consistent language to describe those capabilities

- contribute to high quality service delivery

- inform PD activities.

Within the VET sector, the TAE10 Training Package has the potential to play these roles, at least for training and assessment capability (industry currency is a separate matter). For each qualification, the Package describes:

- possible job titles and roles in the sector for which the qualification might be relevant, for example, the draft new Diploma in TAA includes lead trainers and lead assessors in a list of job roles for which the qualification might be relevant

- the essential skills and knowledge that students must demonstrate to be deemed competent against each unit, for example, students undertaking the unit

TAEDEL4040A, *Mentor in the Workplace*, are expected, among other things, to develop knowledge of relevant legislation, workplace occupational health and safety and mentoring models and strategies.

The Package also uses a language to describe capabilities, and should be the basis for accredited PD activities — whether full qualifications, skill sets or individual units.

In essence, the Training Package already embodies a capability framework. However, before the Package can fully fulfil the role played by professional standards, gaps in its coverage should be addressed. As IBSA notes:

> There are gaps in the qualifications available for people in the industry. Some roles/occupations that do not have an appropriate qualification or skill set available are: coaches/mentors conducting non−accredited training in the workplace; learning designers and instructional designers; supporters of Indigenous learning; teaching international students on− and off−shore; teaching individuals with disabilities; e−learning co−ordinators. (2010c, p. 13)

RECOMMENDATION 10.10

As a matter of priority, Innovation and Business Skills Australia (IBSA) should develop qualifications and Skill Sets so that the TAE10 Training and Education Training Package more completely covers the diversity of roles within the VET workforce, and reflects a full capability framework for the workforce. The Package should then form the basis for advice from IBSA to the sector on professional development options that address capability gaps.

A national VET workforce development plan

The Commission's Terms of Reference request advice on workforce development in the VET sector. Many study participants have called for a national VET workforce development plan. The term 'workforce development' has a wide range of meanings (Hawke 2008). It has been variously used, for example, in reference to: activities relevant to the national workforce; a group of human resource management functions within an organisation; and the concept traditionally thought of as PD. Submission content indicated that the majority of study participants had PD in mind when thinking about a plan, rather than some broader concept.[7] Based on

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[7] The submission from the SA Training and Skills Council (sub. 51) is one that took a broader view. According to the Council, a workforce development strategy should include, for example, initiatives to encourage entry to the VET workforce from other industries, regular work placements for practitioners and strategies to raise the status of VET teaching and assessment.

study participants' views (box 10.4), key elements of a national plan would include:[8]

- quality data on the characteristics of the VET workforce

- a suite of qualifications reflecting the diversity of the sector

- auditing to ensure that those qualifications are delivered by competent providers

- intelligence on current and emerging capability needs of the workforce

- strategies to encourage PD and fill capability gaps.

Recommendations throughout this report address these elements.

The first element is addressed in the Commission's recommendations on workforce data (chapter 7). The second is addressed through this chapter's recommendation that IBSA expand the Training Package to cover the diversity of job roles in the sector (recommendation 10.10). The third is covered by recommendations aimed at improving the quality of delivery of the Certificate IV in TAA (recommendations 10.1 to 10.6). IBSA has responsibility at a system level for the fourth element, and acquits this responsibility, for example, through its annual environment scan. At a provider level, as recommended above, RTOs should take responsibility for identifying capability gaps within their workforces (recommendation 10.9). Recommendations relating to PD address the last element on the list (recommendations 10.8, 10.9 and 10.10).

On balance, therefore, the Commission does not support the creation of a national VET workforce development plan.

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[8] Guthrie's (2010, pp. 20–1) proposal for a comprehensive workforce development strategy has similar features, along with a range of actions at a provider level.

Box 10.4   **Participants' views about the content of a workforce development plan**

The Minerals Council of Australia suggested that a workforce development plan should include:

– Characteristics of the current workforce, both public and private RTOs and embedded within enterprises.

– Identification of the current and future needs of industry, including the potential impact of economic cycles, the ageing workforce and new technologies.

– Strategies to fill the gaps. (sub. 23, p. 13)

Skills Australia, cited by the ACTU (sub. 31), have called for a national VET workforce development strategy that includes:

– Higher quality data and information about the VET workforce.

– A suite of qualifications that reflect the diversity of the sector to ensure that qualifications of the VET workforce are fit for purpose, and regular audits to ensure that training providers offering these qualifications are competent to do so.

– Accreditation of teachers and assessors including a requirement for continuing professional development.

– Appropriate financial investment in teacher development. (ACTU, sub. 31, p. 9)

The TAFE Development Centre observed that:

A workforce development plan would need to be developed for the specific cohorts within the VET workforce appropriate to their current job function and level. For example, considerable research has been undertaken regarding the levels of professionalism of VET teachers (NCVER). The TDC has also developed a model of practitioner expertise based on whether they are a new entrant, an accomplished practitioner or an educational leader. Targeted professional development programs can then be provided based on this categorisation. (sub. 18, p. 6)

Initiatives to enhance the professionalism and status of the VET workforce

The Commission's Terms of Reference ask it to consider and provide advice on the professional status and standing of the VET workforce. It is likely that 'professionalism' and 'status' mean different things to different people. As background to the following discussion, definitions of these terms are presented in box 10.5.

Box 10.5   **Definitions of the terms professional and status**

Professionalism occurs when someone displays the characteristics of a professional:

> There is no absolute agreement on what constitutes a professional. However, certain characteristics of professions and professionals are recognised by most writers on this subject. These characteristics include:
>
> – a strong motivation or calling
> – the possession of a specialised body of knowledge and skills acquired during a long period of education and training
> – control of standards, admission, career paths and disciplinary issues
> – autonomy in organising and carrying out their work
> – the need for the ongoing exercise of professional judgement
> – members accept and apply a professional code of practice. (Australian Government 1998, p. 23)

Status

> Status is a measure of the esteem in which an individual, group or occupation holds itself or is held by others. A number of factors contribute to high status. These include the possession of highly valued and specialised knowledge and skills and, often, large financial rewards … 'Individual' status can be described as that which is earned by or ascribed to a person on the basis of personal merit. Such a person demonstrates the skills, integrity and professional acumen which result in their being held in high regard by those with whom they are directly involved … Group status … is largely secured as a result of that group establishing itself on some kind of institutional basis, asserting itself as the voice of its members and being accepted by others on those terms. What flows from this is influence on political and financial decision-making processes, a capacity to make other groups or institutions take your interests and needs into account, and the power to attract high rewards for members of the group. (Australian Government 1998, p. 28)

The notion of professionalism in VET is complicated by the fact that many VET trainers and assessors are 'dual professionals'. Calls to enhance the professionalism of the workforce have been focused on the education element of practitioners' roles, rather than on the vocational.

Some study participants hold a view that VET practitioners will be more professional if they have qualifications akin to those of teachers in other sectors. However, the identity of many VET trainers and assessors differs significantly from that of school teachers and higher education lecturers. VET workers tend to enter the VET workforce already equipped with a professional identity, and will fall along a spectrum in terms of their readiness to identify as 'teachers'. Not least, practitioners in private providers and ERTOs tend to eschew the term, preferring to be known as trainers, because 'training' is what industry is looking for. In contrast,

with some exceptions, school teachers and university lecturers primarily identify with their educational sector.[9]

In terms of the status of the VET workforce, there is little evidence of a lack of individual status. Student and industry opinions are very positive and, with some exceptions, there is no shortage of people willing to work in the sector (chapter 8). Furthermore, VET practitioners sit higher on scales that rank the status of occupations than the occupations from which they are drawn. For example, the *ANU4 Status Scale* (a socioeconomic index based upon linkages between education, occupation and market income) places Vocational Education Teachers 8th in a ranking of 117 occupational groups (Jones and McMillan 2001). VET teachers did, however, achieve a lower status score than university lecturers and primary and secondary teachers. VET teachers also ranked above many of their source occupations on a scale that included information on prestige ratings (McMillan and Jones 2000). Although these scales are dated, it is unlikely that the relative rankings of VET teachers have changed significantly since they were devised.

Arguably, the VET workforce does lack group status. Key opinion leaders and decision-makers outside the sector tend to have a stronger focus on schools and higher education. The VET workforce does not have a body whose key responsibility is its interests, beyond the industrial role played by the AEU. This point is taken up again below.

A number of study participants have drawn attention to bodies like the higher education sector's Australian Learning and Teaching Council (ALTC) and the schools sector's Australian Institute for Teaching and School Leadership (AITSL) in the context of the status and professionalism of the VET workforce.

Bodies that promote the professionalism and status of other education workforces

In terms of roles, ALTC and AITSL have much in common (box 10.6), including:

1. development of standards

2. organisation of national awards to celebrate and reward teaching excellence

3. research into best practice in teaching and learning

4. support for PD.

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9   An example of an exception might be a medical specialist who also teaches at university.

Box 10.6 ALTC and AITSL activities

ALTC's role is to:

- provide grants for academics and professional staff to investigate, develop and implement innovations in learning and teaching and to develop leadership capabilities

- provide resources on innovations in learning and teaching and syntheses of best practice

- collaborate with the academic community and national and international partners to benchmark effective learning and teaching and promote the establishment of national learning and teaching academic standards

- provide fellowships for leading educators to address significant national educational issues and to act as advocates for excellence in learning and teaching

- confer awards to celebrate, recognise and reward teaching excellence and outstanding contributions to student learning

- coordinate and commission projects and provide policy advice to address national priorities and sector needs in relation to learning and teaching

- provide development and networking opportunities for academics and professional staff.

AITSL's role is to:

- develop and maintain rigorous national professional standards for teaching and school leadership

- implement an agreed system of national accreditation of teachers based on these standards

- foster and drive high quality PD for teachers and school leaders through professional standards, professional learning and a national approach to the accreditation of pre-service teacher education courses

- undertake and engage with international research and innovative developments in best practice

- administer annual national awards for teachers and school leaders

- work collaboratively with government and non-government school systems, key stakeholders including professional associations and education unions, teacher educators, business and school communities, and the Australian Curriculum Assessment and Reporting Authority (ACARA) and Education Services Australia

- fulfil the role of assessing authority under the Migration Regulations 1994 for the purposes of skilled migration to Australia as a pre-primary, primary or secondary school teacher.

Source: ALTC 2010, p. 3; AITSL 2010, p. 1.

In addition, ALTC collects and disseminates resources on innovations and best practice in higher education teaching and learning, and provides policy advice on significant national educational issues. AITSL also has a brief to perform other functions of a traditional registration body, including teacher and pre-service course accreditation, and capability assessment for applicants for skilled migration.

Within the VET sector, a range of bodies already perform some, but not all, of the functions fulfilled by ALTC and AITSL. This activity is summarised below, and approaches to those functions that are not covered are discussed. (ALTC's Registering Body functions are covered by the discussion of registration in the following section.)

As discussed above, IBSA, through its work on the Training Package, develops standards for the workforce.

All of the states and territories organise annual state training awards, and all, with the exception of Tasmania, have a teacher/trainer category. State and territory finalists compete for national awards organised by DEEWR, but these do not include a teacher/trainer category. The Commission supports the recommendation made by Wheelahan and Moodie (2010, p. 33) that: '[n]ational awards for VET teachers and trainers be established commensurate with teaching awards in the schools and higher education sectors'. There is an argument for government, as a large purchaser of training, to be a principal sponsor for such awards, along with peak industry associations.

The NCVER undertakes research on a broad range of issues within the sector. Wheelahan and Moodie (2010, p. 63) reported 'general support [from participants in their study] for more research on pedagogy and models of teaching and training in VET', and recommended that governments commission activities to develop the scholarship of VET teaching and training. Reflecting this support, teaching and learning is one of five current national research priorities for the NCVER. The Commission notes the relatively small community of VET education academics in Australia and, as the ACDE (sub. DR107) observed, the role played by university-level study of VET teaching as a pathway into this community. Research on teaching and learning is also undertaken by this group.

The NCVER has also published research on innovation in teaching and learning in VET, for example, Figgis (2007) and Hillier (2009). State and Territory Governments also publish resources on VET teaching and learning. As suggested above, research of this type could usefully be communicated to VET trainers and assessors through professional networks.

A range of bodies provide support for PD, including RTOs and state and territory governments. As argued above, that support is not currently adequate, and recommendations 9.1 and 10.8 to 10.10 seek to address this.

Finally, as some participants have argued, the workforce lacks a body that effectively provides 'group status' benefits, including a voice on policy advice and research directions. The professional networks described above could play a role in filling this gap.

On balance, the Commission does not consider that there is a strong argument for recommending that another body be established in the VET sector.

A registration scheme for VET trainers and assessors

The why and what of registration schemes

Entry to some occupations is conditional on having been registered to practise. In others, registration exists but is optional. Mandatory schemes can be implemented in response to community concerns about the potential risks to public health and safety and to the environment from underqualified or unfit people working within an occupation. These schemes typically apply in occupations where it is difficult for a potential client to determine the quality of a service on offer, and/or where the effects of poor quality are significant.

The most common model, 'traditional' registration, is characterised by a statutory authority that is typically responsible under legislation for at least some of the following functions (in addition to administration of the registration scheme):

- determining the requirements for initial and continuing registration

- approving and accrediting courses for members of the occupation

- monitoring the standards of education and training provision to members of the occupation

- handling complaints and disciplinary actions against members of the occupation

- promoting the occupation to the broader community.

Maintenance of a registration board generally leads to relatively high costs, recouped via membership fees imposed on those who work in these occupations. 'Light-handed', and lower-cost, forms of mandatory regulation are sometimes adopted when the potential adverse effects of poor quality service are not as significant. These include:

- Co-regulation, which arises when a private organisation is endorsed by government under legislation to regulate the conduct and standards of its members (VEETAC 1993a). A co-regulatory scheme has applied for engineers in Queensland, for example, since 2008.

- De facto registration, which arises when legislation authorises only people who meet certain requirements to practise an occupation, without further reference to a registration authority (CRR 1998). Liquor licensing laws, for example, create registered occupations by requiring people serving alcohol to have certain qualifications (PC 2009b).

- Negative licensing, which 'refers to legislation detailing what is not acceptable in the operation or activities of an occupation and providing sanctions for unsatisfactory conduct' (VEETAC 1993a, p. xii). A negative licensing scheme used to be in force for finance brokers in Victoria.

Voluntary registration, or self-regulation, schemes are typically established by members of an occupation, and membership is a signal to the public that a person has certain characteristics. For example:

> Consumers rely on a practitioner's voluntary membership of a professional association as an indication that the practitioner is suitably qualified, safe to practise and subject to a disciplinary scheme. (Carlton 2003, p. 20)

Accountants (appendix F) and engineers (excluding engineers in Queensland), for example, operate under schemes of this type.

A scheme for VET professionals?

Registration schemes are typically used when members of an occupation can 'hang out their shingle' and offer goods and services as sole operators. One function of a registration scheme is to address the information asymmetry between the service provider and consumer. In the case of VET, that information asymmetry is mediated by RTOs — VET practitioners cannot deliver accredited training outside an RTO.

Current regulatory frameworks in the VET sector cover many of the other functions of a traditional registration body, including: determination of minimum standards for trainers and assessors; accreditation of VET courses; and complaints mechanisms.

Nonetheless, there have been some calls for a scheme for trainers and assessors, as exists in all jurisdictions for school teachers. Proponents regard registration as a means of enhancing the status of VET practitioners and mandating PD. Study participants' opinions on the desirability of a registration scheme were diverse (box 10.7).

> Box 10.7 **Views on the desirability of registration are mixed**
>
> … State, Territory and Commonwealth governments [should] engage collaboratively with the TAFE teaching profession and their union to develop a framework for vocational teacher registration that acknowledges the particular nature and circumstances of TAFE and VET teaching, and that facilitates recognition of the high quality teaching practice that occurs in TAFE. (AEU, sub. 34, p. 5)
>
> Registration of VET practitioners would promote professional standing and may attract entrants to the VET workforce. Registration usually comes with requirements for continuing professional development, which would also benefit the VET workforce and, consequently, improve VET outcomes. However, registration should not be used as a barrier to entry for specialist trainers or the exclusion of excellent trainers and assessors embedded in enterprises that have a substantive operational role in the company. (Minerals Council of Australia, sub. 23, p. 15)
>
> VTA and TDA strongly support this recommendation [that governments should not endorse or contribute funding to a registration scheme for VET professionals] and reiterate a key message from our original submission … that there is no consistent view from TAFE providers (and others) on the benefits of registration for VET practitioners and other professionals. (VTA and TDA, sub. DR94, p. 13)
>
> Registration of the VET workforce, potentially possible at a national level with a national regulator, would not in itself, necessarily lead to either an improvement in learning outcomes or improved professional standing and practice … this is more likely to occur with an increase in the opportunities and options available to the workforce in terms of associating with peers through networks or formal bodies, as well as expanding professional development and industry currency options. (IBSA, sub. 8, p. 11)
>
> Professional registration of VET practitioners is a matter for the occupational leaders but it is difficult to see how registration, whether on a State by State or national basis, would have a major impact on the quality or responsiveness of the sector. Professional/occupational registration systems tend to rely predominantly on entry requirements and maintenance of membership rather than a genuine attempt to raise standards or apply necessary punitive actions on those failing them. (Construction and Property Services Industry Skills Council, sub. 46, p. 7)
>
> Any proposal to introduce a system of registration for VET professionals, similar to the systems operating in the schools sector is opposed. It is considered that this would further enshrine the 'educational' framework within which the system currently operates. It needs to be recognised that registration or the attainment of qualifications is not the only way to professionalise the workforce. (WA Department of Training, Central Institute of Technology, sub. 26, p. 4)

Because many of the functions of a traditional registration board are covered by regulatory settings in the sector, registration would be a high-cost approach to improving PD and the status of the workforce. It might also create a barrier to entry. As the Deaf Society noted:

> From a quality point of view, registration would simply be duplicating the work that is already done by the AQTF requirements for teacher qualifications, and would indeed be an undesirable barrier to entry into the workforce. (sub. 7, p. 3)

The UK experience exemplifies the Deaf Society's concern. Research has found that registration of VET teachers in the United Kingdom (which requires pre-service teacher training) has created a barrier to entry to the profession (appendix F).

The Commission is not convinced that a registration scheme is the most cost-effective mechanism for building the group status of the VET workforce. Similarly, as argued above, the Commission would not support an approach that mandated PD. The recommended approaches to improving PD and the status of the workforce, described above, are preferred.

Recent NQC-commissioned research canvassed support for a voluntary registration scheme:

> Those in favour of voluntary professional certification believed that such a system would encourage practitioners to extend their capabilities. Those not in favour of voluntary professional certification believed that such schemes not only rewarded the converted, but also rewarded those that were good at gaining professional certification, but not necessarily good at training and assessing. In other words, professional certification has a validity problem. (NQC 2010a, pp. 9–10)

It is unclear how much support there would be for a voluntary registration scheme. If a group of VET workers did want voluntary registration, the Commission considers that any such scheme would confer benefits almost solely on its members, and should, therefore, be member-funded.

RECOMMENDATION 10.11

Governments should not endorse or contribute funding to a registration scheme for VET trainers and assessors.

11 The Commission's proposals

In this study, the Commission has made a number of recommendations that, considered as a whole, amount to a suite of articulated reforms, targeted at enhancing the efficiency and effectiveness of the Vocational Education and Training (VET) workforce. In this chapter, the key reforms are reviewed, from two main perspectives. First, the questions of what the reforms seek to deliver and their benefits are examined (section 11.1). The second perspective is the possible grouping and sequencing of some of the proposed measures (section 11.2).

11.1 What can be expected from the proposals?

The recommendations put forward by the Commission are intended to improve the efficiency and effectiveness of the workforce's contribution to the quality of VET over the medium to long term, and to that contribution being sustainable. The Commission considers that the VET sector should have a number of objectives:

- building human capital by inspiring, stimulating and enriching learners from all segments of the community

- assisting the workforce to acquire the skills needed by the economy

- contributing to social inclusion and civic participation.

An efficient, effective and sustainable workforce

The Commission's recommendations for changes to the way the VET workforce operates are based on an assessment of that workforce's capacity and capability. These two complementary aspects were examined in terms of the expectations and challenges faced by the workforce at present, but also taking account of emerging and potential challenges. This scan revealed that, within the next ten years, the VET sector and its workforce will need to confront economic, social and demographic forces, the substantial human capital agendas of governments and changing student and industry needs.

The package of reforms recommended by the Commission is informed by the views expressed by participants in this study. It is also based on detailed analyses of the

evidence, both qualitative and quantitative, gathered about the VET workforce. (In undertaking quantitative analyses, the Commission noted, and has recommended ways to overcome, the significant limitations of existing data sources about the VET workforce.) Finally, the reforms are informed by the Commission's views on a number of economic issues that cut across the entire economy and labour market.

The Commission expects that the set of proposed reforms will make the VET workforce, individually and as a group, more flexible, more adaptable and more capable. It will possess better industry currency and educational skills. It will have a greater ability to respond to the needs of a growing group of disadvantaged learners. It will be increasingly able to deliver in the workplace and from a distance. It will embody better managerial and entrepreneurial skills. Finally, it will have the profile required to be a full and valued participant in the growing tertiary sector. Specific reforms are discussed further below, in the context of net community benefits and implementation timeframes.

Net community benefits

The community as a whole expends a considerable amount of resources on the provision and consumption of VET. Private investment in training is a matter for individual choice, motivated by the prospect of private returns on their human capital. This choice is best left to individuals, and any private training transaction that takes place may be assumed to deliver a net private benefit, to the learner, his or her employer, or both.

However, the community also directs considerable public resources to the provision of VET. In 2008-09, governments together devoted $5.5 billion to the VET sector, amounting to about 9 per cent of total public expenditure on education in Australia (ABS 2010d). This represents a substantial community effort towards the provision of a service that, as mentioned, confers private benefits. Nonetheless, government involvement is justified by a concern for making those private benefits accessible to all members of the population, regardless of characteristics or background. It is also motivated by the knowledge that, even if access by individuals were equitable, market failure could mean that provision of education and training would be sub-optimal.

This study has identified a number of benefits that are likely to flow from a VET workforce that is able to deliver better, and more timely, training, to more people in more diverse environments. At an aggregate level, this outcome would mean that the Australian economy has access to more human capital with which to produce goods, services and wealth. In a resource-rich but currently capacity-constrained

economy like Australia's, the ability to alleviate or remove a skills bottleneck is likely to deliver great economic benefits in a fairly short time. Moreover, such benefits might continue to accrue over longer periods.

At a system level, a more efficient and effective VET workforce would mean that fewer resources would need to be expended by individuals, governments and society in order to achieve the results they seek. At a more personal level, individuals will acquire vocational skills that align with the modern practices and needs of industry.

In the short term, the Commission's reforms will translate into more graduates and module completers who have benefitted from having trainers and assessors with greater command of industry practices, educational skills and modern delivery techniques. In the medium-to-long term, the reforms will translate into more people in well-paid and satisfying employment, and more employers who reap the rewards of their workforce's increased productivity, including in the VET sector itself.

The additional economic benefits of a better VET workforce, outlined above, are likely to be significant. However, the Commission considers that another key benefit lies in the ability of the workforce to successfully engage with a segment of the population that, until now, has proved difficult to reach. Learners who experience disadvantage — because of gaps in their language, literacy and numeracy skills, a non-English speaking or Indigenous background, disability, or living in a remote or very remote area — continue to be a largely underutilised resource in the economy and society. Their full potential for participation in both areas has been hindered by a lack of foundation and vocational skills. The VET workforce will, in the next ten years, be required to equip those learners with the tools required in a modern economy. The Commission's recommendations are designed to facilitate and hasten this process.

There will inevitably be costs associated with some of the Commission's proposals. For example, employers will need to assist their existing trainers and assessors with gaining a formal teaching qualification relevant to their role (including, in some cases, via a transparent Recognition of Prior Learning process). The Commission has also recommended that State and Territory Governments assess the adequacy of funding provisions for continuing professional development.

Whenever justified, however, the Commission has heeded advice from stakeholders on opportunities to limit additional cost burdens. For example, the Commission has not maintained its draft recommendation for external assessment of two supervised training sessions, pending further evidence on the quality of in-house assessment by

Registered Training Organisations (RTOs) delivering the TAE40110 Certificate IV in Training and Assessment.

At an aggregate level, the Commission does not anticipate that the reforms it has recommended in this study will impose significant costs on the rest of the economy.

On balance, the costs of implementing the recommendations are likely to be small, relative to the sum of tangible and intangible benefits that are capable of being generated. The Commission believes, therefore, that its package of proposals satisfies a net community benefit test.

11.2   Implementation timeframes

In accordance with this study's Terms of Reference, the Commission has considered issues affecting the VET workforce over the short, medium and long term. It has interpreted this timeframe to cover a period of about ten years.

Not all of the Commission's recommendations, however, require implementation early in that period for maximum benefits to be produced. Some measures are time critical and should be implemented as a matter of priority. Some are precursors to longer-term measures and others have the potential for clear and immediate payoffs. Conversely, some actions should only be undertaken following extensive consultation and careful design, which will take time.

Another, related consideration for the timing of implementation is that some of the Commission's recommendations might benefit from being grouped, to harness synergies in their execution.

Short-term measures

The Commission's recommendations that are appropriate for implementation in the near future are those aimed at addressing situations that, in the Commission's view, serve to create clear (and, sometimes, long-standing) inefficiencies in the way the VET workforce is able to operate.

Measures to improve the capability of trainers and assessors

Issues affecting the quality delivery of the Certificate IV in Training and Assessment (TAA) should be addressed without delay. In this report, the Commission reiterates its view that, when it is well taught, the Certificate represents a satisfactory minimum standard for trainers and assessors with more than an

occasional involvement in VET. This is true both for practitioners based in institutes, and for those based in enterprises. However, there are indications that regulatory non-compliance of some RTOs means that the qualification does not always equip all their students with the level of skills required to deliver VET effectively. In particular, assessment skills have been repeatedly questioned by some stakeholders, including in industry.

Given that the ability to assess is at the core of VET's competency-based approach to training, the Commission recommends that the Certificate should maintain its status as a high-risk qualification and that those state regulators who have not yet identified the Certificate IV in TAA as such should take early action to remedy this deficiency. It also recommends that those regulators and, from July 2011, the National VET Regulator, take the qualification into account when assessing an RTO's risk profile.

Moreover, the Commission recommends that all regulators publish information on audit outcomes for RTOs, to further incentivise providers to focus on their quality of training and assessment, and to give their customers and funders greater confidence in the quality of the products on offer. This initiative should be supported by the publication of RTO-level performance indicators on the forthcoming *My Skills* website.

Measures to improve the capacity and flexibility of the TAFE sector

Industrial relations is another area where the Commission expects reform to produce significant benefits within a relatively short timeframe. The TAFE segment of the VET sector has long been restricted in its ability to adapt, adjust and thrive within the new VET paradigm of competition, contestability and user choice. Inefficiencies arise due to industrial relations arrangements that apply a range of restrictions on how TAFEs can conduct their business. Undifferentiated levels of pay in TAFE do not distinguish skills in demand from others that are more commonplace, leading to staff shortages. Rigid arrangements governing hours worked, use of casuals and job design are no longer appropriate for an environment in which VET is increasingly valued for its flexibility and responsiveness, and where TAFE needs to compete for skilled workers with private and enterprise providers.

The Commission anticipates that introducing more contemporary human resources management practices into the public VET sector would enhance its ability to:

- set wages and conditions likely to attract and retain the best candidates, in adequate numbers, and engage staff on the most appropriate employment basis, including as casual or ongoing employees

- organise work in the way that best suits the business goals of individual organisations, by using staff resources as and when they are most useful

- ensure that incentives are in place for the VET workforce to develop its vocational and educational skills, broadly defined.

The Commission notes that, across Australia, some TAFE agreements are currently under negotiation and the remainder are due for renegotiation within the next 18 months. These negotiations would provide an early opportunity for State and Territory Governments to consider the Commission's recommendations.

Building a solid base for better workforce data collection

Short-term measures should include laying the foundations for the gathering of comprehensive, consistent and accurate data regarding the VET workforce. The Commission regards the availability of such data as a crucial prerequisite for a range of other measures it has recommended. It is only through better data collections that VET policy makers, providers and stakeholders can access the information necessary to determine where, and how, workforce expansion and development should take place as a matter of priority. Efforts to improve VET workforce data collection and dissemination should commence without delay, through the National Centre for Vocational Education Research (NCVER) developing a National Standard for VET workforce data, in consultation with VET stakeholders.

Medium-term measures

Other Commission recommendations lend themselves more to progressive implementation. Key among those recommendations are those that seek to ensure that the capability of the VET workforce is maintained and enhanced, through adequate minimum standards of training and assessment, and through appropriate professional development (PD).

Ensuring that all VET trainers and assessors hold appropriate qualifications

On balance, the Commission concludes that the Certificate IV in TAA, when well taught, is an appropriate minimum qualification for the development of essential foundation competencies for VET practitioners and dedicated trainers and assessors working in enterprise RTOs. This group of trainers and assessors works in institutions or firms, but all have the delivery of VET as their main job. The Commission considers, therefore, that they should be required to hold the

qualification that the VET industry has itself endorsed as containing the competencies necessary for effective training and assessment.

Other groups of VET trainers or assessors should not be subject to the same requirement. Workplace trainers and assessors who work under the supervision of dedicated trainers and assessors should only be required to hold a Skill Set relevant to their role. Similarly, an appropriate Skill Set only should be required of assessor-only workers. Last but not least, industry experts should be encouraged, but not required, to hold a relevant Skill Set.

The requirements described above should take effect within two years of the date of any NQC determination mandating the qualifications, or within two years of a new recruit's commencement of employment after that date.

The two-year period is inclusive of work under supervision. During a supervised teaching period, a trainer and assessor need not hold any full qualification or Skill Set, but should be working toward completion of the appropriate qualification for his or her role, if he or she intends becoming a VET practitioner (or dedicated trainer and assessor in an enterprise).

The training and assessment qualifications the Commission recommends for different groups of VET workers are summarised in Q&A form in figure 10.1.

Improving the contents of the Certificate IV in TAA

As the Industry Skills Council with responsibility for the Certificate IV in TAA, Innovation and Business Skills Australia should continue its efforts to improve the relevant TAE10 Training and Education Training Package. In particular, it should amend the Evidence Guide for TAEDEL401A to require those seeking to demonstrate competence at the Certificate IV level to prepare and deliver at least four supervised training sessions. It should also develop qualifications and Skill Sets so that the Package more completely covers the diversity of roles within the VET workforce, and reflects a full capability framework for the workforce.

Figure 11.1 The Commission's recommended teaching qualification requirements for VET trainers and assessors

Q: Do you teach in a specialised VET provider or in an enterprise RTO?

A: Enterprise RTO
Q: do you hold the latest Certificate IV in TAA?

A: No
Q: are you a dedicated workplace trainer and/or assessor for whom VET is the main job within the enterprise?

A: No, VET is not my main job
You need to obtain the relevant training and/or assessing Skill Set within two years of commencing employment* In the meantime, you can work under supervision by a dedicated trainer or assessor who holds the Certificate IV in TAA

A: Yes
You need to obtain the Certificate IV within two years of commencing employment* In the meantime, you can work under supervision by a dedicated trainer or assessor who holds the Certificate IV in TAA

A: Specialised VET provider
Q: do you hold the latest Certificate IV in TAA?

A: No
Q: Have you demonstrated equivalent competencies to your employer?

A: No
Q: Do you believe you have the relevant competencies?

A: Yes
You need to demonstrate your competencies to your employer via a formal RPL process, within two years of commencing employment*

A: No
Q: Are you an industry expert or guest lecturer who works only intermittently in VET?

A: Yes
No need for change, but consider obtaining a relevant Skill Set (for example, pertaining to delivery)

A: No, I work regularly in VET
Q: Are you a person who does assessment-only work?

A: Yes
If not already holding it, you need to acquire the assessor Skill Set immediately (assessment-only work under supervision is not permissible under the AQTF)

A: No, I do both training and assessment
Q: Are you employed under supervision?

A: Yes
You need to acquire the Certificate IV in TAA within two years of commencing employment*

A: No
You need to acquire the Certificate IV in TAA within two years of commencing employment.* In the meantime, you can work under supervision from someone who holds the Certificate IV in TAA

A: Yes
No other qualification is required to teach VET. However, you should consider whether additional qualifications should form part of your professional development

* For those workers already employed, recommended changes should take place no later than two years after the relevant NQC determination is adopted.

302

Professional development

The Certificate IV in TAA cannot, even in an improved configuration, remedy all of the capability gaps that the Commission has identified as affecting the VET workforce. These include: delivery of higher-level qualifications; assessment of Recognition of Prior Learning and Recognition of Current Competency; information and communication technologies skills; skills in workplace-based delivery; and management and leadership skills. In addition, the workforce's ability to deliver language, literacy and numeracy skills, although satisfactory at present, is likely to be put to the test in coming years. Building the educational capabilities of trainers and assessors across all these areas will require better coordinated, targeted and supported PD.

Enhanced PD is also required to address the industry currency gaps of some VET trainers and assessors. Despite regulatory requirements at the RTO level, industry currency is too often patchy and ad hoc, especially where non-permanent trainers and assessors are concerned.

Responsibility for appropriate PD in the VET workforce is shared between individuals, providers, industry and governments. There are several reasons why, at present, PD is deficient: weak links with performance management in TAFEs; jurisdictional differences in awards and enterprise agreements; lack of a capability framework and associated professional development options; inadequacy and poor targeting of current funding; and over-reliance on industry release to maintain industry currency.

The Commission has made a range of recommendations designed to correct each of these deficiencies.

Data

Another medium-term initiative recommended by the Commission is aimed at addressing VET workforce data deficiencies. The Ministerial Council for Tertiary Education and Employment should charge the NCVER with developing a comprehensive instrument with which to identify, measure and describe the VET workforce. This instrument would rely on the National Standard for workforce data, already mentioned in the context of short-term measures, and would be designed in consultation with stakeholders. Implementation in stages is likely, so as to minimise the reporting burden for providers.

A   List of submissions, visits, consultations and roundtables

Table A.1   **List of submissions**

Individual or organisation[a]	Submission number
ABS	DR70
ACTU	31, DR80
Aged & Community Services Australia	DR97
ANZ	DR113
Australian Chamber of Commerce and Industry	42
Australian College of Educators	DR95
Australian Council for Private Education and Training	50, DR98
Australian Council of Deans of Education	DR107
Australian Education Union	34, DR101
Australian Industry Group	14, DR88
Australian Institute of Welfare and Community Workers Inc	28, DR77
Australian Nursing Federation	12, DR83
Australian Vocational Education and Training Research Association	35, DR89
Bauer, Rod	6
Bedson, Elizabeth	2
Blake, Allison	17
Boughton, Bob	DR68
Business SA	DR90
Career Industry Council of Australia	DR61
Chamber of Commerce and Industry (Qld)	24
Charles Darwin University	40
Children and Families Research Centre	1#
Community Colleges Australia	53, DR104
Community Services and Health Industry Skills Council	55, DR86
Construction and Property Services Industry Skills Council	46
CPSU – SPSF	DR106
Dalitz, Robert	10
Deaf Society of NSW, The	7
Department of Education, Employment and Workplace Relations	60, DR110
Department of Corrective Services (WA)	45
Department of Education and Training (NSW)	43
Department of Further Education, Employment, Science and Technology (SA)	54

(Continued next page)

Table A.1 (continued)

Individual or organisation[a]	Submission number
Department of Training and Workforce Development (WA)	26#
Doherty, Frank	DR72
EE-Oz Training Standards	20, DR78
Electrical and Communications Association	25
Ellis, Vanessa	21#
Enterprise Registered Training Organisation Association	DR91
Flexible Learning Advisory Group	DR99
ForestWorks	19, DR96
Gordon, The	9
Growcom	30
H2O Pro Pty Ltd	36
Health and Community Services Workforce Council	DR85
iAscend TAFE Pty Ltd	DR115
Industry Skills Councils	41
Innovation & Business Skills Australia	8, DR74
Jobs Australia	44
John Mitchell and Associates & JMA Analytics	37, DR102
Joint TAFE Associations	48
Kalgrove Ltd	DR63
Luckus, Valentina	DR84
Manufacturing Skills Australia	22
Marley, Jill	DR66
Master Builders Australia	DR67
Mathematical Association of Victoria	27
McIntosh, Andrew	DR112
Meehan, Suzanne	DR71
Melbourne Graduate School of Education	DR65
Michael Minns Human Resources Pty Ltd	49
Minerals Council of Australia	23
Monash University	32
Moodie, Gavin	DR64
National Centre for Vocational Education Research	DR69
National Quality Council	52, DR76
National VET Equity Advisory Council	58, DR75
New South Wales Teachers Federation	47
NSW Community Services & Health ITAB	38
NSW Government	57, DR82
O'Donnell, Carol	3#, DR62
Polytechnic West	5, DR81
Queensland Tourism Industry Council	4
Ryan, Peter	15
Saulo, Benson	DR109

Table A.1 (continued)

Individual or organisation[a]	Submission number
Saunders, Lynn	16
Service Skills Australia	13#, DR73
Skills Australia	59, DR100
Skills Tasmania	29
Smith, Erica	39
South Australian Training and Skills Commission	51#
TAFE Development Centre	18, DR92
TAFE Directors Australia and Victorian TAFE Association	DR94
Toner, Philip	DR79
TVET Australia	56, DR87
Victoria University	11
Victorian TAFE Association and TAFE Directors Australia	DR94
Walker, Jeff	DR103
Western Australian Government	DR105
Williams, Adrian	DR108
Women in Adult and Vocational Education	33#

a A hash (#) indicates that the submission includes attachments.

Table A.2   **List of visits and consultations**

Location/Interested parties

ACT

ABS (National Centre for Education and Training Statistics)
Australian Chamber of Commerce and Industry
Australian College of Educators
Community Colleges Australia
Department of Education, Employment and Workplace Relations
Department of Treasury
Enterprise Registered Training Organisation Association
Industry Skills Councils
Skills Australia

New South Wales

Adult and Community Education NSW – Stakeholder Forum
Goulburn Ovens Institute of TAFE
Group Training Australia
John Mitchell and Associates
Department of Education and Training
Riverina Institute of TAFE
Service Skills Australia

Northern Territory

Batchelor Institute of Indigenous Tertiary Education
Charles Darwin University
Department of Education and Training

Queensland

Carrick Institute
Department of Education and Training
Skills Queensland
Southbank Institute of Technology

South Australia

Department of Further Education, Employment, Science and Technology
Harris, Roger
National Centre for Vocational Education Research

Tasmania

Jenard
Tasmanian Polytechnic
Skills Institute
Skills Tasmania

Table A.2   (continued)

Location/Interested parties

Victoria

Adult Community and Further Education
Albury – Wodonga Community College
Australian Council for Educational Research
Australian Council for Private Education and Training
Australian Council of Deans of Education
Australian Education Union
Australian Industry Group
Centre for Economics of Education and Training
Department of Education and Early Childhood Development
Fair Work Australia
Innovation & Business Skills Australia
Kangan Institute
LH Martin Institute
National Quality Council
National VET Equity Advisory Council
National VET Regulator Taskforce
RMIT University
Skills Victoria
TAFE Development Centre
TAFE Directors Australia
TVET Australia
Victorian Association of VET Professionals (VISTA)
Victorian TAFE Association
Wodonga TAFE
Work-based Education Research Centre

Western Australia

Chamber of Commerce and Industry
Department of Education
Department of Training and Workforce Development
Polytechnic West

Table A.3 **List of roundtable attendees**

Location/Attendee

Canberra

Australian Chamber of Commerce and Industry
Batchelor Institute of Indigenous Tertiary Education (NT)
Canberra Institute of Technology
Carrick Institute (Qld)
Community Colleges Australia
Department of Education and Training (NSW)
Department of Prime Minister and Cabinet
Department of Treasury
John Mitchell and Associates
Kim Bannikoff Consulting
My Gateway
National Centre for Vocational Education Research (SA)
North Coast TAFE (NSW)
Skills Australia
Skills Queensland
Think: Education Group
Woolworths Ltd

Melbourne

Adult Community and Further Education
Allen Consulting Group, The
Australian Council for Educational Research
Australian Council for Private Education and Training
Australian Education Union
Australian Industry Group
Ballarat University
Beckerleg, Jo — Swinburne University
Collis, Grant — NMIT
Department of Further Education, Employment, Science and Technology (SA)
Enterprise Registered Training Organisation Association
Innovation & Business Skills Australia
KAL Multimedia
Kangan Institute
LH Martin Institute
National Quality Council
National Centre for Vocational Education Research (SA)
RMIT University
Skills Victoria
Swinburne TAFE School of Business
TAFE Development Centre

Table A.3   (continued)

Location/Attendee

TVET Australia
Victorian TAFE Association
Work-based Education Research Centre

Sydney

Community Colleges Australia
Department of Further Education Research Centre – Victoria University
Department of Training and Workforce Development (WA)
John Mitchell and Associates
Kim Banikoff Consulting
LH Martin Institute
North Coast Institute
Skills Australia
Skills Queensland
TAFE – New South Wales
Think: Education Group

B   Detailed data on VET activity

B.1   Dimensions of training output

As discussed in chapter 2, although the Vocational Education and Training (VET) sector can be defined in a number of ways, Registered Training Organisations (RTOs) are the focus of analysis in this report. This appendix, as far as available data permit, contains estimates of the size and characteristics of RTO activity.

However, as is also acknowledged in chapter 2, education and training that is vocational in nature occurs outside RTOs. To put the data on RTO activity presented in section B.2 into perspective, estimates of total VET activity are presented, following an examination of RTO numbers.

RTO numbers

RTOs range from large, multi-campus Technical and Further Education Institutes (TAFEs) to small niche private providers, and include enterprise training functions, not-for-profit adult community education providers, schools and higher education institutions. In all, the National Training Information Service (NTIS), managed by the Department of Education, Employment and Workplace Relations (DEEWR), reports data for 14 categories of RTOs. Data held on the NTIS are reported by the state and territory bodies responsible for registering training organisations.

According to the NTIS, at August 2010, there were 4998 RTOs in Australia (table B.1). Of these, three-quarters were private training providers.

Table B.1 Registered training organisations on the National Training Information Service, August 2010

	RTOs	
	no.	%
Higher education	**12**	**0.2**
University — government	11	0.2
University — non-government Catholic	1	0.0
Traditional VET providers	**4326**	**86.6**
TAFE and other Government providers	*171*	*3.4*
Technical and Further Education institute	59	1.2
Enterprise — Government	112	2.2
Community-based adult education providers	*423*	*8.5*
Private training providers	*3732*	*74.7*
Education/training business or centre: Privately operated registered training organisation	3147	63.0
Enterprise — non-Government	211	4.2
Equipment and/or product manufacturer or supplier	5	0.1
Industry association	332	6.6
Professional association	37	0.7
Schools	**568**	**11.4**
School — Australian Technical College	5	0.1
School — Catholic	105	2.1
School — Government	345	6.9
School — Independent	113	2.3
Other — not elsewhere classified	**92**	**1.8**
Total	**4998**	**100.0**

Source: Unpublished data from the Department of Education, Employment and Workplace Relations (DEEWR).

The National Centre for Vocational Education Research (NCVER) reports data for four summary categories of provider which, together, comprise all RTOs identified by NTIS (table B.2). However, the NCVER collections do not include the fee-for-service training activity of privately-owned RTOs.

Table B.2   Mapping of NTIS RTO types into NCVER provider types

NTIS RTO type	NCVER provider type
University — Government	TAFE and other government providers
University — Non-Government Catholic	Other registered provider
Technical and Further Education institute	TAFE and other government providers
Enterprise — Government	TAFE and other government providers
Community-based adult education provider	Community education provider
Education/training business or centre: Privately operated registered training organisation	Other registered provider
Enterprise — Non-government	Other registered provider
Equipment and/or product manufacturer or supplier	Other registered provider
Industry association	Other registered provider
Professional association	Other registered provider
School — Australian Technical College	Other registered provider
School — Catholic	Other registered provider
School — Government	Other registered provider
School — Independent	Other registered provider
Other — not elsewhere classified	Other registered provider

Source: NCVER 2009a; Foley, P., NCVER, pers. comm., 26 August 2010.

Estimates of VET activity

There are a number of sources of information on VET activity in Australia. The two key sources are administrative data collected annually from states and territories by the NCVER, and the Australian Bureau of Statistics (ABS) Survey of Education and Training (SET) which is run every four years and based on a sample of households. Activity data are also collected in irregular surveys by bodies like the Australian Council for Private Education and Training (ACPET) and the Enterprise Registered Training Organisation Association (ERTOA).

Summary estimates of activity from these sources are presented in table B.3. No single data source is perfect. SET estimates reflect both RTO and non-RTO activity. The NCVER data cover only some RTO activity, excluding fee-for-service delivery by private RTOs. The attachment at the back of this appendix provides some further information on SET and NCVER data. The ACPET data cover all private RTO activity, but reflect activity at only one point in time (box B.1). The ERTOA data (not tabulated) are presented in terms of the number of qualifications completed by ERTO students in 2008 — an estimated 90 000.

Table B.3   Estimates of total VET activity, 2008[a]

	Students	Course enrolments	Contact hours
SET estimates	'000	'000	million
Formal learning	1 355	1 515	178.9
Non-formal learning	3 040	5 599	122.8
Total	**na**[b]	**7 114**	**301.7**
NCVER figures[c]	1 670	2 031	409.2
ACPET estimates[d]	1 440	**na**	**na**

a Estimates for non-formal learning relate to the 12 months prior to SET09, that is, March to July 2009, depending on when a survey participant was interviewed. **b** Some people undertake both formal and non-formal learning in a year. The total number of VET students will, therefore, be less than the sum of each student type. **c** Data only include activity in the publicly-funded VET sector. **d** Full-time equivalent number of students enrolled at the point of the survey (May–June 2010). **na** Not available.

Source: Unpublished data from the 2005 and 2009 ABS *Surveys of Education and Training*; NCVER, 2009, *Students and Outcomes 2008*, NCVER, Adelaide; ACPET 2010a, *Education Industry Survey* (unpublished).

Within the SET data, TAFEs accounted for an estimated 20 per cent of total enrolments, and private providers (but not necessarily RTOs) for about 43 per cent (data not shown). Training provided within firms (almost certainly by TAFEs and other RTOs in some instances) accounted for about one-third of enrolments.

Box B.1   ACPET estimates of private provider activity

In May and June 2010, consulting firm WHK Horwath undertook a survey of private Registered Training Organisations (RTOs) on behalf of the Australian Council for Private Education and Training (ACPET 2010a). Data were collected on: revenue by source; equivalent full-time (EFT) staff employed at the survey date; and equivalent full-time students at the time of the survey, by qualification level and industry area of delivery.

The survey yielded an estimate of 1.44 million EFT students enrolled with private RTOs at the time of the survey (plus or minus 372 000). Many students study part-time, so that the ACPET estimate would translate into an actual student count significantly higher than 1.44 million.

The ACPET survey was based on a small sample of private RTOs (497 in total, representing a response rate of 12 per cent). Because of this, as acknowledged by ACPET, the reliability of the population estimates is not high, and ACPET recommends caution when analysing the results.

ACPET has indicated a willingness to cooperate with any government-initiated efforts to pursue more robust data collection on the delivery effort of private RTOs, especially where fee-for-service delivery is concerned. As a first step, this organisation formally endorsed the survey of VET sector employers and employees that was conducted by DEEWR in September 2010 (data from which have been used in this study).

Source: Vivekanandan, B., ACPET, Melbourne, pers. comm., 15 November 2010.

NCVER data have the advantage of having been collected on a reasonably consistent basis over many years, thus allowing trends in delivery to be examined in a number of dimensions. As noted above, however, they have a key gap concerning fee-for-service delivery by private providers. The Commission estimates that the NCVER data capture at least 70 per cent of RTO activity.

B.2 Diversity of the sector

Data on the size and characteristics of activity in the publicly-funded VET sector are presented in the following tables.

Table B.4 Students, course enrolments and hours of delivery by provider type, publicly-funded VET sector, 2000 to 2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2000–2009
Students	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	Growth in students%
TAFE and other govt. providers	1329.1	1304.8	1328.4	1308.5	1268.4	1267.2	1325.1	1312.8	1279.8	1312.3	-1.3
Community education providers	227.8	229.5	208.8	244.3	171.4	199.7	164.8	164.7	156.3	151.9	-33.3
Other registered providers	164.5	160.0	158.2	167.6	160.5	177.5	179.6	179.6	204.0	230.2	39.9
Students at various providers	–	–	–	7.2	6.1	6.4	6.5	7.9	10.3	12.3	
Total (students)	**1721.4**	**1694.4**	**1695.4**	**1727.6**	**1606.4**	**1650.8**	**1676.0**	**1665.0**	**1696.5**	**1707.0**	**-0.8**
Course enrolments	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	Growth in enrol's %
TAFE and other govt. providers	1679.1	1670.8	1685.7	1677.5	1623.2	1629.2	1709.4	1708.4	1720.1	1691.8	0.8
Community education providers	182.1	168.9	143.4	185.1	120.5	81.3	83.8	92.6	87.2	93.0	-48.9
Other registered providers	174.9	163.0	166.4	187.4	179.3	189.6	195.6	192.8	223.7	259.9	48.6
Total (course enrolments)	**2036.0**	**2002.7**	**1995.5**	**2050.1**	**1923.0**	**1900.0**	**1988.8**	**1993.8**	**2031.0**	**2044.7**	**0.4**
Hours of delivery	million	million	million	million	million	million	million	million	million	million	Growth in hours %
TAFE and other govt. providers	269.1	295.2	303.3	307.7	301.2	309.6	318.4	333.1	345.1	368.2	36.8
Community education providers	12.4	12.7	14.3	15.6	12.8	14.7	14.6	17.6	17.3	18.4	48.3
Other registered providers	30.8	33.7	31.4	33.3	33.1	37.7	39.1	39.3	46.9	52.4	70.1
Total (hours of delivery)	**312.3**	**341.7**	**349.0**	**356.6**	**347.1**	**362.0**	**372.1**	**390.1**	**409.2**	**438.9**	**40.5**

– negligible.

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.5 **Students, course enrolments and hours of delivery by provider type, publicly-funded VET sector, 2000 to 2009**

Per cent

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Students										
TAFE and other govt. providers	77.2	77.0	78.4	75.7	79.0	76.8	79.1	78.8	78.2	76.9
Community education providers	13.2	13.5	12.3	14.1	10.7	12.1	9.8	9.9	9.2	8.9
Other registered providers	9.6	9.4	9.3	9.7	10.0	10.8	10.7	10.8	12.0	13.5
Students at various providers	–	–	–	0.4	0.4	0.4	0.4	0.5	0.6	0.7
Total (per cent)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Course enrolments										
TAFE and other govt. providers	82.5	83.4	84.5	81.8	84.4	85.7	86.0	85.7	84.7	82.7
Community education providers	8.9	8.4	7.2	9.0	6.3	4.3	4.2	4.6	4.3	4.5
Other registered providers	8.6	8.1	8.3	9.1	9.3	10.0	9.8	9.7	11.0	12.7
Total (per cent)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Hours of delivery										
TAFE and other govt. providers	86.2	86.4	86.9	86.3	86.8	85.5	85.6	85.4	84.3	83.9
Community education providers	4.0	3.7	4.1	4.4	3.7	4.0	3.9	4.5	4.2	4.2
Other registered providers	9.9	9.9	9.0	9.3	9.5	10.4	10.5	10.1	11.5	11.9
Total (per cent)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

– negligible.

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.6   **Jurisdictional differences in hours delivered by private providers, publicly-funded VET sector, 2000 to 2009**

Per cent

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Share of total national hours delivered by private providers										
New South Wales	28.0	22.2	18.1	16.2	19.7	25.7	24.1	24.0	23.2	18.7
Victoria	33.1	29.9	34.3	30.0	30.1	27.0	27.7	29.3	27.9	23.4
Queensland	13.9	24.8	26.5	23.6	17.4	16.6	17.9	17.5	20.2	24.8
South Australia	14.4	14.7	13.0	10.5	10.2	10.3	9.2	10.9	10.8	12.1
Western Australia	na	na	na	11.3	12.7	12.0	11.4	9.1	9.1	12.1
Tasmania	2.7	2.6	2.9	3.9	3.4	2.8	2.8	3.2	3.5	3.5
Northern Territory	4.1	3.3	3.0	2.6	2.7	2.9	2.8	2.7	2.5	2.7
ACT	3.8	2.4	2.1	2.0	3.8	2.8	4.0	3.5	2.9	2.9
Australia	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Share of government-funded hours delivered in each jurisdiction by private providers										
New South Wales	8.5	6.9	5.2	4.9	6.3	8.4	8.3	8.1	9.1	7.9
Victoria	13.0	12.6	13.0	12.4	12.4	12.8	13.2	12.9	14.1	12.3
Queensland	11.4	18.3	18.3	17.1	13.5	13.6	14.3	14.1	18.5	23.7
South Australia	21.9	23.4	20.5	18.7	17.5	19.6	18.7	20.0	24.0	26.8
Western Australia	na	na	na	12.4	13.7	14.4	13.9	10.6	12.0	15.8
Tasmania	16.6	16.8	16.4	20.9	17.9	16.7	16.8	17.7	21.4	24.4
Northern Territory	31.7	28.0	23.9	23.2	24.2	28.5	28.2	27.4	29.7	34.0
ACT	21.5	15.2	12.4	12.0	21.1	19.1	26.7	24.4	24.8	24.5
Australia	**11.1**	**11.3**	**10.4**	**11.0**	**11.3**	**12.3**	**12.5**	**12.1**	**13.9**	**14.6**

na not available

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981,* http://www.ncver.edu.au/statistic/publications/2244.html (accessed 7 October 2010).

Table B.7　**Students, course enrolments and hours of delivery by qualification level, publicly-funded VET sector, 2000 to 2009**

Students	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2000–2009 Growth in students %
	%	%	%	%	%	%	%	%	%	%	
AQF qual. level (major course)[a]											
Diploma or higher	11.5	11.8	11.6	10.9	11.0	10.5	10.0	10.0	10.1	11.7	1.0
Certificate IV	10.0	11.2	11.4	11.5	11.8	10.9	10.6	11.3	11.2	12.8	26.7
Certificate III	20.1	22.0	22.5	23.2	25.4	26.5	27.7	28.6	30.6	30.8	52.0
Certificate II	16.6	17.4	17.0	15.4	15.5	15.1	17.5	16.9	16.9	17.3	3.3
Certificate I	4.6	4.8	5.3	5.2	5.3	5.9	5.9	6.0	5.4	5.3	12.8
Non AQF qualification[b]	37.1	32.9	32.1	33.9	31.0	31.2	28.4	27.1	25.8	22.1	-41.1
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total students ('000)	**1721.4**	**1694.4**	**1695.4**	**1727.6**	**1606.4**	**1650.8**	**1676.0**	**1665.0**	**1699.7**	**1706.7**	**-0.9**
Course enrolments	%	%	%	%	%	%	%	%	%	%	Growth in enrol's %
AQF qual. level (course)											
Diploma or higher	10.8	11.2	11.0	10.3	10.2	10.1	9.5	9.3	9.5	10.9	1.7
Certificate IV	9.8	11.0	11.3	11.3	11.5	11.0	10.4	11.1	10.9	12.4	27.0
Certificate III	19.4	21.2	21.8	22.4	24.2	26.1	26.4	27.2	29.0	29.2	51.2
Certificate II	17.5	18.6	18.3	16.3	16.3	16.3	18.0	17.5	17.8	18.3	4.7
Certificate I	5.8	6.2	6.9	6.8	7.0	8.0	7.4	7.8	7.1	6.7	16.1
Non AQF qualification[b]	36.7	31.8	30.6	32.9	30.8	28.4	28.3	27.2	25.7	22.6	-38.3
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total course enrolments ('000)	**2036.0**	**2002.7**	**1995.5**	**2050.1**	**1923.0**	**1900.0**	**1988.8**	**1993.8**	**2031.0**	**2044.7**	**0.4**

(Continued next page)

Table B.7 (continued)

Hours of delivery	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Growth in hours % 2000–2009
	%	%	%	%	%	%	%	%	%	%	%
AQF qual. level (course)											
Diploma or higher	21.3	20.7	21.4	21.0	20.6	19.9	19.4	18.9	18.9	20.3	34.1
Certificate IV	12.6	14.1	14.8	15.3	15.5	14.8	15.0	15.3	14.8	16.5	84.1
Certificate III	26.4	27.1	27.5	29.5	31.1	31.9	33.3	34.1	35.6	35.2	87.3
Certificate II	18.6	18.4	17.0	15.2	14.3	13.7	13.5	13.3	13.2	12.9	-2.4
Certificate I	5.8	5.5	5.9	5.7	5.6	5.9	5.5	5.7	5.2	4.8	15.3
Non AQF qualification[b]	15.3	14.3	13.3	13.3	12.9	13.7	13.3	12.6	12.2	10.4	-5.1
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total hours of delivery ('000)	**267.1**	**341.7**	**349.0**	**356.6**	**347.1**	**362.0**	**372.1**	**390.1**	**409.2**	**438.9**	**40.5**

a The AQF level of study reflects the highest qualification level (major course) attempted by a student in a year. **b** Non-AQF qualification includes: secondary education; non-award courses; other education (Statements of Attainment, bridging and enabling courses and courses not elsewhere classified), and subjects only — no qualification (except for course enrolments and qualification completions).

Source: NCVER, Historical Time Series of Vocational Education and Training in Australia, from 1981, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.8 Students by field of education, publicly-funded VET sector, 2002 to 2009

Field of education (major course)[a]	2002 %	2003 %	2004 %	2005 %	2006 %	2007 %	2008 %	2009 %	Growth in students % 2002–2009
Natural and physical sciences	0.5	0.4	0.4	0.3	0.3	0.4	0.4	0.4	-24.2
Information technology	4.9	4.2	3.9	3.5	3.4	2.2	1.9	1.9	-59.7
Engineering and related technologies	15.9	15.1	16.1	16.0	17.0	16.7	16.6	16.6	5.3
Architecture and building	5.4	5.8	6.3	6.3	6.7	6.7	7.1	7.4	38.9
Agriculture, environmental and related studies	5.6	4.8	4.9	4.9	4.6	4.2	4.2	4.2	-25.5
Health	5.2	6.0	5.1	4.7	4.8	5.1	4.7	5.2	0.9
Education	3.3	3.4	3.2	2.9	2.8	3.1	2.9	3.4	2.2
Management and commerce	21.8	21.4	20.7	19.1	19.4	20.3	20.3	19.2	-11.0
Society and culture	10.0	10.7	10.2	9.9	10.2	9.7	10.4	10.3	4.3
Creative arts	3.5	3.5	3.0	2.7	2.6	2.6	2.6	2.9	-16.7
Food, hospitality and personal services	8.3	9.2	9.5	9.2	9.9	10.2	10.7	10.7	29.6
Mixed field programmes	9.7	9.7	12.0	11.8	12.0	11.9	11.4	11.4	18.0
Subject only — no field of education	5.9	5.8	4.7	8.6	6.3	6.8	6.8	6.3	6.9
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total students ('000)	**1695.4**	**1727.6**	**1606.4**	**1650.8**	**1676.0**	**1665.0**	**1699.7**	**1706.7**	**0.7**

a Field of study reflects that of the highest qualification level (major course) attempted by a student in a year.

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.9   **Course enrolments by field of education, publicly-funded VET sector, 2002 to 2009**

Field of education (course)[a]	2002	2003	2004	2005	2006	2007	2008	2009	Growth in enrol's % 2002–2009
	%	%	%	%	%	%	%	%	%
Natural and physical sciences	0.6	0.4	0.4	0.4	0.3	0.3	0.4	0.4	-33.6
Information technology	5.4	4.7	4.2	3.9	3.5	2.3	2.1	2.0	-61.3
Engineering and related technologies	16.2	15.4	16.1	16.5	17.1	16.8	16.8	16.4	3.9
Architecture and building	5.4	5.7	6.1	6.4	6.6	6.7	7.0	7.4	42.0
Agriculture, environmental and related studies	5.7	4.9	5.0	5.3	4.7	4.4	4.3	4.3	-23.2
Health	5.5	6.6	5.6	5.7	5.5	5.7	5.1	5.4	0.2
Education	3.2	3.2	3.1	3.0	2.8	3.1	2.9	3.4	7.4
Management and commerce	22.8	22.3	21.3	20.3	20.1	20.8	20.8	19.5	-12.6
Society and culture	10.4	11.1	10.4	10.3	10.3	9.7	10.3	10.2	1.3
Creative arts	3.4	3.4	3.0	2.8	2.6	2.6	2.6	2.9	-12.4
Food, hospitality and personal services	8.5	9.5	9.7	9.7	10.1	10.3	10.8	10.8	30.4
Mixed field programmes	13.0	12.9	15.1	15.8	16.4	17.4	17.0	17.3	36.5
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total course enrolments ('000)	**1995.5**	**2050.1**	**1923.0**	**1900.0**	**1988.8**	**1993.8**	**2031.0**	**2044.7**	**2.5**

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.10 Hours of delivery by field of education, publicly-funded VET sector, 2002 to 2009

	2002	2003	2004	2005	2006	2007	2008	2009	Growth in hours % 2002–2009
	%	%	%	%	%	%	%	%	
Field of education (subject)a									
Natural and physical sciences	3.1	3.2	2.8	2.6	2.5	2.3	2.1	2.0	-18.4
Information technology	4.6	4.2	3.5	3.0	2.8	2.5	2.4	2.5	-32.4
Engineering and related technologies	14.0	14.4	14.5	15.0	15.6	15.5	15.6	14.6	30.8
Architecture and building	4.5	4.6	5.0	5.1	5.2	5.5	5.7	5.8	61.8
Agriculture, environmental and related studies	2.9	2.8	2.9	3.1	2.9	2.7	2.7	2.7	15.4
Health	5.0	5.5	5.7	6.1	6.5	7.4	7.7	8.4	113.4
Education	2.3	2.2	1.9	2.0	1.8	1.9	1.9	2.1	11.1
Management and commerce	24.4	24.1	23.9	23.0	22.5	22.5	22.6	22.0	13.2
Society and culture	12.7	12.8	12.9	13.2	13.5	11.6	11.0	11.4	12.9
Creative arts	6.0	5.8	5.5	5.4	5.1	5.0	4.7	4.8	0.2
Food, hospitality and personal services	5.5	5.3	5.5	5.6	5.8	5.9	6.0	5.9	37.0
Mixed field programmes	14.9	15.1	16.0	15.9	15.8	17.2	17.4	17.8	50.1
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total hours of delivery (million)	**349.0**	**356.6**	**347.1**	**362.0**	**372.1**	**390.1**	**409.2**	**438.9**	**25.7**

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.11 **Apprentices and trainees undertaking off-the-job training, 2003 to 2009**

	2003	2004	2005	2006	2007	2008	2009	2009
	'000	'000	'000	'000	'000	'000	'000	% of students
Apprentice/trainee status								
Apprentices and trainees undertaking off-the-job training[a]	255.4	247.6	299.7	320	333.7	355.7	345.8	20.3
Not apprentices and trainees	1472.2	1358.8	1351.0	1356.0	1331.3	1344.0	1360.9	79.7
Total students (publicly-funded VET sector)	**1727.6**	**1606.4**	**1650.8**	**1676**	**1665**	**1699.7**	**1706.7**	**100.0**

a Apprentices and trainees enrolled in off-the-job training — training that occurs somewhere other than a person's work location, or in a special training facility at their place of employment.

Source: NCVER various issues, *Students and Courses*, NCVER, Adelaide.

Table B.12   VET-in-Schools students and 15 to 19 year old VET students, 2006 to 2008

	2006	2007	2008	2008	2007–08
	'000	'000	'000	% share of total	Growth in students %
School-based apprentices and trainees[a, b]	12.9	15.0	25.7	11.7	71.9
Other VET-in-Schools program students[b]	158.7	159.8	194.2	88.3	21.5
Total VET-in-Schools[b]	171.7	174.8	220.0	100.0	25.8
VET students aged 15–19 years[c]	427.9	433.2	443.6		2.4

[a] School-based apprentices and trainees include students who undertook at least one module/unit of competency in a school based apprenticeship or traineeship. [b] The large increase in the number of VET-in-Schools students between 2007 and 2008 can be partly attributed to the introduction of reporting requirements for the Queensland Certificate of Education. This entails all students in Queensland to be identified by a Learner Unique Identifier. As a result, the identification of school-based training activity is now considerably easier, as both RTOs and students are more aware and accountable for the reporting of training activity. [c] VET students aged 15–19 years comprises all 15 to 19-year-old students (which includes publicly funded and fee-for-service students) enrolled at TAFE, other government providers and community providers, as well as publicly funded VET students enrolled at private providers. That is, publicly funded VET students aged 15 to 19 years, as reported in the Students and Courses publication.

Source: NCVER 2010, *VET in Schools 2008*, NCVER, Adelaide, pp. 7 and 12.

Table B.13 **Students and hours of delivery by major funding source, publicly-funded VET sector, 2000 to 2009**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Growth in students %
Students	%	%	%	%	%	%	%	%	%	%	%
Major funding source[a]											
Commonwealth and state funding	75.9	77.3	75.3	73.3	72.4	73.7	74.5	74.7	73.8	74.7	-2.4
Domestic full-fee paying	23.0	21.5	23.4	25.4	26.3	25.0	24.1	23.2	23.9	22.5	-3.0
International full-fee paying	1.1	1.2	1.3	1.3	1.3	1.3	1.5	2.1	2.3	2.8	145.8
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total students ('000)	**1721.4**	**1694.4**	**1695.4**	**1727.6**	**1606.4**	**1650.8**	**1676.0**	**1665.0**	**1699.7**	**1706.7**	**-0.9**
											Growth in hours %
Hours of delivery	%	%	%	%	%	%	%	%	%	%	%
Funding source											
Commonwealth and state funding	88.7	87.4	86.4	84.5	84.5	84.9	84.1	83.5	82.3	81.8	29.5
Domestic full-fee paying	8.1	9.4	10.4	12.1	12.2	11.6	12.1	11.7	12.1	11.7	103.8
International full-fee paying	3.2	3.2	3.2	3.3	3.3	3.4	3.8	4.8	5.6	6.5	188.2
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total hours of delivery (million)	**312.3**	**341.7**	**349.0**	**356.6**	**347.1**	**362.0**	**372.1**	**390.1**	**409.2**	**438.9**	**40.5**

a For students with subject enrolments in more than one funding category, the major funding source is assigned in hierarchical order (Commonwealth and state general purpose recurrent funding, Commonwealth specific purpose program funding, state specific purpose program funding, international full-fee paying funding and domestic full-fee paying funding). The derivation of highest funding source for Commonwealth and state government funding for the period 2007 onward has changed to include activity associated with '53 - Recognition of current competency granted'.

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.14   **Jurisdictional differences in delivery to domestic full-fee paying students, publicly-funded VET sector, 2000 to 2009**

Per cent

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Share of total national hours delivered to domestic full fee paying students										
New South Wales	20.1	17.6	19.0	19.0	18.2	19.1	20.2	19.8	20.8	22.2
Victoria	41.3	42.0	40.8	47.0	47.1	44.7	43.4	48.0	47.1	47.7
Queensland	19.0	20.2	19.6	18.7	19.3	19.3	19.0	18.9	17.8	17.7
South Australia	9.5	10.0	10.7	7.3	6.2	6.0	6.6	5.8	5.9	5.9
Western Australia	5.3	6.1	5.7	3.9	5.2	5.8	6.3	3.1	3.0	3.0
Tasmania	3.8	3.0	2.9	3.1	3.3	3.3	3.1	3.6	4.0	2.3
Northern Territory	0.4	0.1	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.4
ACT	0.7	0.8	1.1	0.8	0.5	1.4	1.1	0.5	1.0	0.7
Australia	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Share of hours delivered to domestic full fee paying students in each jurisdiction										
New South Wales	4.7	4.9	5.8	6.9	6.8	6.5	7.3	7.1	7.7	8.1
Victoria	11.0	13.5	14.2	18.9	18.7	18.0	18.0	18.2	18.5	18.0
Queensland	11.1	12.1	13.2	14.6	15.5	14.4	14.3	14.3	13.8	13.2
South Australia	10.3	12.8	15.8	13.9	11.6	10.9	12.7	10.6	11.6	10.8
Western Australia	4.8	6.4	6.5	5.1	6.5	7.0	7.8	3.9	3.7	3.4
Tasmania	15.9	15.5	15.3	17.6	17.8	17.9	16.9	18.5	20.1	13.4
Northern Territory	2.2	0.8	2.2	1.8	2.2	3.3	4.3	3.4	4.7	5.2
ACT	2.8	4.4	6.3	5.4	3.1	9.1	7.4	3.5	7.9	5.3
Australia	**8.1**	**9.4**	**10.4**	**12.1**	**12.2**	**11.6**	**12.1**	**11.7**	**12.1**	**11.7**

Table B.15 Students and hours of delivery by age, publicly-funded VET sector, 2000 to 2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2000–2009
Student shares	%	%	%	%	%	%	%	%	%	%	Growth in students %
19 years and under	20.8	21.7	22.0	21.7	23.5	23.8	26.2	26.7	26.9	27.0	28.4
20 to 24 years	15.3	15.6	16.1	16.0	16.6	16.5	16.5	16.6	16.4	16.8	9.3
25 to 29 years	11.1	10.9	10.6	10.3	10.1	9.8	9.7	9.8	10.1	10.4	-6.4
30 to 39 years	19.5	19.4	19.2	18.9	18.5	18.0	17.4	17.3	17.2	17.1	-13.3
40 to 49 years	16.4	16.3	16.5	16.6	16.3	16.1	15.3	15.5	15.2	14.9	-10.0
50 to 64 years	10.7	10.3	10.6	11.3	11.0	11.4	10.8	11.2	11.4	11.1	2.8
65 years and over	1.9	1.7	1.7	1.9	1.6	1.7	1.5	1.6	1.7	1.5	-20.1
Total (per cent)a	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total (students)	**1721.4**	**1694.4**	**1695.4**	**1727.6**	**1606.4**	**1650.8**	**1676.0**	**1665.0**	**1699.7**	**1706.7**	**-0.9**
Hours of delivery	%	%	%	%	%	%	%	%	%	%	Growth in hours %
19 years and under	32.2	31.5	31.4	31.4	32.7	32.1	31.6	30.8	30.3	29.3	28.1
20 to 24 years	20.1	20.1	20.7	20.8	21.2	21.1	21.3	21.4	21.1	21.3	48.4
25 to 29 years	10.8	10.7	10.4	10.1	9.6	9.5	9.7	10.0	10.5	10.9	41.6
30 to 39 years	16.7	16.9	16.5	16.1	15.5	15.4	15.6	15.8	15.9	16.1	35.7
40 to 49 years	12.4	12.8	12.8	13.1	12.7	13.0	12.9	13.0	13.0	13.1	48.8
50 to 64 years	5.9	6.2	6.4	6.8	6.8	7.4	7.6	7.8	8.0	8.3	98.2
65 years and over	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.8	0.8	65.1
Total (per cent)a	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total (hours)	**312.3**	**341.7**	**349.0**	**356.6**	**347.1**	**362.0**	**372.1**	**390.1**	**409.2**	**438.9**	**40.5**

a Table excludes data for students whose age was not known. Data might, therefore, not add to 100.

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.16 **Students by highest prior education level, publicly-funded VET sector, 2000 to 2009**

Per cent

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Previous highest education level										
Degree or higher	4.6	4.9	5.2	5.1	5.5	5.7	5.6	6.1	6.7	7.1
Advanced diploma/diploma	2.9	3.1	3.9	3.8	4.0	4.0	4.2	4.5	4.9	5.2
Certificate IV	1.7	1.7	2.2	2.4	2.7	2.9	3.1	3.4	3.7	4.0
Certificate III	5.0	5.4	5.6	5.6	6.1	6.6	7.2	7.7	8.3	9.2
Certificate II	**na**	**na**	0.7	0.9	1.2	1.3	1.4	1.6	1.7	1.8
Certificate I	**na**	**na**	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3
Miscellaneous education	1.9	1.9	1.1	1.0	0.8	0.8	0.7	0.7	0.7	0.7
Year 12	21.5	23.1	22.6	22.5	22.6	22.2	21.5	21.9	22.3	22.4
Year 11 or lower	31.5	33.2	33.0	31.3	30.7	30.0	33.6	34.6	35.1	34.2
Not known	30.9	26.6	25.4	27.3	26.2	26.2	22.4	19.3	16.3	15.1
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total students ('000)	**1721.4**	**1694.4**	**1695.4**	**1727.6**	**1606.4**	**1650.8**	**1676.0**	**1665.0**	**1699.7**	**1706.7**

na not available

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.17 **Students by study mode, publicly-funded VET sector, 2000 to 2009**

Study mode	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Growth in students by study mode % 2000–2009
	%	%	%	%	%	%	%	%	%	%	
Part-time students	90.7	89.3	90.0	89.9	89.4	89.3	89.0	88.1	87.5	85.9	-6.1
Full-time students	8.5	9.8	10.0	10.1	10.6	10.7	11.0	11.9	12.5	14.1	64.6
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total students ('000)	**1721.4**	**1694.4**	**1695.4**	**1727.6**	**1606.4**	**1650.8**	**1676.0**	**1665.0**	**1699.7**	**1706.7**	**-0.9**

Source: NCVER various issues, *Students and Courses*, NCVER, Adelaide.

Table B.18 **Main reason for undertaking training, graduates and module completers, 2005–2009**

Per cent

Main reason for undertaking training	Graduates					Module completers				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Employment-related outcome	78.0	75.9	77.7	77.6	80.0	68.0	66.6	66.6	68.8	71.1
Further study outcome	5.0	4.9	4.7	4.5	4.1	2.0	2.3	3.0	2.2	2.1
Personal development outcome	17.0	19.2	17.7	17.8	16.0	30.0	31.2	30.4	29.0	26.8

Source: NCVER, *Student Outcomes Survey* (various issues), http://www.ncver.edu.au/statistic/21065.html#Publications (accessed 7 October 2010).

Table B.19 Students by Indigenous, disability and non-English speaking background status, publicly-funded VET sector, 2000 to 2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2000–2009
	%	%	%	%	%	%	%	%	%	%	Growth %
Indigenous status											
Indigenous	3.0	3.3	3.5	3.4	3.6	3.8	4.0	4.3	4.3	4.4	46.9
Other[a]	97.0	96.7	96.5	96.6	96.4	96.2	96.0	95.7	95.7	95.6	-2.3
Disability status											
With disability	3.6	4.1	4.9	5.3	5.7	5.9	6.1	6.1	5.9	5.9	62.8
Other[a]	96.4	95.9	95.1	94.7	94.3	94.1	93.9	93.9	94.1	94.1	-3.2
Non-English speaking background (NESB) status[b]											
Non-English	11.8	12.0	11.9	11.8	12.2	12.5	13.1	13.7	14.4	15.3	28.9
Other[a]	88.2	88.0	88.1	88.2	87.8	87.5	86.9	86.3	85.6	84.7	-4.8
Total (students '000)	**1721.4**	**1694.4**	**1695.4**	**1727.6**	**1606.4**	**1650.8**	**1676.0**	**1665.0**	**1699.7**	**1706.7**	**-0.9**

a 'Other' includes responses that are 'not known'. Caution should be taken when using these data, since the proportions of not known responses are relatively large.
b Based on country of birth.

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.20 **Students by Indigenous or disability status and level of qualification, publicly-funded VET sector, 2009**

Per cent

	Diploma or higher	Certificate IV	Certificate III	Certificate II	Certificate I	Non AQF qualification	Total enrolments
Indigenous students	4.0	7.8	26.0	26.2	15.6	20.3	100.0
Students with disability	8.9	11.0	23.7	20.0	10.8	25.7	100.0
All students	11.7	12.8	30.8	17.3	5.3	22.1	100.0

Source: NCVER, *Equity Group Student Statistics*, 2009, http://www.ncver.edu.au/statistic/publications/2268.html

Table B.21 **Enrolments by overseas students studying in Australia by provider type, 2000 to 2009**

Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2000–09
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	Growth %
Higher education[a]	72.7	86.3	115.4	134.8	150.7	162.7	169.6	174.3	181.4	203.3	179.6
Vocational education and training											
Public sector[b]	19.8	21.3	21.6	22.1	16.8	17.2	20.5	27.8	31.8	39.7	100.5
Private sector[c]	11.0	18.5	33.4	35.2	41.5	48.4	62.0	92.0	142.7	192.3	1654.7
VET sub-total[a]	30.8	39.8	53.7	56.9	58.2	65.6	82.5	119.7	174.4	232.5	655.8
School education[a]	13.1	15.1	23.2	26.9	27.3	25.1	24.5	26.8	28.3	27.5	109.5
English language intensive courses for overseas students[a]	36.8	49.4	57.3	61.9	61.6	64.3	76.5	101.5	125.8	135.1	267.6
Other[d]	na	na	24.1	26.2	26.1	26.6	26.8	27.8	31.2	33.5	
Total[a]	**153.4**	**190.6**	**273.7**	**306.8**	**323.9**	**344.2**	**380.0**	**450.1**	**541.1**	**631.9**	**312.0**

a Statistics represent student course enrolments and might be greater than the actual number of students. **b** These figures refer to the actual number of international full-fee paying students in the NCVER National VET Provider Collection who undertook training in a major AQF qualification category (Certificate I and above). **c** Students in the private sector were derived by sub-contracting students from the public sector from the VET sub-total. **d** 'Other' includes foundation, bridging and enabling courses plus other courses that do not lead to a qualification under the AQF. **na** not available

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 3 September 2010); Australian Education International (AEI) statistics, http://www.aei.dest.gov.au NCVER National VET Provider Collection (accessed 3 September 2010).

Table B.22 **Students by region, publicly-funded VET sector, 2000 to 2009[a]**

Per cent

	2002	2003	2004	2005	2006	2007	2008	2009
Major cities	54.0	54.6	54.1	54.4	54.3	53.5	53.8	53.8
Inner regional	22.6	22.7	23.3	23.0	23.1	23.2	23.5	23.1
Outer regional	14.8	14.8	15.0	15.1	15.1	15.1	14.8	14.6
Remote	2.9	2.8	2.4	2.6	2.6	2.7	2.5	2.4
Very remote	2.0	1.8	1.8	1.9	2.0	2.1	2.1	2.0
Outside Australia[b]	1.3	1.4	1.5	1.7	1.9	2.3	2.5	2.9
Not known	2.4	1.9	1.9	1.3	1.0	1.0	0.7	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total students	**1695.4**	**1727.6**	**1606.4**	**1650.8**	**1676.0**	**1665.0**	**1699.7**	**1706.7**

a Regional information is based on the Access/Remoteness Index of Australia (ARIA+). **b** Other includes students for whom information on this variable was not know.

Source: NCVER various issues, *Students and Courses*, NCVER, Adelaide.

Table B.23 **Hours of delivery by delivery type, publicly-funded VET sector, 2000 to 2009**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Growth in hours % 2002–2009
	%	%	%	%	%	%	%	%	%	%	
Delivery type											
Campus based	82.5	81.1	81.5	80.4	78.7	76.6	75.2	75.3	72.2	70.5	-14.5
Remote access	3.5	3.8	3.7	3.8	4.4	4.7	5.3	3.5	4.3	4.9	38.0
Employment based	4.8	5.7	5.9	6.9	6.6	6.6	6.8	8.9	11.2	11.5	141.8
Other[a]	6.4	6.5	5.8	5.8	7.6	9.4	9.4	8.6	7.5	7.2	11.1
Not known/not applicable	2.8	2.9	3.1	3.0	2.7	2.7	3.3	3.8	4.8	5.9	112.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total hours of delivery (million)	**312.3**	**341.7**	**349.0**	**356.6**	**347.1**	**362.0**	**372.1**	**390.1**	**409.2**	**438.9**	**40.5**

a Includes by correspondence.

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, http://www.ncver.edu.au/statistic/publications/2244.html (accessed 2 September 2010).

Table B.24 Recognition of prior experience and skills for graduates and module completers, publicly-funded VET sector, 2008 and 2009 (per cent)[a],[b]

	Graduates		Module completers	
	2008	2009	2008	2009
With prior experience and skills related to the training	**59.9**	**58.9**	**57.4**	**58.0**
Training shortened	25.6	23.4	13.2	13.4
Based on both prior study and previous experience and skills	11.3	11.4	4.9	6.6
Based on prior study only	5.4	5.0	3.2	2.6
Based on previous experience and skills only	9.0	7.0	5.1	4.2
Training not shortened	34.2	35.5	44.2	44.6
Training provider did not offer to assess prior experience and skills	18.1	18.6	27.6	28.4
Did not accept offer to have prior experience and skills assessed	7.1	7.7	7.8	7.7
Experience and skills assessed, but training not shortened	9.0	9.2	8.7	8.4
No prior experience and skills related to the training	**40.1**	**41.1**	**42.6**	**42.0**
Training provider offered to assess prior experience and skills	23.8	24.3	21.6	20.2
Training provider did not offer to assess prior experience and skills	16.4	16.8	21.0	21.8

a Students of community education providers are not included in this data. **b** Data on recognition of prior learning was first collected in the student outcomes survey in 2008.

Source: NCVER 2009, *Student Outcomes 2009*, NCVER Adelaide (table 8, p. 13).

Attachment   Estimates of total VET activity from SET

This attachment presents Commission estimates of total VET activity from the SET, run by the ABS in 2005 and 2009.

Classifications of training in SET09

The ABS most recently ran the SET in 2009 (SET09). Following the International Classification of Learning Activities (CLA), the ABS defined participation in education and training in SET09 to include:

> Formal learning [which] is structured, taught in educational institutions and organisations, as well as through the workplace, and leads to a recognised qualification.
>
> Non-formal learning [which] is structured, taught in educational institutions and organisations, as well as through the workplace, but does not lead to a recognised qualification.
>
> Informal learning [which] is unstructured, non-institutional learning activities related to work, family, community or leisure. (ABS 2009b, p. 4)

As informal learning is unstructured and not undertaken within an institutional setting, it is excluded from the Commission's consideration of VET.

Formal and non-formal learning appear to be closely aligned with the Australian Vocational Education and Training Management Information Statistical Standard concepts of accredited and unaccredited training, respectively. However, Statements of Attainment — classified as accredited training by the NCVER — are grouped with non-formal learning in SET09. Differences between the classifications from each data source are summarised in table B.25. This characteristic of SET means that it not easily compared with data on students and courses published by the NCVER.

Table B.25 **Mapping between the NCVER categories of training and SET09 categories of learning**[a]

| | NCVER categories | | Unaccredited training |
| | Accredited training | | |
	Qualifications	Statements of attainment	
SET categories			
Formal learning	✓		
Non-formal learning		✓	✓

a A tick indicates where an NCVER category of data is reported within SET09.

Can total VET activity be identified in SET09?

SET09 collected information from 23 795 individuals via personal interview. Along with rich data on their demographic and labour force characteristics, and health and disability status, detailed information was collected on these individuals' participation in formal, non-formal and informal learning. These characteristics should make SET09 an ideal source for an estimate of total VET activity. Unfortunately, however, data on learning were collected with reference to the 12 months prior to the date at which each individual was surveyed. Given that SET09 was in the field from March to June 2009, this feature rules out its use in the derivation of estimates of formal learning.

For the purposes of this study, the most logical timeframe for measurements of formal learning activity is a calendar year, because that is the basis on which most provision of this learning type is organised. Use of the data collected in SET leads to overestimates of calendar year activity. For example, someone who was enrolled in a Certificate III qualification in 2008 and moved on to study a Certificate IV in early 2009 will be recorded as having had two enrolments in formal study in the 12 months to the SET survey. Data with this characteristic will not yield an accurate estimate of calendar year 2008 formal learning.

In light of the above, total VET activity cannot be estimated reliably from SET09.

Can total VET activity be identified in SET05?

In SET05, participation in education and training was classified as:

- study leading to a qualification — formal learning
- study not leading to a qualification — non-formal learning
- work-related training courses — a combination of non-formal learning and activities that are not consistent with VET, such as conferences.

Non-formal learning estimates cannot be obtained from SET05, but data on study leading to a qualification were collected for calendar year 2004. This information, together with estimates of non-formal learning from SET09, is used below in the derivation of a rough estimate of total VET activity.

Composite SET estimates of total VET activity

Formal learning — estimates of students and enrolments from SET05

According to SET05, about 2.1 million people enrolled to study a qualification in 2004 (not including those who enrolled and were awarded a Statement of Attainment).[1] Of these, nearly 10 per cent enrolled in more than one qualification. Assuming that people with multiple enrolments began an average of 2.1 qualifications, total qualification enrolments in 2004 are estimated to have been 2.3 million.[2] Of these, 1.3 million can be classified as VET.

NCVER data on the growth in AQF qualification study by provider type and year were used to inflate this estimate to 2008 levels.[3]

On the basis of these calculations, it is estimated that about 1.3 million Australians accounted for 1.5 million enrolments in formal learning in the VET sector in 2008.[4]

Qualifications can only be delivered by RTOs. Data on the type of provider where students studied indicate that TAFEs accounted for 61 per cent of total enrolments in 2008, private providers 29 per cent and other providers (including schools and Adult Community Education (ACE) providers) accounted for the remaining 11 per cent (data not shown).[5]

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[1] This figure includes an estimated 92 000 students studying VET while still at school.

[2] The multiple of 2.1 was chosen following examination of SET09, which collects information on the number of qualifications undertaken. People who undertook more than one qualification did, on average, 2.13. Given the likelihood of a qualification over-count in SET09, a lower estimate of 2.1 was chosen for SET05 data.

[3] Application of this growth rate to SET data will be more reasonable if enrolments in full qualifications and Statements of Attainment grew at a similar rate. If enrolments in Statements of Attainment, for example, grew considerably more slowly than enrolments in full qualifications, the growth rate applied to SET qualification study will be too low.

[4] According to SET05, about 93 000 students were enrolled in VET accredited qualifications at higher education institutions in 2004. In contrast, DEEWR's higher education collection reports 7751 students studying AQF courses in that year (DEEWR 2005). It is assumed, therefore, that students at dual-sector providers were coded to higher education providers. VET level study at higher education institutions is grouped with TAFE delivery.

[5] The private provider share includes an estimated 90 024 ERTO enrolments recorded originally under other providers. This estimate was obtained from ERTOA (2009).

Non-formal learning — estimates of students and enrolments from SET09

In the 12 months to SET09, 4.1 million Australians undertook at least one non-formal learning course. Of these, 62 per cent did only one course, 82 per cent did no more than two and 95 per cent did fewer than five. In total, it is estimated that Australians commenced 7.1 million non-formal learning courses in the 12 months preceding SET09.

Some non-formal courses, however, were undertaken for non-vocational purposes, including, for example, personal enrichment. Using information on people's motivations for studying, it is estimated that about 3 million Australians enrolled in 5.6 million courses with a VET motivation.[6]

Although data on provider type are collected for non-formal learning, it is not possible to distinguish between RTO and non-RTO private providers. TAFEs are estimated to have accounted for 9 per cent of enrolments, ACE providers for 2 per cent and private providers for 49 per cent (data not shown). The remaining 40 per cent of enrolments reflected participation in internally provided work-related training. Some of this would have been delivered by the 'other' provider types.

Comparisons of SET and NCVER data

A comparison of enrolment estimates for TAFEs from SET and NCVER data was undertaken as one approach to validating the SET estimates.

In 2008, according to the NCVER data, TAFE enrolments (excluding VET-in-Schools (VETiS) delivered by schools) were an estimated 1.66 million.[7] An estimate of 1.68 million enrolments was obtained from SET. However, this includes some enrolments in VETiS delivered by schools, and some with a personal enrichment motivation. The latter were included in the comparison because NCVER student outcomes data reveal that 17 per cent of graduates and 30 per cent of module completers had a personal development motivation for studying.

Reasonably similar estimates from the two sources provide tentative support for a conclusion that SET yields reasonable estimates of total VET enrolment numbers.

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[6] VET motivations are assumed to include all study undertaken: for a work-related reason; to get into a further course of study; to obtain general educational skills; or to get skills for community or voluntary work. Courses delivered by secondary schools and higher education providers are excluded from this estimate.

[7] Data on the shares of students studying at TAFEs and other government providers in 2008 were used in deriving the estimate of TAFE enrolments in that year.

An estimate for RTOs?

Although data on training providers are collected in SET, it is not possible to distinguish between RTOs and non-RTOs.

Estimates of total VET contact hours from SET05 and SET09

Student and enrolment measures are two ways to represent total VET activity, but different courses entail different time commitments from students, and students do not necessarily complete the courses in which they enrol. Student contact hours, therefore, are a third measure of total VET activity.

The contact hours variable for qualification study in SET05 relates to hours per week. This is not a solid basis for calculating contact hours in a year. For any student, weeks studied in a year will depend on course type, full-time or part-time status and how much of a course is completed. Measures of average contact hours by qualification and provider type derived from SET09 were instead applied to SET05 data, which were then inflated to provide estimates of contact hours in 2008.

It is estimated that students spent 178.9 million contact hours engaged in formal VET learning in 2008. SET09 also contains detailed data on contact hours for non-formal learning. Using this information, it is estimated that students spent 122.8 million contact hours in non-formal VET learning in the 12 months preceding the survey.[8]

How do SET and NCVER contact hours compare?

The NCVER also reports hours data. In 2008, 408.5 million hours were delivered. This figure is significantly higher than the estimate from SET for formal and non-formal training, when it should be lower, if the two data sources measured equivalent hours concepts. This is because of the gaps around private RTO and non-RTO activity in the NCVER data. It is not clear why the measures are so different. A possible explanation is that students only report the hours that they attended in SET, rather than those they were scheduled to attend. An alternative is that the NCVER data include on-line delivery, and students do not identify this as contact hours.

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[8] Average contact hours for formal VET learning were 113, in contrast with about 23 hours for non-formal VET learning.

C   Detailed VET workforce statistics

This appendix contains detailed information on the Vocational Education and Training (VET) workforce which underpins the discussion in chapter 3. Section C.1 provides detailed data on the size of the VET workforce and its characteristics. Section C.2 contains detailed data on the career pathways of VET workers, including further information about the techniques applied in a duration analysis and more detailed results. Section C.3 outlines the key data sources used, acknowledging their deficiencies and the caveats that need to be applied to their use. Section C.4 explains the Commission's method for estimating the size of the non-TAFE workforce and total VET workforce, for which reliable data are not available.

C.1   Detailed profile of the VET workforce

The following tables support the discussion contained in sections 3.2 and 3.3 of chapter 3.

Size of the VET workforce

Table C.1   **Different estimates of the size of the VET workforce[a]**

Year	VET workforce		TAFE workforce		Source[b]
	Trainers & assessors	All VET workers	Trainers & assessors	All TAFE workers	
1997	654 800	1 220 100	45 800	69 200	NCVER estimates based on the SET[c]
2001	744 600	1 077 800	71 300	90 400	NCVER estimates based on the SET[c]
2001	24 500	na	17 400	39 000	NCVER estimates based on Census[d]
2002	na	na	42 300	62 500	NCVER estimates based on administrative data[d]
2005	677 700	950 800	61 800	70 800	NCVER estimates based on the SET[b]
2006	62 900	130 600	20 200	42 900	Productivity Commission estimates based on Census[e]
2006	26 900	na	19 300	na	NCVER estimates based on Census[c]
2008	na	na	36 460	57 800	NCVER estimates based on administrative data[c]
2008–10	na	na	na	73 400	Productivity Commission estimates based on TAFE administrative data[f]

a In some data collections, 'trainers and assessors' were labelled as 'practitioners' or 'teachers', and 'other VET professionals' and 'general staff' were labelled as 'non-teaching staff'. **b** Estimates based on the Census or the Survey of Education and Training (SET) are taken at a point-in-time and exclude multiple-job holders who do not classify VET as their main job. Estimates based on administrative data are a total count of workers employed at any time in the year and include multiple-job holders. **c** Published in Mlotkowski and Guthrie (2008). **d** Published in NCVER (2004a). **e** Based on unpublished ABS (2006d) data. **f** Data for the Northern Territory are for 2008, based on Nechvoglod et al. (2008). Data for South Australia are for 2008-09. Data for all other jurisdictions are for 2009-10 (table C.2). **na** Not available.

Source: Mlotkowski and Guthrie (2008); Nechvoglod et al. (2008); NCVER (2004a); Productivity Commission estimates based on unpublished ABS (2006d) data, and unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Table C.2 contains an estimate of the TAFE workforce in each jurisdiction, and by job category. Data were obtained from TAFE administrative systems, and the way they were reported varied across jurisdictions, making headcount comparisons difficult across jurisdictions. For example, the reported New South Wales and Victorian headcounts are similar, but New South Wales provided unique identifiers for each person employed. Victorian data (and data for some other jurisdictions) was not collected for individual persons. In Victoria, the reported headcount is biased upwards because some casual teachers might work in more than one TAFE institute and therefore be represented more than once in the database. Thus it is likely that Victoria has a lower headcount than New South Wales. Comparisons are also difficult because of other reasons (see note a in table C.2).

Table C.2 Headcount of TAFE workforce by job category and jurisdiction[a]

Number of workers[b]

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	All
Trainers and assessors	16 510	14 930	3 030	3 460	4 750	1 130	–	1 090	44 900
Other VET professionals	540	140	10	20	30	10	–	10	800
General staff	6 200	8 230	4 970	1 920	3 250	830	–	490	25 900
All TAFE workers	23 200	23 300	8 200	5 400	8 000	2 000	1 600	1 600	73 400

a Data are not comparable across jurisdictions. Data are for 2009-10 except for South Australia (2008-09), Tasmania (June quarter 2010) and the Northern Territory (2008). Furthermore, some jurisdictions provided data with unique identifiers for each person but others did not. Jurisdictions without unique identifiers might include persons employed in more than one position (for different institutes). Except for the Northern Territory, the headcount includes all persons employed during the reporting period, including people who separated from their job (separation rates can vary across jurisdictions) and will overestimate the number of workers employed at a point in time. **b** For confidentiality, numbers are rounded to the nearest 10 workers for job category (or 100 workers for all TAFE workers) and total may not add due to rounding. – unknown.

Source: Productivity Commission estimates based on unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory) and Nechvoglod et al. (2008).

Table C.3 Share of the VET workforce by job category

Per cent of workers in TAFE and non-TAFE

	TAFE[a]	Non-TAFE[b]
Trainers and assessors	62.7	48.0
Other VET professionals	1.1	4.1
General staff	36.1	47.9
All VET workers	100.0	100.0

a Data for the TAFE sector are based on unpublished TAFE administrative data supplied by jurisdictions and does not include the Northern Territory. Data were for all persons employed during 2009-2010 except for South Australia (2008-09) and Tasmania (June quarter 2010). **b** Data for the non-TAFE sector are based on Census data for 2006 and exclude multiple-job holders who do not classify VET as their main job. In some instances, other VET professionals and general staff are difficult to identify in data collections because VET is only one component of their respective industry's output. Therefore, for some industries which comprise the non-TAFE sector, the number of these workers has been imputed.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data and unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory).

VET workforce by region

Table C.4   VET workforce by state/territory[a]
Per cent of workers

	TAFE[b]	Non-TAFE[c]
Trainers and assessors		
New South Wales	35.9	34.6
Victoria	31.2	24.1
Queensland	12.3	18.1
South Australia	6.9	7.3
Western Australia	9.0	9.9
Tasmania	1.8	2.0
ACT	1.7	2.8
Northern Territory	1.1	1.1
Other VET professionals		
New South Wales	63.4	49.4
Victoria	0.0	18.0
Queensland	2.8	13.6
South Australia	11.3	7.2
Western Australia	4.2	6.9
Tasmania	11.3	0.8
ACT	4.2	3.5
Northern Territory	1.4	0.7
General staff		
New South Wales	27.6	40.3
Victoria	26.5	19.0
Queensland	20.1	21.0
South Australia	7.0	8.7
Western Australia	11.5	6.2
Tasmania	2.5	1.1
ACT	1.6	2.6
Northern Territory	3.2	0.9
All VET workers		
New South Wales	33.8	36.1
Victoria	28.9	23.0
Queensland	14.8	18.4
South Australia	7.1	7.6
Western Australia	9.8	9.2
Tasmania	2.3	1.8
ACT	1.7	2.8
Northern Territory	1.8	1.1

a State/territory of worker's usual place of residence. Shares sum to 100 per cent nationally. **b** Data for the TAFE sector are for 2008. **c** Data for the non-TAFE sector are for 2006 and exclude multiple-job holders who do not classify VET as their main job.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data and Nechvoglod et al. (2008).

Table C.5 VET workforce by region, 2006[a]

Per cent of workers

	TAFE[b]	Non-TAFE[b]
Trainers and assessors		
Major cities	66.5	75.0
Inner regional	23.3	17.0
Outer regional	8.8	6.3
Remote or very remote	1.4	1.7
Other VET professionals		
Major cities	73.4	77.8
Inner regional	17.4	15.7
Outer regional	7.5	5.3
Remote or very remote	1.7	1.2
General staff		
Major cities	70.1	77.6
Inner regional	19.7	14.9
Outer regional	8.3	5.3
Remote or very remote	1.8	2.3
All VET workers		
Major cities	68.7	75.5
Inner regional	21.2	16.6
Outer regional	8.5	6.1
Remote or very remote	1.6	1.8

a Region defined by ASGC (ABS 2005). Excludes migratory workers. **b** Data exclude multiple-job holders who do not classify VET as their main job.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data.

Table C.6 TAFE workforce by remoteness and jurisdiction, 2010

Per cent of workforce who work in a major city[a]

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
Trainers and assessors	64.8	74.7	43.4	**na**	69.6	**na**	**na**	100.0
Other VET professionals	61.9	70.0	50.0	**na**	80.0	**na**	**na**	100.0
General staff	64.9	66.8	40.3	**na**	63.8	**na**	**na**	100.0
All TAFE workers	64.7	71.9	41.7	**na**	67.3	**na**	**na**	100.0

a Major cities were defined using the ABS's classification of major cities by postcodes. Data are for all persons employed during the year 2009-10. **na** Data not available.

Source: Productivity Commission estimates based on TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Labour force characteristics of the VET workforce

Table C.7 VET workforce by labour force status and hours worked[a]

Per cent of workers (unless otherwise stated)

	TAFE[b]	Non-TAFE[c]
Trainers and assessors		
Full-time	35.6	67.4
Part-time	11.6	32.6
Other[d]	52.8	..
Average hours	**na**	35.2 hrs
Other VET professionals		
Full-time	98.1	76.5
Part-time	1.9	23.5
Average hours	na	39.3 hrs
General staff		
Full-time	51.5	70.8
Part-time	19.5	29.2
Other[d]	29.0	..
Average hours	**na**	35.3 hrs
All VET workers		
Full-time	42.1	68.4
Part-time	14.4	31.6
Other[d]	43.5	..
Average hours	**na**	35.4 hrs

a For the non-TAFE sector, full-time is defined as 35 or more hours of paid work per week, part-time is defined as 34 or fewer hours of paid work per week and workers who do not report labour force status are omitted. In the TAFE sector, full-time and part-time status is listed in administrative databases. Some of these full-time employees may work less than 35 hours. **b** Data for the TAFE sector are for 2010. **c** Data for the non-TAFE sector are for 2006 and exclude multiple-job holders who do not classify VET as their main job. **d** Includes workers (casuals and some sessionals) not listed as working on a full-time or part-time basis. Almost all of these persons work part-time hours (less than 35 per week), but some reported the equivalent of working full-time hours. **na** Data not available. .. Not applicable.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data and TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Table C.8 shows the headcount of the TAFE workforce according to labour force status. Unadjusted headcount numbers can misrepresent the share of work effort for each employment type, as hours worked can vary according to labour force status (table C.9). Therefore, a full-time equivalent share of the workforce is also presented (table C.10). The full-time equivalent hours worked by non-permanent teachers was equated differently across jurisdictions so comparisons are difficult.

Table C.8 Headcount of TAFE workforce by labour force status and jurisdiction, 2010[a]

Per cent of workers

	NSW	Vic	Qld	SA	WA	Tas	ACT	All[b]
Trainers and assessors								
Full-time	31.5	31.3	78.7	28.9	37.1	56.7	29.2	35.6
Part-time	1.2	14.7	21.3	31.2	13.3	30.3	10.8	11.6
Casual[c]	67.3	53.9	0.0	39.9	49.6	2.6	60.1	52.8
Sessional	0.0	0.0	0.0	0.0	0.0	10.5	0.0	–
Other VET professionals								
Full-time	97.6	100.0	100.0	90.0	100.0	100.0	100.0	98.1
Part-time	2.4	0.0	0.0	10.0	0.0	0.0	0.0	1.9
General staff								
Full-time	50.9	45.9	61.0	43.2	52.7	58.5	71.3	51.5
Part-time	19.0	17.2	13.1	47.4	16.5	37.9	10.9	19.5
Casual	30.1	37.0	25.9	9.4	30.9	3.6	17.7	29.0
All TAFE workers								
Full-time	38.2	36.9	67.7	34.2	43.7	57.7	42.4	42.1
Part-time	5.9	15.5	16.5	36.9	14.5	33.4	10.8	14.4
Casual	55.9	47.6	15.8	28.9	41.8	3.0	46.8	43.5
Sessional	0.0	0.0	0.0	0.0	0.0	6.0	0.0	–

a Data are for all persons employed during the year 2009-10 except for South Australia (2008-09) and Tasmania (June quarter 2010). Comparisons should be made with caution. The composition of the workforce in South Australia is likely to be different in 2010. Also the work arrangements of each labour force state can vary across jurisdictions. The majority of people employed on a casual basis (and sessionals in Tasmania) work part-time hours. Totals may not add due to rounding. **b** Does not include the Northern Territory and casuals include sessional workers from Tasmania. **c** Casual includes Hourly Paid Instructors in South Australia. – Not calculated. Sessional workers (from Tasmania) were included with casual workers.

Source: Productivity Commission estimates based on unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Table C.9 Average hours of work per week in TAFE workforce by labour force status and jurisdiction, 2010[a]

	NSW	Vic	Qld	SA	WA	Tas	ACT
Trainers and assessors							
Full-time	31.4	35.7	31.4	34.9	35.4	33.9	34.3
Part-time	20.2	23.7	19.6	18.3	23.2	18.6	22.1
Casual[b]	16.7	9.6	–	6.8	11.8	6.7	7.8
Sessional	–	–	–	–	–	7.4	–
TOTAL Trainers and assessors	21.3	19.9	28.9	18.5	22.0	25.9	17.0
Other VET professionals							
Full-time	34.4	36.4	37.3	33.8	36.2	36.8	35.5
Part-time	18.9	–	–	–	–	–	–
TOTAL Other VET professionals	34.0	36.4	37.3	33.8	36.2	36.8	35.5
General staff							
Full-time	34.1	36.1	36.5	33.5	35.0	35.1	34.1
Part-time	19.3	24.0	22.7	23.8	22.8	19.1	21.3
Casual	5.0	7.2	10.1	6.3	10.6	6.3	3.5
TOTAL General staff	22.6	23.4	27.8	26.4	23.1	28.0	27.4
All TAFE workers							
Full-time	32.6	35.9	34.2	34.3	35.2	34.4	34.2
Part-time	19.4	23.8	21.1	20.8	22.8	19.0	21.9
Casual[b]	15.0	8.9	10.1	6.8	10.6	6.5	7.3
Sessional	–	–	–	–	–	7.4	–
TOTAL TAFE workers	22.0	21.3	28.3	21.4	23.1	26.8	20.3

a Data are for all persons employed during the year 2009-10 except for South Australia (2008-09) and Tasmania (June quarter 2010). Reported number of hours worked for full-time workers might be less than those stated in award agreements because people may have taken paid leave (reducing their hours worked) during the reporting period. Hours were adjusted to yearly equivalents for people who separated or commenced employment during the period. The vast majority of casual (and sessional workers in Tasmania) work part-time hours (<35 per week) but some casuals work full-time hours. **b** Casual teaching hours were adjusted to reflect full-time equivalent (FTE) hours worked. They are not comparable across jurisdictions because loadings used to estimate FTE hours for casual teachers differ across jurisdictions. Hours of other teachers (and job categories) were not adjusted. Casuals include Hourly Paid Instructors for South Australia. – not applicable (nil or too few observations).

Source: Productivity Commission estimates based on unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Table C.10 **Full-time equivalent share of TAFE workforce by labour force status and jurisdiction, 2010[a]**

Share of employment by hours worked

	NSW	Vic	Qld	SA	WA	Tas	ACT
Trainers and assessors[b]							
Full-time	47.2	58.7	85.5	54.6	59.5	74.5	59.0
Part-time	1.1	15.8	14.5	30.7	14.1	21.9	14.1
Casual[c]	51.7	25.5	0.0	14.7	26.4	0.7	27.0
Sessional	0.0	0.0	0.0	0.0	0.0	3.0	0.0
TOTAL Trainers and assessors	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Other VET professionals							
Full-time	98.7	100.0	100.0	98.5	100.0	100.0	100.0
Part-time	1.3	0.0	0.0	1.5	0.0	0.0	0.0
TOTAL Other VET profs	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General staff							
Full-time	77.4	75.6	79.9	56.0	75.0	73.3	89.2
Part-time	16.0	15.7	10.7	41.8	15.0	25.9	8.6
Casual	6.6	8.7	9.4	2.2	10.0	0.8	2.2
TOTAL General staff	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All TAFE workers[b]							
Full-time	56.8	65.6	82.1	55.4	66.4	74.1	71.8
Part-time	5.0	15.6	12.1	35.5	14.4	23.5	11.7
Casual	38.2	18.8	5.7	9.0	19.2	0.7	16.5
Sessional	0.0	0.0	0.0	0.0	0.0	1.7	0.0
TOTAL TAFE workers	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a Data are for all persons employed during the year 2009-10 except for South Australia (2008-09) and Tasmania (June quarter 2010). The composition of the South Australian workforce is likely to have changed in 2010. Totals may not add due to rounding. **b** Loadings used to estimate full-time equivalents (FTEs) for casual teachers varied across jurisdictions. Some jurisdictions provided FTEs for each worker. For other jurisdictions, different FTE loadings were used for casual teachers (table C.9). Given the different methods used to compute these FTE estimates, comparisons across jurisdictions should be made with caution. **c** Casual includes Hourly Paid Instructors in South Australia.

Source: Productivity Commission estimates based on unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Table C.11 shows the headcount of TAFE workforce by ongoing (permanent) and non-permanent forms of employment. Table C.12 adjusts for hours worked and more accurately measures shares of employment by work effort. Comparisons across jurisdictions are difficult because, for each form of employment, work arrangements can sometimes vary across jurisdictions.

Table C.11 **Headcount of TAFE workforce by form of employment and jurisdiction, 2010[a]**

Per cent of workers

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	All[b]
Trainers and assessors									
Permanent/ongoing	29.0	30.1	70.5	44.3	36.7	69.6	38.7	26.9	35.1
Non-permanent	71.0	69.9	29.5	55.7	63.3	30.4	61.3	73.1	64.9
Fixed-term	*3.7*	*16.0*	*29.5*	*15.8*	*13.7*	*17.4*	**na**	*13.1*	*12.1*
Casual[c]	*67.3*	*53.9*	*0.0*	*39.9*	*49.6*	*2.6*	**na**	*60.1*	*52.8*
Sessional	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*10.5*	**na**	*0.0*	*–*
Other VET professionals									
Permanent/ongoing	90.5	0.0	0.0	80.0	5.7	100.0	20.0	0.0	67.1
Non-permanent	9.5	100.0	100.0	20.0	94.3	0.0	80.0	100.0	32.9
Fixed-term	*9.5*	*100.0*	*100.0*	*20.0*	*94.3*	*0.0*	**na**	*100.0*	*32.9*
General staff									
Permanent/ongoing	49.0	44.0	55.1	78.7	54.2	80.1	59.0	60.8	52.7
Non-permanent	51.0	56.0	44.9	21.3	45.8	19.9	41.0	39.2	47.3
Fixed-term	*20.9*	*19.0*	*19.0*	*11.9*	*15.4*	*16.2*	**na**	*21.4*	*18.4*
Casual	*30.1*	*37.0*	*25.9*	*9.4*	*30.5*	*3.6*	**na**	*17.7*	*28.9*
All TAFE workers									
Permanent/ongoing	35.8	34.8	60.8	56.6	43.6	74.2	50.7	37.1	41.8
Non-permanent	64.2	65.2	39.2	43.4	56.4	25.8	49.3	62.9	58.2
Fixed-term	*8.4*	*17.6*	*23.1*	*14.5*	*14.7*	*16.8*	**na**	*16.0*	*14.7*
Casual	*55.9*	*47.6*	*16.1*	*28.9*	*41.6*	*3.0*	**na**	*46.8*	*43.5*
Sessional	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*6.0*	**na**	*0.0*	*–*

a Data are for all persons employed during the year (except for the Northern Territory) and are for 2009-10 for all jurisdictions except South Australia (2008-09), Tasmania (June quarter 2010) and the Northern Territory (2008). Comparisons should be made with caution. The composition of the workforce in South Australia is likely to have changed since 2009 and the actual work arrangements (hours worked and entitlements) for various forms on non-permanent employment can vary across jurisdictions. Totals may not add due to rounding. **b** Does not include the Northern Territory and casual includes sessional workers in Tasmania. **c** Casual includes Hourly Paid Instructors in South Australia. **na** Data not available. – Not calculated. Sessional workers (from Tasmania) were included with casual workers.

Source: Productivity Commission estimates based on unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory) and Nechvoglod et al. (2008).

Table C.12 Full-time equivalent share of TAFE workforce by form of employment and jurisdiction, 2010[a]

Share of employment by hours worked

	NSW	Vic	Qld	SA	WA	Tas	ACT
Trainers and assessors[b]							
Permanent/ongoing	43.3	55.4	72.3	60.7	56.6	81.2	53.0
Non-permanent	56.7	44.6	27.7	39.3	43.4	18.8	47.0
Fixed-Term	5.0	19.2	27.7	24.6	16.9	15.2	20.0
Casual[c]	51.7	25.4	0.0	14.7	26.4	0.7	27.0
Sessional	0.0	0.0	0.0	0.0	0.0	3.0	0.0
TOTAL Trainers and assessors	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Other VET professionals							
Permanent/ongoing	91.8	0.0	100.0	80.2	5.5	100.0	0.0
Fixed-Term	8.2	100.0	0.0	19.8	94.5	0.0	100.0
TOTAL Other VET profs	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General staff							
Permanent/ongoing	72.4	71.9	68.3	85.4	72.4	86.7	75.6
Non-permanent	27.6	28.1	31.7	14.6	27.6	13.3	24.4
Fixed-Term	21.3	19.4	22.3	12.4	17.6	12.5	22.1
Casual	6.4	8.8	9.4	2.2	10.0	0.8	2.2
TOTAL General staff	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All TAFE workers[b]							
Permanent/ongoing	52.7	61.1	69.7	71.7	63.1	83.7	63.5
Non-permanent	47.3	38.9	24.6	28.3	36.9	16.3	36.5
Fixed-Term	9.4	20.1	5.7	19.2	17.7	13.9	21.1
Casual	37.9	18.8	0.0	9.1	19.2	0.7	16.5
Sessional	0.0	0.0	0.0	0.0	0.0	1.7	0.0
TOTAL TAFE workers	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a Data are for all persons employed during the year 2009-10 except for South Australia (2008-09) and Tasmania (June quarter 2010). The composition of the South Australian workforce is likely to have changed in 2010. Totals may not add due to rounding. **b** Loadings used to estimate full-time equivalents (FTEs) for casual teachers varied across jurisdictions. Some jurisdictions provided FTEs for each worker. For other jurisdictions, different FTE loadings were used for casual teachers (table C.9). Given the different methods used to compute these FTE estimates, comparisons across jurisdictions should be made with caution. **c** Casual includes Hourly Paid Instructors in South Australia.

Source: Productivity Commission estimates based on unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Table C.13 VET workforce multiple-job holding, 2010
Per cent of workers

	TAFE[a]	Non-TAFE[a]
Trainers and assessors		
Single job-holder	74.9	71.1
Multiple-job holder	25.1	28.9
Other VET professionals		
Single job-holder	88.0	84.4
Multiple-job holder	12.0	15.6
General staff		
Single job-holder	90.6	92.7
Multiple-job holder	9.4	7.3
All VET workers		
Single job-holder	81.8	79.7
Multiple-job holder	18.2	20.3

a Based on sample of 2985 respondents. The data under-estimates the share of VET workers who are multiple-job holders because casual employees (who are more likely to be multiple-job holders than permanent or ongoing staff) are under-represented in the survey sample.

Source: Productivity Commission estimates based on unpublished DEEWR (2010i) data.

Income

Table C.14 VET workforce by weekly income, 2006
Average gross weekly wage ($)[a]

	TAFE[b]	Non-TAFE[b]
Trainers and assessors		
Full-time	1 180	1 150
Part-time	806	668
Other VET professionals		
Full-time	1 454	1 344
Part-time	732	770
General staff		
Full-time	956	925
Part-time	560	567
All VET workers		
Full-time	1 114	1 122
Part-time	730	657

a Income is estimated based on midpoints of aggregated income brackets. Full-time employment is defined as 35 or more hours of paid work per week. Part-time is defined as 34 or fewer hours of paid work per week. Omits workers who do not report hours worked. **b** Data exclude multiple-job holders who do not classify VET as their main job.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data.

Table C.15 contains estimates of annual wages for full-time and part-time workers, and hourly wage rates for casuals. For comparison with casual workers, annual wages have been converted to an hourly rate.[1] However, casual workers often receive higher hourly rates than full-time or part-time employees because they do not receive other entitlements (for example, superannuation or paid leave).

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[1] Hourly rates were calculated by dividing the annual wage by hours worked per year for a full-time employee according to hours worked as per each jurisdiction's respective award agreement.

Table C.15 TAFE workforce by incomes and jurisdiction, 2010[a]

Average annual and hourly wage ($)[b]

	NSW	Vic	Qld	SA	WA	Tas	ACT
Trainers and assessors							
Full-time							
Annual wage	85 809	70 123	**na**	67 987	74 269	76 780	79 558
Hourly wage	47.15	35.49	41.66	37.40	38.20	42.03	41.63
Part-time							
Annual wage	80 175	66 792	**na**	65 482	69 929	69 407	75 546
Hourly wage	68.14[d]	33.80	39.55	35.98	35.92	37.99	39.53
Casual (hourly wage)	**na**	57.50	–	50.66	40.71	63.40	75.32
Sessional (hourly wage)	–	–	–	–	–	56.02	–
ALL trainers and assessors (hourly wage)	**na**	47.07	41.21	42.23	39.14	42.82	61.63
Other VET professionals							
Full-time							
Annual wage	113 121	139 738[c]	**na**	131 117	142 712	120 247	197 852
Hourly wage	62.15	70.72	63.96	64.75	73.19	62.68	103.53
Part-time							
Annual wage	89 950	–	–	–	81 597	–	–
Hourly wage	49.42	–	–	–	41.84	–	–
ALL other VET professionals (hourly wage)	61.84	70.72	63.96	64.68	73.19	62.68	103.53
General staff							
Full-time							
Annual wage	58 692	55 697	**na**	52 359	66 388	56 404	61 169
Hourly wage	32.25	28.19	29.94	28.77	34.07	29.26	32.01
Part-time							
Annual wage	50 888	48 449	**na**	47 990	51 763	48 345	57 215
Hourly wage	27.96	24.52	26.06	26.37	26.70	25.12	29.94
Casual (hourly wage)	**na**	27.57	61.09	24.30	21.74	25.53	23.66
ALL general staff (hourly wage)	31.09	27.33	37.51	27.21	29.04	27.55	30.30
All TAFE workers							
Full-time							
Annual wage	77 782	65 382	**na**	61 592	71 114	68 393	71 322
Hourly wage	42.74	33.09	35.07	33.84	36.56	36.72	37.32
Part-time							
Annual wage	55 278	59 615	**na**	56 001	61 609	59 284	69 865
Hourly wage	30.37	30.17	32.67	30.77	31.68	31.81	36.56
Casual (Hourly wage)	**na**	49.47	61.23	47.61	35.05	44.14	69.34
ALL TAFE workers (hourly wage)	**na**	40.41	39.80	36.69	35.21	36.46	52.24

a Data are for all persons employed during 2009-10 except for South Australia (2008-09) and Tasmania (June quarter 2010). Estimated wages in South Australia (for 2009) are likely to be lower than those paid in 2010 and should not be compared with other jurisdictions. Data for Victoria were estimated from income wage brackets (not actual reported salaries) and could be biased. Data for the Northern Territory were unavailable.
b Full time and part time workers receive other (non-wage) benefits, including superannuation and paid leave.
c Wages of other VET professionals in Victoria are for total remuneration package (this includes motor vehicle allowances and superannuation). **d** Estimate of the hourly part-time wage for NSW teachers is taken from the award agreement in 2010 and not from the database used to estimate other hourly wage rates. **na** Data not available. – not applicable (too few or nil observations).

Source: Productivity Commission estimates based on unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Qualifications

Table C.16 **VET trainers and assessors, by level of highest qualification**

Per cent of workers[a]

	TAFE[b]	Non-TAFE[c]
Postgraduate		
Doctoral Degree	na	1.1
Master Degree[d]	na	8.0
Graduate Diploma	na	6.3
Graduate Certificate[e]	na	1.4
All Postgraduate level	25.9	16.8
Undergraduate or diploma		
Bachelor Degree	na	27.6
Advanced Diploma[f]	na	8.3
Diploma or Associate Degree	na	8.1
All Undergraduate or Diploma level	42.4	44.0
Certificate		
Certificate III / IV	na	19.1
Certificate I / II[g]	na	2.6
All Certificate level	31.2	21.7
No post-school qualification	**0.6**	**17.5**

[a] Percentages omit workers for whom observations are missing, unknown or inadequately described. [b] Data for the TAFE sector are for 2008. The majority of states supplied incomplete data. South Australia and Western Australia did not supply data. [c] Data for the non-TAFE sector are for 2006 and exclude multiple-job holders who do not classify VET as their main job. [d] Includes postgraduate level not defined. [e] Includes Graduate Diploma or Graduate Certificate level not defined. [f] Includes Diploma or Advanced Diploma level not defined. [g] Includes Certificate level not defined. **na** Data not available.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data and Nechvoglod et al. (2008).

Table C.17 VET trainers and assessors, by field of highest qualification, 2006

Per cent of workers

	TAFE[a]	*Non-TAFE*[a]
Education	47.0	21.2
Management and commerce	9.6	15.9
Society and culture	8.6	9.6
Health	3.3	10.1
Engineering and related technologies	7.0	6.7
Creative arts	4.7	3.6
Information technology	2.6	2.5
Natural and physical sciences	2.9	2.3
Architecture and building	2.9	1.2
Agriculture, environmental and related studies	2.0	1.3
Food, hospitality and personal services	3.3	2.6
Mixed fields or not described or stated	3.7	6.2
No post-school qualification	2.3	16.8

a Data exclude multiple-job holders who do not classify VET as their main job.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data.

Demographic characteristics of the VET workforce

Table C.18 **VET workforce by age**
Per cent of workers (unless otherwise stated)

	TAFE[a]	*Non-TAFE*[b]
Trainers and assessors		
<30 years	3.5	14.6
30–39 years	17.3	26.4
40–49 years	31.6	28.7
50–59 years	34.5	22.8
60+ years	13.1	7.5
Average age	48.1 yrs	43.7 yrs
Other VET professionals		
<30 years	0.9	10.6
30–39 years	8.0	18.9
40–49 years	29.5	30.1
50–59 years	51.8	33.0
60+ years	9.8	7.3
Average age	50.3 yrs	45.3 yrs
General staff		
<30 years	14.8	32.9
30–39 years	19.9	19.7
40–49 years	27.5	21.9
50–59 years	28.5	19.4
60+ years	9.3	6.1
Average age	44.0 yrs	38.3 yrs
All VET workers		
<30 years	7.4	17.4
30–39 years	18.0	25.0
40–49 years	30.1	27.6
50–59 years	32.8	22.7
60+ years	11.7	7.3
Average age	46.8 yrs	42.1 yrs

a Data for the TAFE sector are for 2008. **b** Data for the non-TAFE sector are for 2006 and exclude multiple-job holders who do not classify VET as their main job.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data and Nechvoglod et al. (2008).

Table C.19 **TAFE workforce by age and jurisdiction, 2010[a]**

Per cent of workers (unless otherwise stated)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	All[b]
Trainers and assessors									
15-24 years	0.5	1.0	0.2	1.3	1.2	0.7	na	0.9	0.8
25-34 years	8.1	10.7	6.4	11.4	10.9	7.4	na	14.5	9.6
35-44 years	22.9	26.3	21.7	23.2	23.1	23.7	na	25.0	24.1
45-54 years	34.3	34.0	37.7	32.6	32.1	36.5	na	30.5	34.0
55-64 years	28.6	24.4	30.7	27.4	26.3	29.0	na	23.8	26.9
65+ years	5.7	3.7	3.3	4.1	6.4	2.8	na	5.3	4.7
Average age (years)	49.9	48.5	50.2	48.5	49.1	49.2	na	47.6	49.2
Other VET professionals									
15-24 years	0.2	0.0	7.1	–	0.0	0.0	na	0.0	0.2
25-34 years	4.5	1.0	21.4	–	0.0	0.0	na	0.0	3.6
35-44 years	13.6	14.1	0.0	5.0	11.4	22.2	na	14.3	13.3
45-54 years	39.7	37.7	42.9	40.0	34.3	66.7	na	28.6	39.4
55-64 years	39.6	44.0	28.6	45.0	51.4	11.1	na	57.1	40.8
65+ years	2.4	3.1	0.0	10.0	2.9	0.0	na	0.0	2.7
Average age (years)	52.0	53.7	47.2	56.0	53.9	49.3	na	53.1	52.4
General staff									
15-24 years	4.3	13.1	5.4	6.7	10.9	3.5	na	17.5	8.6
25-34 years	11.1	22.1	15.3	20.7	14.5	14.6	na	19.0	16.8
35-44 years	20.6	22.4	23.1	20.8	22.9	20.0	na	22.3	21.9
45-54 years	30.8	23.9	31.2	30.2	27.3	35.9	na	23.9	28.2
55-64 years	25.9	16.3	21.9	19.3	20.6	23.7	na	15.1	20.6
65+ years	7.3	2.2	3.1	2.3	3.8	2.4	na	2.3	3.8
Average age (years)	48.6	41.9	45.8	44.1	44.4	46.8	na	40.9	44.9
All TAFE workers									
15-24 years	1.5	5.2	3.6	3.2	5.1	1.9	na	6.0	3.6
25-34 years	8.8	14.6	12.0	14.7	12.3	10.4	na	15.8	12.1
35-44 years	22.0	24.8	22.7	22.2	23.0	22.1	na	24.1	23.2
45-54 years	33.5	30.4	33.5	31.8	30.2	36.3	na	28.5	31.9
55-64 years	28.1	21.7	25.0	24.6	24.1	26.7	na	21.2	24.8
65+ years	6.0	3.2	3.2	3.5	5.3	2.6	na	4.4	4.4
Average age (years)	49.6	46.3	47.4	46.9	47.2	48.2	43.7	45.6	47.6

a Data are for all persons employed during the year 2009-10 except for South Australia (2008-09) and Tasmania (June quarter 2010). The age composition of the SA workforce may have changed in 2010. **b** Data does not include the Northern Territory but given the relatively small size of its workforce compared with the total TAFE workorce in Australia, this is unlikely to affect the result. **na** Data not available.

Source: Productivity Commission estimates based on unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Table C.20 **VET workforce by gender**

Per cent of female workers

	TAFE[a]	Non-TAFE[b]
Trainers and assessors	52.2	58.5
Other VET professionals	54.4	51.2
General staff	68.1	56.2
All VET workers	58.0	57.8

a Data for the TAFE sector do not include the Northern Territory and are for 2009-10 (except for South Australian data used, which was for 2008-09). **b** Data for the non-TAFE sector are for 2006 and exclude multiple-job holders who do not classify VET as their main job.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data and unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Table C.21 **TAFE workforce by gender and jurisdictions, 2010[a]**

Per cent of female workers

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	All[b]
Trainers and assessors	54.4	50.5	47.9	51.2	52.7	51.1	**na**	56.1	52.2
Other VET professionals	60.1	42.4	64.3	45.0	44.1	33.3	**na**	42.9	54.4
General staff	67.4	66.8	67.6	74.3	69.2	67.1	**na**	72.4	68.1
All TAFE workers	58.0	56.2	60.0	59.4	59.4	57.8	60.6	61.0	58.0

a Data are for 2009-10 except South Australia (2008-09) and the Northern Territory (2008). **b** Does not include the Northern Territory, but given the relatively small size of its workforce this is unlikely to affect the result for all of Australia. **na** Data not available.

Source: Productivity Commission estimates based on unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Table C.22 **VET workforce by Indigenous status, 2006**

Per cent of workers of Indigenous status[a]

	TAFE[b]	Non-TAFE[b]
Trainers and assessors	1.3	1.3
Other VET professionals	3.0	1.5
General staff	1.9	2.1
All VET workers	1.7	1.7

a Indigenous refers to Aboriginal or Torres Strait Islander or both. Excludes workers who do not report their Indigenous status. **b** Data exclude multiple-job holders who do not classify VET as their main job.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data.

Table C.23 **TAFE workforce by Indigenous status and jurisdiction[a]**

Per cent of workers

	NSW	Vic	Qld	SA	WA	Tas	ACT	NT
Trainers and assessors	1.1	**na**	1.4	0.5	1.5	**na**	2.9	10.6
Other VET professionals	**na**	**na**	0.0	5.0	0.0	**na**	0.0	**na**
General staff	1.2[b]	**na**	1.7	1.6	4.1	**na**	2.3	7.7[b]
All TAFE workers	1.1	**na**	1.6	0.9	2.6	**na**	2.7	8.8

a Queensland, Western Australia and the ACT data are for 2009-10, South Australia data are for 2008-09 and New South Wales and Northern Territory data are for 2008. **b** Includes other VET professionals. **na** Data not available.

Source: Productivity Commission estimates based on unpublished TAFE administrative data supplied by jurisdictions (except the Northern Territory) and Nechvoglod et al. (2008).

Table C.24 **VET workforce by disability status, 2006**

Per cent of workers who report needing assistance with core activities

	TAFE[a]	Non-TAFE[a]
Trainers and assessors	0.7	0.7
Other VET professionals	1.0	0.7
General staff	0.7	0.7
All VET workers	0.7	0.7

a Data exclude multiple-job holders who do not classify VET as their main job.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data.

Table C.25 **TAFE workforce by disability status and jurisdiction[a]**

Per cent of workers with disability

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
Trainers and assessors	2.0	**na**	6.9	1.1	0.8	**na**	2.8	2.6
Other VET professionals	**na**	**na**	7.1	**na**	2.9	**na**	**na**	20.0
General staff	2.7[b]	**na**	6.0	2.1[b]	1.4	**na**	1.7[b]	1.1
All TAFE workers	2.2	**na**	6.3	1.5	1.0	**na**	2.1	2.3

a Queensland, Western Australia and the ACT data are for 2009-10, and New South Wales, South Australia and Northern Territory data are for 2008. **b** Includes other VET professionals. **na** Data not available.

Source: Productivity Commission estimates based on TAFE administrative data supplied by jurisdictions (except the Northern Territory) and Nechvoglod et al. (2008).

Table C.26 **VET workforce, by year of arrival in Australia**
Per cent of workers

	TAFE[a]	*Non-TAFE*[a]
Trainers and assessors		
2000–2006	1.5	3.6
1990–1999	3.4	4.2
<1989 or Australian-born	95.1	92.2
Other VET professionals		
2000–2006	2.8	4.0
1990–1999	4.9	6.0
<1989 or Australian-born	92.3	90.0
General staff		
2000–2006	3.2	4.0
1990–1999	4.3	6.0
<1989 or Australian-born	92.5	90.0
All VET workers		
2000–2006	2.3	3.9
1990–1999	3.9	4.4
<1989 or Australian-born	93.7	91.7

a Data exclude multiple-job holders who do not classify VET as their main job. Omits workers who did not state their year of arrival.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data.

Table C.27 **VET workforce, by English proficiency, 2006**

Per cent of workers

	TAFE[a]	*Non-TAFE*[a]
Trainers and assessors		
Speaks English only	91.8	90.4
Speaks other language; speaks English well or very well	8.1	9.3
Speaks other language; speaks English not well or not at all	0.1	0.3
Other VET professionals		
Speaks English only	89.3	88.6
Speaks other language; speaks English well or very well	10.5	11.1
Speaks other language; speaks English not well or not at all	0.2	0.3
General staff		
Speaks English only	87.7	86.7
Speaks other language; speaks English well or very well	12.0	13.0
Speaks other language; speaks English not well or not at all	0.3	0.3
All VET workers		
Speaks English only	89.9	89.8
Speaks other language; speaks English well or very well	9.9	10.0
Speaks other language; speaks English not well or not at all	0.2	0.3

a Data exclude multiple-job holders who do not classify VET as their main job. Omits workers who did not state their English proficiency.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data.

C.2   Career pathways in VET

In the tables that follow, all numbers represent frequencies, except where otherwise indicated.

Entry into VET

Table C.28   **Reasons for entering the VET workforce, by current position, 2010**
Number of workers

	Current position			
Reasons for entering	Trainers & assessors	Other VET professionals	General staff	Total
Want to teach	960	290	53	1 303
Injury/illness	32	10	6	48
Hours/work-life balance	443	194	95	732
Job security	156	123	95	374
Pay	135	63	25	223
Nature of work	559	422	183	1 164
Job was available	276	355	247	878
Other reasons	15	24	22	61
Responses	2 576	1 481	726	4 783
Individuals	1 452	993	540	2 985

Source: Productivity Commission estimates based on unpublished data from DEEWR (2010i).

Table C.29   **Entry into VET, by age and position, 2006**
Number of workers

	Entry position			
Age at entry	Trainers & assessors	Other VET professionals	General staff	Total
20 and under	33	0	48	81
21–34	294	5	170	469
35–49	278	11	146	435
50–60	41	5	29	75
Over 60	14	1	5	20
Total	660	22	398	1 080

Source: Productivity Commission estimates based on unpublished data from Simons et al. (2009).

Table C.30 Entry into VET, by employment type and position, 2006

Number of workers

| | Entry position | | | |
Employment type	Trainers & assessors	Other VET professionals	General staff	Total
Permanent/ongoing	220	16	173	409
Fixed-term contract	146	4	139	289
Non-fixed term contract	36	0	32	68
Sessional contract/HPI	217	0	6	223
Employment agency	0	0	21	21
Self-employed consultant	4	2	1	7
Business owner	2	0	0	2
No response	30	0	25	55
Invalid response	5	0	1	6
Total	660	22	398	1 080

Source: Productivity Commission estimates based on unpublished data from Simons et al. (2009).

Table C.31 Entry into VET, by hours arrangement and position, 2006

Number of workers

| | Entry position | | | |
Hours arrangement	Trainers & assessors	Other VET professionals	General staff	Total
Full-time	300	16	264	580
Part-time	111	3	61	175
Casual	195	0	58	253
No response	51	3	13	67
Invalid response	3	0	2	5
Total	660	22	398	1 080

Source: Productivity Commission estimates based on unpublished data from Simons et al. (2009).

Table C.32 Employment prior to VET entry, by position, 2006

Number of workers

| | Entry position | | | |
Prior employment	Trainers & assessors	Other VET professionals	General staff	Total
Yes	509	19	261	789
No	146	3	136	285
No response	4	0	1	5
Invalid response	1	0	0	1
Total	660	22	398	1 080

Source: Productivity Commission estimates based on unpublished data from Simons et al. (2009).

Table C.33 **Industry of employment prior to VET entry, by position, 2006**

Number of workers

Industry	Entry position			
	Trainers & assessors	Other VET professionals	General staff	Total
Agriculture, forestry & fishing	21	1	11	33
Mining	1	0	2	3
Manufacturing	30	1	15	46
Electricity, gas and water & waste services	15	0	4	19
Construction	21	0	4	25
Wholesale trade	6	0	5	11
Retail trade	31	0	20	51
Personal and other services	23	1	3	27
Transport, postal & warehousing	10	0	9	19
Arts & recreation services	14	0	6	20
Information media & telecommunications	7	2	8	17
Finance and insurance services	9	2	6	17
Rental, hiring & real estate services	1	0	3	4
Professional, scientific & technical services	27	0	5	32
Education & training	96	6	28	130
Health care & social assistance	50	1	23	74
Public administration & safety	10	0	13	23
Administrative & support services	9	1	25	35
Other industry	116	1	58	175
Unsure	4	1	4	9
No response	20	2	7	29
Invalid response	13	2	9	24
Not applicable	126	1	130	257
Total	660	22	398	1 080

Source: Productivity Commission estimates based on unpublished data from Simons et al. (2009).

Mobility in VET

Table C.34   Job changes within VET, by entry position, 2006
Number of workers

	Entry position			
Number of moves	*Trainers & assessors*	*Other VET professionals*	*General staff*	*Total*
None	105	5	64	174
1–2 moves	252	8	145	405
3–5 moves	195	7	135	337
6–10 moves	83	0	43	126
More than 10 moves	3	0	6	9
Total	638	20	393	1 051

Source: Productivity Commission estimates based on unpublished data from Simons et al. (2009).

Table C.35   Role changes in VET between entry and current position, 2006
Number of workers

	Entry position			
Current position	*Trainers & assessors*	*Other VET professionals*	*General staff*	*Total*
Trainers & assessors	484	1	37	522
Other VET professionals	103	16	15	134
General staff	58	4	338	400
Total	645	21	390	1 056

Source: Productivity Commission estimates based on unpublished data from Simons et al. (2009).

Table C.36   **Changes in mode of employment, by current position, 2010**

Number of workers

Current employment status	Previous employment status				
	Casual	*Fixed-term*[a]	*Ongoing/ Permanent*	*Self-employed contractor*	*Total*
Trainers and assessors					
Casual	20	10	9	2	41
Fixed-term[a]	51	58	11	2	122
Ongoing/Permanent	127	282	91	19	519
Self-employed contractor	2	6	2	4	14
Total	200	356	113	27	696
Other VET professionals					
Casual	4	3	4	0	11
Fixed-term[a]	17	11	20	1	49
Ongoing/Permanent	86	151	104	13	354
Self-employed contractor	0	2	4	1	7
Total	107	167	132	15	421
General staff					
Casual	2	0	5	0	7
Fixed-term[a]	4	8	4	0	16
Ongoing/Permanent	46	67	69	3	185
Total	52	75	78	3	208

a Includes sessionals.

Source: Productivity Commission estimates based on unpublished data from DEEWR (2010i).

Table C.37 **Changes in hours arrangements, by entry position, 2006**

Number of workers

Current arrangements (by entry position)	Entry arrangements					
	Full-time	*Part-time*	*Casual*	*No response*	*Invalid response*	*Total*
Trainers and assessors						
Full-time	137	47	72	9	1	266
Part-time	19	17	27	2	0	65
Casual	9	2	29	0	0	40
No response	134	45	65	39	1	284
Invalid response	1		2	1	1	5
Total	300	111	195	51	3	660
Other VET professionals						
Full-time	8	2	0	1	0	11
Part-time	0	1	0	0	0	1
No response	8	0	0	2	0	10
Total	16	3	0	3	0	22
General staff						
Full-time	168	20	28	6	1	223
Part-time	12	20	10	0	0	42
Casual	3	1	4	1	0	9
No response	81	20	16	6	1	124
Total	264	61	58	13	2	398

Source: Productivity Commission estimates based on unpublished data from Simons et al. (2009).

Table C.38 **Changes in employer type, by entry position, 2006**

Number of workers

Employer at entry to VET (by entry position)	Current VET employer						
	TAFE	School	Community	Enterprise	Industry	Commercial	Total
Trainers and assessors							
TAFE	428	3	5	4	6	3	449
School	21	6	3	1	1	0	32
Community	14	0	23	2	0	2	41
Enterprise	5	0	1	18	1	2	27
Industry	4	0	1	3	21	0	29
Commercial	9	1	2	2	0	21	35
Total	481	10	35	30	29	28	613
Other VET professionals							
TAFE	8	0	1	0	0	0	9
School	1	1	0	0	0	0	2
Community	0	0	1	0	0	0	1
Enterprise	0	0	1	3	0	1	5
Industry	0	0	0	0	2	0	2
Total	9	1	3	3	2	1	19
General staff							
TAFE	316	0	1	0	0	0	317
School	6	1	0	0	0	0	7
Community	3	0	17	0	0	0	20
Enterprise	2	0	0	7	0	0	9
Industry	2	0	1	0	15	1	19
Commercial	0	0	1	0	0	3	4
Total	329	1	20	7	15	4	376

Source: Productivity Commission estimates based on unpublished data from Simons et al. (2009).

Table C.39 Workers returning to, or remaining in, TAFE, by entry position and employer type, 2006

Number of workers

Entry position	Returned to TAFE	Remained in TAFE	Total
Trainers and assessors	347	81	428
Other VET professionals	6	2	8
General staff	255	61	316

Source: Productivity Commission estimates based on unpublished data from Simons et al. (2009).

Exits from VET

Table C.40 Intentions to exit VET within 12 months, by current age and position, 2010

Number of workers

| Intention to exit (by current position) | Current age (years) | | | | | | |
	24 and under	25–34	35–44	45–54	55–64	65 and over	Total
Trainers and assessors							
Yes	0	8	21	34	26	4	93
No	9	92	247	391	308	35	1 082
Unsure	3	27	61	107	72	7	277
Total	12	127	329	532	406	46	1 452
Other VET professionals							
Yes	5	15	17	22	18	7	84
No	30	86	163	242	161	6	688
Unsure	25	45	42	75	32	2	221
Total	60	146	222	339	211	15	993
General staff							
Yes	7	12	4	8	11	2	44
No	24	57	100	93	79	0	353
Unsure	21	35	35	29	21	2	143
Total	52	104	139	130	111	4	540

Source: Productivity Commission estimates based on unpublished data from DEEWR (2010i).

Table C.41 Intentions to retire from VET within 12 months, by age group, 2010

Number of workers

Intention to retire	Current age (years)			
	45–54	*55–64*	*65 and over*	*Total*
Trainers & assessors				
Intended retirements	0	9	6	15
Total number of respondents	532	406	46	984
Other VET professionals				
Intended retirements	1	3	2	6
Total number of respondents	339	211	15	565
General staff				
Intended retirements	1	8	3	12
Total number of respondents	130	111	4	245

Source: Productivity Commission estimates based on unpublished data from DEEWR (2010i).

Table C.42 Reasons for intending to exit the VET workforce, by current position, 2010

Number of workers

Reason for intending to exit[a]	Current position			
	Trainers and assessors	*Other VET professionals*	*General staff*	*Total*
Like to work more hours	2	1	1	4
Like to work less hours	12	9	4	25
Like to work different hours	7	3	1	11
Not enough job security	14	15	7	36
Rate of pay is too low	33	25	13	71
Poor management	42	35	13	90
Retirement	12	15	6	33
No career opportunities	26	31	16	73
Do not want to teach	4	2	0	6
Other reasons	15	8	4	27
Total number of responses	167	144	65	376
Total number of individuals	93	84	44	221

[a] Total responses is greater than total individuals as more than one reason for intending to exit was allowed.

Source: Productivity Commission estimates based on unpublished data from DEEWR (2010i).

Factors influencing career durations in TAFE

During the course of this study, the Commission was able to access a selection of administrative data on employees in all Technical and Further Education (TAFE) institutes in New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, and the ACT.

There were limitations to the analysis that could be undertaken using these data, due to the way in which data were reported. For example, data were not always reported on a consistent basis across different jurisdictions; continuous variables were frequently provided in categorical form; and workers' tenure was measured in terms of their tenure at a particular TAFE institute, rather than in the sector overall. Nevertheless, these data enabled the Commission to build up a picture of employment tenure in TAFE institutions.

Duration analysis of tenure

Tenure data should not be described and modelled using traditional econometric methods of analysis, such as ordinary least squares regression, as the assumption of a normal distribution for employment tenures is unlikely to hold. Instead, such data are best examined using techniques associated with duration (or survival) analysis (box C.1).

A Generalised Gamma model was used to relate an individual's employment duration in TAFE (in logarithmic form) to a selection of variables that describe his or her personal characteristics, institution and job (table C.43). The time ratio shows how the expected duration changes when the corresponding explanatory variable assumes a different value, with all other variables held constant. For example, for a person of average age, a one-year increase in age increases the expected duration of employment in TAFE by 17 per cent. The time ratio for the squared term for age indicates that the size of this effect declines with age. The expected duration of employment in TAFE is longer for older people, for females, for those who work more hours or have a high hourly wage, those who are in ongoing positions, those who work as trainers and assessors or those who are located outside Victoria and the ACT.[2]

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[2] The effects of being in Victoria or being an other VET professional are not statistically significant.

Box C.1 An introduction to duration analysis

Analysis of duration data has long been conducted in biometrics and statistics but its use in economics began in the 1970s with the analysis of individual unemployment spells. Duration analysis seeks to answer questions about 'whether and when' an event occurs, such as retirement or changing jobs. It is well suited to analysing data on individuals' employment histories.

There are two key tools for this type of analysis, namely the survival function and the hazard function. The *survival function* shows, for each time *t*, the probability of, for example, remaining in a job beyond time *t*, given that an individual has not left his or her job prior to time *t*. The survival function begins at 1 and declines toward zero over time. The survival function is estimated using the Kaplan–Meier estimator. 'Censoring' occurs when individuals have not changed job by the end of the observation period and these censored observations are ignored in the calculations.

The *hazard function* shows the probability of, say, a job change in a given time interval, conditional on not having changed jobs up to the beginning of that interval. It is also referred to as an 'instantaneous rate of failure', where failure is, in this case, defined as changing jobs. The hazard function varies from 0 (no risk of job change) to infinity (certainty of job change).

Duration analysis might be simple and descriptive, or involve more complex causal modelling. The Generalised Gamma model has a highly flexible hazard function that allows for many possible shapes that are determined by its parameters (sigma and kappa). It includes other models as special cases and is commonly used to select an appropriate parametric model for the data at hand. This model does not impose the assumption of a proportional relationship between the hazard and the baseline hazard.

The Generalised Gamma model is specified in an Accelerated Failure-Time form, in which durations, rather than the actual risk process (hazard) that causes job change, are modelled. Coefficients are reported as time ratios, and each shows the factor by which duration is multiplied as a result of increasing the corresponding variable by one unit. A time ratio of value less that 1 indicates that the expected duration decreases (an earlier job change), and a ratio greater than 1 indicates an increase in the expected duration. Standard errors can be calculated and significance of variables at the 1 per cent level is indicated by a z-score of about three or higher (p values show exact levels of significance).

Source: Cleves et al. (2008); Lancaster (1990).

Table C.43   **Generalised Gamma model of TAFE employment duration[a]**

Variable	Time ratio	Standard error	z-score	p-value
Age	1.1723	0.0107	17.50***	0.000
Age squared	0.9986	0.0001	-14.28***	0.000
Males relative to females	0.8321	0.0278	-5.51***	0.000
Ongoing	4.0465	0.1501	37.68***	0.000
Weekly hours	1.0337	0.0016	21.05***	0.000
Hourly wage	1.0158	0.0022	7.15***	0.000
Trainers and assessors	1.4075	0.0566	8.49***	0.000
Other VET professionals	1.0425	0.1262	0.34	0.731
NSW	3.0091	0.2847	11.64***	0.000
Vic	1.1403	0.1034	1.45	0.148
Qld	11.5002	1.6129	17.41***	0.000
SA	2.1362	0.2127	7.62***	0.000
WA	1.2552	0.1217	2.34**	0.019
Tas	3.7002	0.4967	9.75***	0.000
ln(sigma)[b]	0.1615	0.0364	4.44***	0.000
Kappa	0.4502	0.0515	8.74***	0.000
Sigma	1.1753	0.0428		

a Model diagnostics: no. subjects 40 047; no. observations = 40 047; no. failures = 2936; time at risk = 412 093; log likelihood = -10 399; LR $chi^2(14)$ = 5398; p-value = 0.000. **b** Sigma is included in the model in logarithmic form. Thus a test of ln(sigma) = 0 is also a test of sigma = 1. *** Significant at the 1 per cent level. ** Significant at the 5 per cent level.

Source: Productivity Commission estimates based on TAFE administrative data for all jurisdictions except the Northern Territory (not supplied).

Kappa and sigma are the shape parameters. Kappa is midway between zero and one, and sigma is more than one (ln(sigma) greater than zero), indicating that the baseline hazard function is not constant over time and cannot be modelled using either of the restricted versions of the Generalised Gamma model: the Weibull and the exponential models. Further analysis indicates that the Generalised Gamma model provides the best representation for these data, with the highest log-likelihood and lowest Akaike Information Criterion (table C.44). A plot of the Cox-Snell residuals from the Generalised Gamma model and their cumulative hazard function (not shown) provides further indication that this model is of good fit to these data on employment duration in TAFE.

Table C.44 **Goodness-of-fit in TAFE employment duration models[a]**

Model	Log-likelihood[a]	Degrees of freedom	AIC[b]
Generalised Gamma	-10399.37	17	20832.74
Weibull	-10449.33	16	20930.65
Exponential	-10547.50	15	21125.00

a A higher value for the log-likelihood (smaller negative) indicates a better fitting model. **b** A lower value for the Akaike Information Criterion indicates a better fitting model.

Source: Productivity Commission estimates based on TAFE administrative data for all jurisdictions except the Northern Territory (not supplied).

C.3 Recruitment and salaries

Table C.45 **Employer efforts to recruit trainers and assessors, 2010**

By provider type

	ACE	ERTO	Other	Private RTO	TAFE	All
	%	%	%	%	%	%
Recruitment activity						
Providers recruiting[a]	62.3	55.6	57.3	64.9	100.0	63.0
(of which) Providers replacing only	28.0	30.0	21.6	19.3	45.5	22.8
Providers filling all vacancies	81.4	96.7	76.0	76.4	63.6	78.6
Ease of recruitment among providers recruiting						
Providers unable to fill vacancies	2.3	0.0	6.0	13.2	0.0	8.8
Providers experiencing recruitment difficulties	62.8	56.7	66.0	62.1	81.8	63.0
(of which) Responses to difficulties						
Providers compromising	25.9	17.7	18.2	21.3	22.2	21.1
Providers reporting unfilled vacancies	22.2	5.9	34.4	35.5	44.4	31.2
(of which) Providers using longer hours from staff	50.0	0.0	50.0	46.3	66.7	47.7
Providers compromising on skills to fill positions	19.1	16.7	17.0	21.2	18.2	19.6
(of which) Providers hiring staff requiring teaching qualifications	75.0	50.0	75.0	60.0	50.0	63.5
Providers hiring staff requiring industry currency	0.0	50.0	50.0	43.3	0.0	36.5
Providers hiring staff with none of the required skills	2.4	3.3	4.3	6.0	0.0	4.6

a Recruitment may be in order to replace staff, to expand staff, or both.

Source: Productivity Commission estimates based on unpublished data from DEEWR (2010i).

Table C.46 **Annual salary scales for VET trainers and assessors, 2010–2011**

Lecturer/teacher scales

Level & pay	NSW Level	NSW $	Vic Level	Vic $	Qld Level	Qld $	SA Level	SA $	WA Level	WA $	Tas Level	Tas $	NT Level	NT $	ACT Level	ACT $	Modern award Level	Modern award $
	10[a]	71 469	1.1	48 055	1	58 035	1	55 130	1	60 037	1	50 632	1	42 226	1	58 254	1	37 570
	11	74 394	1.2	51 630	2	60 733	2	60 820	2	62 607	2	54 232	2	45 390	2	60 993	2	38 089
	12	77 327	2.1	56 015	3	63 430	3	65 087	3	65 287	3	59 349	3	48 917	3	63 729	3	38 869
	13	84 759	2.2	59 483	4	66 175	4	69 355	4	67 768	4	62 571	4	57 975	4	66 607	4	39 657
			3.1	60 724	5	68 974	5	76 045	5	70 344	5	65 624	5	59 733	5	69 617	5	41 316
			3.2	65 269	6	71 756	6	79 034	6	73 016	6	69 002	6	62 373	6	72 355	6	42 421
			4.1	66 993	7	74 563			7	75 791	7	72 512	7	65 187	7	75 230	7	43 428
			4.2	71 286					8	78 671	8	75 880	8	67 565	8	78 380	8	44 534
			5.0	74 624					9	81 662	9	78 509	9	70 644			9	45 645
													10	74 657			10	47 080
																	11	48 415
																	12	49 594
Average step ($)		3 323		2 952		2 361		3 984		2 403		3 097		3 243		2 516		1 002
Per cent		4.3		4.8		3.6		5.9		3.4		4.7		5.5		3.7		2.3
Date effective		Jan 2011		Oct 2010		Aug 2010		Oct 2010		Sept 2010		Mar 2010		Feb 2010		Jul 2010		Jan 2010

a NSW pay scales for VET trainers and assessors begin at level 10.

Source: Karapas, G., DFEEST, pers. comm., 15 September 2010.

C.4 Data sources

Since there is no single dataset available that would provide a comprehensive profile of the VET workforce, this study relies on multiple data sources to capture its various dimensions. The profile of the VET workforce presented in the report uses the most robust data sources available for the workforce characteristics of interest. The Commission acknowledges, however, that the nature of the dataset used will shape the profile of the VET workforce that is generated. The main data sources used in this report are detailed below, and some of their limiting features are noted.

Census data

The ABS Census of Population and Housing (ABS 2006d) categorises workers according to the occupation and industry of their main job, based on the Australian and New Zealand Standard Classification of Occupations (ANZSCO) (ABS 2006b) and the Australian and New Zealand Standard Industrial Classification (ANZSIC) (ABS 2006c). The most recent Census data available are for 2006.

An advantage of the Census dataset is that it uses a relatively detailed level of disaggregation to classify workers' occupation and industry (ANZSCO and ANZSIC 4-digit level codes). This enables members of the VET workforce to be identified by the specific type of role that they perform within the sector. Another advantage to the Census dataset is that it contains the whole of the population, so that sampling methodologies are not a concern.

A drawback to the Census data is that workers are categorised by their main job only. Consequently, the dataset cannot identify multiple-job holders who contribute to the delivery of VET, but not as part of their main job. Another limitation of the Census data is that data are collected at a single point in time during the year. Point-in-time estimates may not adequately capture VET workers who are employed intermittently during the year. As such, they are an imperfect reflection of the total number of workers employed in the sector within a given year.

Due to these various features, the Census data generates a relatively conservative measure of the size of the VET workforce compared to other data sources detailed (table C.1).

Survey of Education and Training

As in the Census, the ABS Survey of Education and Training (SET) (ABS 2009d) categorises workers according to their main job using ANZSCO (ABS 2006b) and ANZSIC (ABS 2006c). Data on workers' occupations and industries in the SET, however, are made available at a more aggregated level than in the Census. The most recent data available from the SET are for 2009.

A specific feature of the SET is that respondents are asked to indicate whether they provide VET as part of their main job. This means that workers who contribute to VET can be identified, even if it is not evident from their occupation or industry. The SET also includes information on the type of organisation where the worker is employed, which is not available in the Census.

Like the Census data, the usefulness of the SET data is limited by the fact that workers are categorised according to their description of their main job only, and that the data are collected at a single point in time. For these reasons, the SET is not expected to capture multiple-job holders for whom VET is not a main job, or workers who are employed in the VET sector intermittently throughout a given year.

An added disadvantage of the SET is that workers' self-reported involvement in VET might be interpreted very broadly by the respondent. Furthermore, the SET sample of respondents is designed to be representative of the total labour force, but is not necessarily representative of the VET workforce. The profile of the VET workforce generated by the SET should therefore be considered as indicative only.

The SET data generate a very large estimate of the total size of the VET workforce (table C.1). This can be attributed, in part, to the SET's broader scope for the sector, since workers' involvement in VET is a self-reported item, and the survey includes, for example, product manufacturers who provide training to users of the product but who are not necessarily employees of a Registered Training Organisation (RTO). The high estimate produced by the SET could also be an artefact of the weighting that needs to be applied to the survey sample to derive population estimates.

TAFE administrative data

TAFE administrative datasets were provided to the Commission by all jurisdictions except the Northern Territory. Administrative data capture the entire TAFE workforce for the most recent years available. The available data refer to 2009-10 for all jurisdictions except South Australia (2008-09).

Since they are drawn from the human resource management systems of providers, an advantage of administrative data — compared to the Census and the SET — is that they capture all of the employees of TAFEs, irrespective of whether these workers' employment in TAFE is their main job. Furthermore, the data capture all workers who were employed by the TAFE at any time throughout a given year, thereby including those with only an intermittent involvement in the sector.

Although the administrative data include multiple-job holders, these workers cannot necessarily be identified in the dataset. Additionally, the use of independent contractors by VET providers might not be recorded.

Another consideration when using administrative data is that methods for classifying workers by their job role, and for recording other data items, vary widely across the jurisdictions. Consequently, for some workforce characteristics, it is difficult to derive a national profile of the VET workforce using this source.

DEEWR survey data

The Department of Employment, Education and Workplace Relations (DEEWR) survey collected data from both public, private and enterprise providers and their employees in 2010 (DEEWR 2010i). The survey collected responses from a total of 512 RTOs, which provided a sample of 1452 trainers and assessors, 993 other VET professionals and 540 general staff. Designed to address some of the deficiencies of other data collections, the survey included information on multiple-job holding and teaching qualifications among VET workers.

An advantage of the DEEWR survey — as with the administrative data — is that it includes workers who are employed in VET in the dataset, even if it is not their main job. A distinctive feature of the DEEWR survey is that it includes a survey item to identify these multiple-job holders.

Since it was sourced from a survey, however, the DEEWR data are subject to sampling error. For example, casual employees and other workers with a marginal attachment to the sector are thought to be under-represented in survey data, compared to the much stronger survey response from ongoing VET employees.

C.5 Estimation of the size of the VET workforce

Table C.1 lists the estimates of the size of the VET workforce that are available from multiple data sources. While the Commission considers the estimated size of the TAFE workforce based on administrative data to be reasonably accurate, the

wide variations in estimates of the non-TAFE and total VET workforces demonstrate that computing the size of these workforces is not a straightforward task.

That said, adjustments can be made to available estimates to control for some of the differences between the data sources. These adjusted data can then be used to impute the size of the non-TAFE and total VET workforces. This section discusses the Commission's method of calculating these adjustments and imputations.

Adjusting for differences between data sources

The Commission identified two main ways in which data can be adjusted to make them comparable and, therefore, a useable source in calculations. First, data that include only workers employed in VET as their main job can be inflated to include multiple-job holders whose main job is not in VET. Second, data sources which represent a count of the workforce at a single point in time can be inflated to capture all workers employed in the sector at some point in time during a given year. It is crucial to consider these factors in measuring the size of the VET workforce, because multiple job holding is common in the sector and, for many workers, their involvement in VET is intermittent throughout the year.

The methods of adjustment explained in this section are based on estimates generated by the TAFE administrative data (unpublished 2008–2010) and the Census data (ABS 2006d) because, as discussed in section C.3, these sources are considered to be reliable representations of their respective scope, and their scope can be reasonably well defined.

Based on Census data for 2006, the Commission's estimate of the size of the TAFE workforce — at 42 900 workers — contains main-job holders only and is a count at a single point in time. By contrast, the Commission's estimate of the number of workers employed in the TAFE workforce based on jurisdictional administrative data for 2008 to 2010 — at 73 400 workers — includes multiple-job holders and counts workers employed in TAFE at any single time within the year.

The ratio of these two figures (equal to 1.71) is the factor by which the other Census data can be scaled upwards to account for multiple-job holders and capture all workers employed at some point during the year. The difference in years between the source and destination TAFE estimates means that this inflation factor also allows the non-TAFE workforce to be corrected for employment growth over time.

This adjustment method assumes that:

- the incidence of multiple-job holding and turnover during a year is the same for the TAFE and non-TAFE sectors
- the incidence of multiple-job holding and turnover during a year is the same over time
- the share of the total VET workforce comprised of trainers and assessors is the same for the TAFE and non-TAFE sectors
- the rate of employment growth over time is the same for the TAFE and non-TAFE sectors.

Adjusted estimates

Applying the method described above, table C.47 presents the adjusted estimates of the size of the VET workforce using the original Census estimates. Table C.48 disaggregates the adjusted figures by the TAFE or non-TAFE sector and by workers' job role.

Table C.47 Adjusted estimates of size of the VET workforce

	VET workforce		TAFE workforce	
Source	Trainers & assessors	All VET workers	Trainers & assessors	All TAFE workers
Original Census estimates (2006)[a]	62 900	130 600	20 200	42 900
Adjusted Census estimates (~2008-2010)[b]	107 600	223 400	34 600	73 400[c]

a Only includes workers employed in VET as their main job. Point-in-time estimates. **b** Original Census estimates rescaled to account for multiple-job holders, conversion to whole-year estimates, and possible employment growth over time. Rounded off to nearest 100 workers. **c** Original estimate from TAFE administrative data supplied by jurisdictions (except the Northern Territory).

Table C.48 Adjusted estimates of size of the VET workforce, by sector and job role[a]

	Trainers & assessors	Non trainers & assessors	Total workforce
TAFE	34 500	38 900	73 400[b]
Non-TAFE	73 000	77 000	150 000
Total VET sector	107 600	115 800	223 400

a Includes multiple-job holders. Refers to whole-year estimates within the period 2008-2010. Rounded off to nearest 100. **b** Original estimate from TAFE administrative data supplied by jurisdictions (except the Northern Territory).

When adjusted for multiple-job holding and point-in-time effects, the Census estimates suggest that, over the duration of a year, around 223 000 workers — or around 2 per cent of the total labour force — are involved in the delivery of VET (table C.48).[3] Of these workers, around 73 000 are employed by TAFEs while the remaining 150 000 work for non-TAFE providers.

Although the adjusted Census estimates are considered to be a reliable count of VET workers as identified by their industry and occupation, they are subject to the limitation that — even after adjusting for multiple-job holding — workers who deliver accredited training and assessment outside of their specified job function might still be excluded. This is the case for many staff employed by Enterprise Registered Training Organisations (ERTOs). For this reason, the adjusted Census estimates are still considered to be a conservative count of the actual number of workers involved in the delivery of VET in some way.

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[3] Share of labour force based on ABS (various years) *Labour Force Australia*, Cat. no. 6202.0.

D   System performance

Performance of the vocational education and training (VET) system can be measured in a number of ways, including:

- accessibility (in its various dimensions) — can potential students access the training of their choice

- student outcomes — in terms of employment and further study

- stakeholder satisfaction — where key stakeholders are students and employers

- the resources expended in achieving outcomes.

The first three sets of measures refer primarily to the effectiveness of the system, and the fourth relates to its efficiency. Data on effectiveness is presented in section D.1. A discussion of the efficiency of the publicly-funded VET sector, expressed in terms of workforce productivity, is presented in section D.2. This material responds to the study's Terms of Reference request for the Commission to comment on the efficiency, effectiveness and productivity of the VET workforce. The Commission's definitions of these terms are presented in box D.1.

Box D.1   Defining efficiency and effectiveness

Overall *economic efficiency* means that an economy's resources are used in a way that leads to the highest possible level of community welfare and living standards — the goods and services outputs are those that the community values most and they are produced using the minimum possible level of inputs. Economic efficiency comprises:

- *Allocative efficiency*, which results when the goods and services that are produced are those that consumers value most

- *Technical (or productive) efficiency*, which results when goods and services are produced with the minimum amount of inputs required

- *Dynamic efficiency*, which results when resources are split between current and future production in a way that maximises productive and allocative efficiency over time.

Effectiveness reflects how well an entity's outputs achieve its stated objectives, however defined.

Source: Adapted from PC (1999).

D.1 Effectiveness of the VET system

Accessibility

The data presented in table D.1 are discussed in chapter 6.

Table D.1 **People aged 15–64 who applied to study but were unable to gain a place, by type of institution, 2004 to 2009**

Per cent

	2004	2005	2006	2007	2008	2009
TAFE	34.1	34.2	26.5	27.5	29.0	28.8
Higher education	27.5	24.4	20.7	16.7	19.0	29.4
Other providers	11.4	10.8	9.0	9.2	11.4	15.7
Total	73.0	69.4	56.2	53.4	59.4	73.9

Source: ABS various issues, *Education and Work*, Cat. no. 6227.0, ABS, Canberra.

Student outcomes and stakeholder satisfaction

To support continuous improvements, and to inform assessments of risk management, the National Quality Council (NQC) requires Registered Training Organisations (RTOs) to collect and use data on the following quality indicators:

- Learner Engagement – This indicator focuses on the extent to which learners are engaging in activities likely to promote high-quality skill outcomes and includes learner perceptions of the quality of their competency development and the support they receive or have received from RTOs.

- Employer Satisfaction – This indicator focuses on employer evaluation of learner competency development and the relevance of learner competencies for work and further training, as well as employer evaluation of the overall quality of the training and assessment.

- Competency Completion – This indicator shows the number of enrolments and qualifications completed and units of competency awarded in the previous calendar year by each RTO. (Department of Education, Employment and Workplace Relations (DEEWR) 2008, p. 2)

A compilation of the data relating to these indicators that are collected by RTOs is not currently published. The National Centre for Vocational Education Research (NCVER), however, does collect data on subject completions, and runs large-scale surveys on student outcomes and employer satisfaction. Data on completions and student outcomes relate only to the publicly-funded VET sector. Employers' views are based on experiences of all RTO activity, including that provided on a

fee-for-service basis and/or unaccredited. Data from these collections are presented below. In interpreting these data, it should be acknowledged that:

- the VET workforce is only one contributor to student outcomes and stakeholder satisfaction

- indicators of satisfaction are open to criticism.

Regarding the first point, there is some evidence that, although a range of factors influence student satisfaction, the workforce is a key factor. Ward (2008) tested the relationship between student satisfaction and 27 possible explanatory variables. Issues relating to teaching and learning, the social environment and course organisation were found to be the best predictors of overall satisfaction.

Regarding the second point, Curtis (forthcoming) reviewed five provider-level performance indicators — ranging from subject completion rates to student satisfaction with teaching, assessment, learning and overall (as measured within the *Student Outcomes Survey* conducted by the NCVER). Curtis concluded that the subject completion rate measure captures the concept it is intended to capture, and does so consistently across data collections. His conclusion on the student satisfaction measures is that the indicators are robust, and that responses to them can be used as a basis for client satisfaction measures.

Data on the performance of the publicly-funded VET sector are presented in the following tables.

Table D.2 **Subject enrolments by result, publicly-funded VET sector, 2000 to 2009**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Growth in subject results% 2000–2009
	%	%	%	%	%	%	%	%	%	%	
Subject result											
Assessed – passed	64.2	65.9	67.7	68.1	69.1	69.4	68.4	68.3	68.1	67.3	25.8
Assessed – failed	9.0	8.5	8.3	7.7	7.5	6.6	6.4	6.5	6.6	6.9	-8.3
Withdrawn	8.7	9.5	9.0	8.7	8.9	9.3	9.4	9.1	8.8	8.2	12.9
Recognition of Prior Learning	2.7	2.8	3.1	3.0	2.6	2.7	3.2	3.3	4.1	4.9	120.6
Continuing studies	6.6	6.2	6.1	6.4	6.5	6.2	6.7	7.3	7.1	8.0	44.9
All other subject results[a]	8.8	7.0	5.7	6.1	5.4	5.8	6.0	5.5	5.3	4.7	-35.9
Total (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Total subject enrolments (no.)	**11 335**	**11 919**	**11 977**	**11 976**	**11 396**	**11 714**	**12 031**	**12 341**	**12 965**	**13 596**	**20.0**

a Includes: Recognition of prior learning (not granted), recognition of prior competency (granted and not granted), not assessed (completed and not completed) and not know subject results (for 2000 and 2001).

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981*, www.ncver.edu.au/statistic/publications/2244.html (accessed 3 September 2010).

Table D.3   **Subject enrolments results, Indigenous students and students with disability, publicly-funded VET sector, 2009**

Per cent

Subject result	Indigenous students	Students with disability	All students
Assessed – passed	61.3	61.6	67.3
Assessed – failed	7.1	9.7	6.9
Withdrawn	16.7	13.3	8.2
Recognition of Prior Learning	2.8	2.8	5.0
Continuing studies	7.7	4.8	8.0
Not assessed – completed	4.2	7.0	4.2
Not assessed – not completed	0.2	0.6	0.3
Total	**100.0**	**100.0**	**100.0**

Source: NCVER 2009, *Equity Group Student Statistics*, 2009, www.ncver.edu.au/statistic/publications/2268.html (accessed 3 September 2010).

Table D.4   **Qualification completions, publicly-funded VET sector, 2000 to 2008**

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Qualification completions ('000)									
AQF qualification level									
Diploma or higher	30.7	33.9	39.2	39.1	37.7	42.0	43.1	47.0	49.0
Certificate IV	43.3	49.2	53.0	54.5	51.6	57.0	49.6	59.5	63.8
Certificate III	81.1	87.1	92.0	97.1	101.5	112.6	112.7	122.6	142.0
Certificate II	90.1	80.2	77.7	67.9	63.6	64.7	64.8	65.6	70.9
Certificate I	18.3	17.7	21.6	18.4	16.5	20.0	21.9	24.4	25.8
Completions as a percentage of course enrolments in same year[a] (per cent)									
AQF qualification level									
Diploma or higher	14.0	15.1	17.9	18.5	19.2	21.8	22.9	25.3	25.5
Certificate IV	21.8	22.4	23.4	23.5	23.3	27.3	23.9	27.0	28.8
Certificate III	20.5	20.5	21.1	21.1	21.8	22.7	21.5	22.6	24.1
Certificate II	25.3	21.5	21.2	20.2	20.3	20.9	18.1	18.9	19.6
Certificate I	15.5	14.2	15.6	13.2	12.2	13.2	14.9	15.8	17.9

a These data do not reflect the percentage of commencing students who complete their qualifications. Rather, they reflect the ratio of the number of completions in any year to the number of students enrolled in any year of their courses at a similar level. The estimates will, therefore, be affected by changes in enrolments from year to year, to the extent that students do not complete in the year in which they enrol.

Source: NCVER, *Historical Time Series of Vocational Education and Training in Australia, from 1981,* www.ncver.edu.au/statistic/publications/2244.html (accessed 3 September 2010).

Table D.5 **Key outcome measures for graduates, publicly-funded VET sector, 2000–2009**
Per cent

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Government-funded TAFE										
Employed after training	76.0	74.4	73.8	73.9	74.6	76.5	77.4	78.8	78.2	74.7
Employed or in further study after training[a]	89.2	87.5	87.4	92.3	85.7	87.8	86.7	88.3	88.5	86.4
Enrolled in further study after training[a]	38.4	38.8	39.6	43.3	32.4	35.1	32.8	32.8	35.4	35.4
Fully or partly achieved main reason for doing the training	80.3	79.8	77.2	77.7	80.7	84.2	84.9	85.4	86.7	84.5
Satisfied with the overall quality of training[b]	79.0	80.4	76.6	82.5	85.2	88.0	88.2	89.0	89.1	89.2
Of those employed after training										
Reported that the training was relevant to their current job	76.8	75.8	75.4	73.6	72.9	72.4	72.4	74.4	73.9	74.8
Received at least one job-related benefit	68.0	65.1	65.5	67.0	70.3	78.9	74.5	72.9	74.0	73.0
Of those not employed before training										
Employed after training	46.2	43.8	40.0	41.6	41.6	45.7	46.6	47.5	46.9	40.8
Total reported VET[c]										
Employed after training	na	na	na	na	na	79.3	79.6	81.1	80.7	77.8
Employed or in further study after training[a]	na	na	na	na	na	88.7	87.8	89.2	89.1	87.6
Enrolled in further study after training[a]	na	na	na	na	na	31.6	30.2	30.8	32.8	32.1
Fully or partly achieved main reason for doing the training[a]	na	na	na	na	na	86.0	86.5	86.7	87.9	86.4
Satisfied with the overall quality of training	na	na	na	na	na	87.1	88.1	88.8	89.0	89.1
Of those employed after training										
Reported that the training was relevant to their current job	na	na	na	na	na	74.2	73.9	75.2	75.5	77.5
Received at least one job-related benefit	na	na	na	na	na	77.1	73.7	71.4	73.0	72.0
Of those not employed before training										
Employed after training	na	na	na	na	na	46.7	47.6	49.4	48.3	42.7

a Data do not include students of community education providers. **b** From 2003, satisfaction with overall quality of training was rated as 4 or 5 on a 5-point scale. For 2000 to 2002, satisfaction was rated as 7 to 10 on a 10-point scale. **c** Prior to 2005, only government funded TAFE information is available. **na** not available

Source: NCVER, *Time Series of Student Outcomes Survey* data, www.ncver.edu.au/statistic/publications/2180.html (accessed 3 September 2010).

Table D.6   **Key outcome measures for module completers, publicly-funded VET sector, 2000 to 2009**

Per cent

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Government funded TAFE										
Employed after training	71.0	67.2	65.4	65.2	66.7	66.3	67.5	66.8	68.1	63.0
Employed or in further study after training[a, b]	na	na	na	na	68.4	68.0	69.7	68.4	69.2	65.1
Enrolled in further study after training[a, b]	na	na	na	na	4.5	4.3	4.7	4.6	4.8	5.2
Fully or partly achieved main reason for doing the training	70.5	71.1	68.8	68.5	71.1	72.8	71.0	70.1	73.7	72.1
Satisfied with the overall quality of training[c]	76.3	76.2	73.8	75.6	77.0	79.3	80.0	78.9	79.9	79.5
Of those employed after training										
Reported that the training was relevant to their current job	58.6	59.8	56.0	55.4	56.2	54.9	55.7	54.2	54.6	54.5
Received at least one job-related benefit	43.1	45.1	42.6	45.1	49.5	61.5	57.1	52.7	53.6	52.5
Of those not employed before training										
Employed after training	34.8	28.2	27.6	28.7	29.3	31.0	31.2	29.9	34.6	27.5
Total reported VET[d]										
Employed after training	na	na	na	na	na	75.9	74.6	74.3	76.9	74.1
Employed or in further study after training[a]	na	na	na	na	na	78.5	78.5	77.8	79.3	77.1
Enrolled in further study after training[a]	na	na	na	na	na	4.3	4.5	4.4	4.0	4.6
Fully or partly achieved main reason for doing the training	na	na	na	na	na	82.8	81.6	80.4	82.0	82.0
Satisfied with the overall quality of training	na	na	na	na	na	85.0	84.7	83.8	85.5	84.6
Of those employed after training										
Reported that the training was relevant to their current job	na	na	na	na	na	61.7	61.3	61.3	61.6	64.5
Received at least one job-related benefit	na	na	na	na	na	61.9	57.8	53.3	54.0	54.2
Of those not employed before training										
Employed after training	na	na	na	na	na	30.7	28.3	29.0	33.3	26.0

a Data do not include students of community education providers. **b** By definition, module completers have left the VET system, therefore further study is at a University level. **c** From 2003, satisfaction with overall quality of training was rated as 4 or 5 on a 5-point scale. For 2000 to 2002, satisfaction was rated as 7 to 10 on a 10-point scale. **d** Prior to 2005, only government funded TAFE information is available. **na** not available

Source: NCVER, *Time Series of Student Outcomes Survey* data, www.ncver.edu.au/statistic/publications/2180.html (accessed 3 September 2010).

Table D.7   **VET graduates' opinions of different aspects of their training, publicly-funded VET sector, 2009**
Per cent

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Not applicable	Not answered
Teaching							
My instructors had a thorough knowledge of the subject content	1.0	1.4	4.2	33.4	57.3	1.1	1.6
My instructors provided opportunities to ask questions	1.0	1.1	3.3	32.7	59.1	1.2	1.6
My instructors treated me with respect	1.1	1.2	4.0	29.5	61.2	1.3	1.7
My instructors understood my learning needs	1.3	2.4	8.3	37.2	47.4	1.6	1.7
My instructors communicated the subject content effectively	1.3	2.5	7.0	39.4	46.6	1.4	1.7
My instructors made the subject as interesting as possible	1.7	3.6	11.9	36.8	42.4	1.6	2.0
Assessment							
I knew how I was going to be assessed	1.2	3.0	8.1	44.1	40.8	1.0	1.7
The way I was assessed was a fair test of my skills	1.2	2.3	6.5	43.8	43.6	0.9	1.7
I was assessed at appropriate intervals	1.2	2.4	6.9	44.7	41.3	1.7	1.8
I received useful feedback on my assessment	2.1	5.1	11.0	39.0	39.7	1.4	1.8
The assessment was a good test of what I was taught	1.3	2.7	8.5	43.0	41.5	1.2	1.7
Generic skills and learning experiences							
My training developed my problem solving skills	1.3	2.7	8.5	43.0	41.5	1.2	1.7
My training helped me develop my ability to work as a team member	1.5	5.2	19.0	40.0	28.3	4.3	1.7
My training improved my skills in written communication	2.3	8.9	24.4	34.8	21.6	6.3	1.8
My training helped me to develop the ability to plan my own work	1.7	5.5	19.0	41.0	26.3	4.7	1.8
As a result of my training, I feel more confident about tackling unfamiliar problems	1.5	4.3	16.3	43.0	30.3	2.8	1.7
My training has made me more confident about my ability to learn	1.5	3.9	15.5	41.6	33.2	2.5	1.7
As a result of my training, I am more positive about achieving my goals	1.5	3.7	16.5	40.5	33.4	2.7	1.7
My training has helped me think about new opportunities in life	1.6	3.8	15.2	38.3	36.1	3.3	1.8
Overall I was satisfied with the quality of this training	**1.7**	**2.9**	**6.0**	**45.8**	**40.9**	**0.0**	**2.8**

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Table D.8 **VET module completers' opinions of different aspects of their training, publicly-funded VET sector, 2009**

Per cent

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Not applicable	Not answered
Teaching							
My instructors had a thorough knowledge of the subject content	1.3	1.6	4.2	33.3	54.8	2.1	2.7
My instructors provided opportunities to ask questions	1.2	1.5	4.1	34.2	54.0	2.2	2.8
My instructors treated me with respect	1.4	1.1	4.4	31.2	56.7	2.4	2.8
My instructors understood my learning needs	1.8	3.8	10.4	37.2	40.9	2.9	3.0
My instructors communicated the subject content effectively	1.7	3.5	7.2	37.3	45.1	2.2	3.0
My instructors made the subject as interesting as possible	2.0	3.7	10.2	36.4	42.0	2.5	3.1
Assessment							
I knew how I was going to be assessed	1.4	4.0	11.0	40.5	30.1	9.4	3.7
The way I was assessed was a fair test of my skills	1.3	2.5	8.6	41.6	32.7	9.6	3.7
I was assessed at appropriate intervals	1.2	2.8	10.2	40.7	29.8	11.5	3.9
I received useful feedback on my assessment	2.0	5.5	12.3	36.4	28.8	11.1	3.9
The assessment was a good test of what I was taught	1.5	3.3	9.9	39.4	31.8	10.3	3.8
Generic skills and learning experiences							
My training developed my problem solving skills	1.5	3.3	9.9	39.4	31.8	10.3	3.8
My training helped me develop my ability to work as a team member	2.2	7.0	23.2	32.1	16.6	15.2	3.8
My training improved my skills in written communication	3.3	11.3	26.4	24.7	11.3	19.2	3.8
My training helped me to develop the ability to plan my own work	2.4	8.4	23.1	32.3	14.4	15.7	3.8
As a result of my training, I feel more confident about tackling unfamiliar problems	2.3	6.6	20.3	38.0	18.8	10.5	3.6
My training has made me more confident about my ability to learn	2.1	6.3	20.6	38.7	20.0	8.8	3.6
As a result of my training, I am more positive about achieving my goals	2.2	6.4	22.4	36.5	19.1	9.6	3.7
My training has helped me think about new opportunities in life	2.4	6.7	21.4	34.6	20.3	11.0	3.6
Overall I was satisfied with the quality of this training	**2.6**	**4.3**	**7.9**	**45.9**	**35.3**	**0.0**	**3.9**

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Table D.9 **VET graduates' opinions of different aspects of their training by qualification level, publicly-funded VET sector, 2009**

Per cent who agree or strongly agree with statements about different aspects of their training

	Diploma and above	Cert IV	Cert III	Cert II	Cert I	Total
Teaching						
My instructors had a thorough knowledge of the subject content	92.0	92.9	93.4	93.8	92.8	93.2
My instructors provided opportunities to ask questions	94.4	94.6	94.5	94.4	93.5	94.4
My instructors treated me with respect	91.6	93.5	93.7	93.8	94.3	93.5
My instructors understood my learning needs	83.7	85.9	88.8	88.2	88.2	87.5
My instructors communicated the subject content effectively	84.8	87.1	89.4	90.4	90.6	88.8
My instructors made the subject as interesting as possible	79.3	82.2	81.6	83.8	85.3	82.1
Assessment						
I knew how I was going to be assessed	89.5	90.0	88.0	85.1	78.8	87.3
The way I was assessed was a fair test of my skills	87.4	89.9	90.3	90.3	87.0	89.7
I was assessed at appropriate intervals	88.4	89.8	89.5	89.0	85.8	89.1
I received useful feedback on my assessment	79.2	81.6	82.2	80.8	80.3	81.3
The assessment was a good test of what I was taught	85.3	86.6	87.1	88.2	86.3	87.0
Generic skills and learning experiences						
My training developed my problem solving skills	76.5	72.5	74.9	69.8	74.1	73.4
My training helped me develop my ability to work as a team member	74.1	68.8	73.2	72.9	74.9	72.6
My training improved my skills in written communication	67.9	61.7	61.5	57.9	59.3	61.4
My training helped me to develop the ability to plan my own work	76.1	72.5	72.6	68.6	70.2	72.0
As a result of my training, I feel more confident about tackling unfamiliar problems	78.0	75.7	78.2	75.0	74.8	76.8
My training has made me more confident about my ability to learn	81.9	77.1	78.5	76.4	78.7	78.2
As a result of my training, I am more positive about achieving my goals	81.1	77.5	77.8	74.3	76.6	77.3
My training has helped me think about new opportunities in life	83.6	79.7	77.9	75.5	77.9	78.3
Overall I was satisfied with the quality of this training	**87.8**	**87.6**	**89.2**	**90.4**	**89.8**	**89.1**

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Table D.10 **Module completers' opinions of different aspects of their training by qualification level, publicly-funded VET sector, 2009**

Per cent who agree or strongly agree with statements about different aspects of their training

	Diploma and above	Cert IV	Cert III	Cert II	Cert I	Other	State't of attain't	Subject only enrol't	Total
Teaching									
My instructors had a thorough knowledge of the subject content	89.0	87.9	89.9	89.5	91.4	93.4	94.4	95.0	92.6
My instructors provided opportunities to ask questions	89.8	88.9	89.4	89.4	90.1	94.0	95.6	94.7	92.9
My instructors treated me with respect	85.0	88.8	88.5	89.3	93.7	94.2	94.6	95.2	92.7
My instructors understood my learning needs	70.5	71.8	77.4	79.2	82.4	86.1	88.3	85.2	83.0
My instructors communicated the subject content effectively	75.2	77.9	81.2	82.2	85.7	90.5	90.9	89.0	86.9
My instructors made the subject as interesting as possible	67.1	70.8	74.7	77.3	82.6	86.9	87.5	87.9	83.2
Assessment									
I knew how I was going to be assessed	83.8	82.6	81.5	78.5	78.7	82.6	81.7	78.9	81.2
The way I was assessed was a fair test of my skills	80.3	82.0	81.6	84.3	83.1	88.1	89.0	86.0	85.8
I was assessed at appropriate intervals	81.3	78.7	80.1	80.4	79.7	85.3	87.1	83.4	83.3
I received useful feedback on my assessment	69.9	71.5	73.7	71.9	76.7	79.4	80.3	77.8	76.8
The assessment was a good test of what I was taught	76.2	78.6	79.4	80.9	82.9	85.3	86.2	82.7	82.8
Generic skills and learning experiences									
My training developed my problem solving skills	60.8	60.8	61.5	61.9	66.8	64.9	66.3	62.4	63.4
My training helped me develop my ability to work as a team member	58.8	55.5	61.9	63.8	65.1	59.7	64.3	56.9	60.1
My training improved my skills in written communication	51.2	48.7	50.9	49.5	56.5	45.0	50.1	40.8	46.7
My training helped me to develop the ability to plan my own work	61.3	61.3	60.0	57.2	63.9	56.7	60.3	55.6	58.0
As a result of my training, I feel more confident about tackling unfamiliar problems	59.8	63.0	63.7	63.6	65.9	67.2	70.6	66.4	66.0
My training has made me more confident about my ability to learn	62.5	63.5	65.7	67.0	72.5	66.6	69.9	68.0	66.9
As a result of my training, I am more positive about achieving my goals	59.8	60.5	62.0	62.5	67.3	65.8	67.6	63.4	64.2
My training has helped me think about new opportunities in life	68.6	69.8	65.6	66.3	69.4	62.2	66.7	62.1	64.3
Overall I was satisfied with the quality of this training	**71.9**	**74.0**	**77.2**	**78.3**	**78.9**	**89.3**	**88.9**	**86.9**	**84.6**

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Table D.11 **VET graduates' opinions of their training by equity group, publicly-funded VET sector, 2009[a]**

Per cent

	Strongly agree[b]					Agree[b]				
	A	B	C	D	E	A	B	C	D	E
Teaching										
My instructors had a thorough knowledge of the subject content	59.4	52.6	57.9	58.2	58.9	32.8	40.0	34.3	36.4	34.3
My instructors provided opportunities to ask questions	60.2	55.3	58.8	60.0	60.8	32.6	38.8	34.9	35.5	33.6
My instructors treated me with respect	68.5	59.1	61.6	62.9	63.1	24.6	33.8	30.2	32.0	30.4
My instructors understood my learning needs	57.5	45.1	48.1	53.1	49.0	31.9	42.0	37.2	37.6	38.5
My instructors communicated the subject content effectively	54.3	44.9	48.3	52.3	48.1	35.8	44.4	40.0	39.9	40.6
My instructors made the subject as interesting as possible	51.0	41.9	46.7	47.4	44.0	33.2	41.4	36.8	38.8	38.2
Assessment										
I knew how I was going to be assessed	39.5	35.1	38.5	39.0	41.9	43.0	50.8	45.6	48.1	45.4
The way I was assessed was a fair test of my skills	48.9	40.0	42.2	45.2	44.7	41.4	49.8	44.5	46.7	45.0
I was assessed at appropriate intervals	45.6	37.6	40.9	43.1	42.8	43.0	51.8	46.8	46.6	46.3
I received useful feedback on my assessment	46.1	39.3	42.1	43.0	41.0	36.2	44.5	39.7	42.3	40.3
The assessment was a good test of what I was taught	49.0	41.3	42.4	44.8	42.8	38.5	47.3	44.2	45.1	44.3
Generic skills and learning experiences										
My training developed my problem solving skills	35.1	28.3	25.9	30.2	26.4	44.6	51.4	47.0	47.4	44.3
My training helped me develop my ability to work as a team member	41.5	34.9	29.8	32.8	30.1	40.0	45.7	42.7	44.2	42.6
My training improved my skills in written communication	33.0	28.8	25.0	26.7	23.5	38.6	44.2	39.4	40.5	37.9
My training helped me to develop the ability to plan my own work	35.0	30.0	27.9	31.5	28.1	41.9	47.5	44.5	44.9	43.9
As a result of my training, I feel more confident about tackling unfamiliar problems	40.4	32.9	30.1	36.3	31.7	43.2	47.7	45.0	44.7	45.1
My training has made me more confident about my ability to learn	46.1	38.5	35.7	40.6	34.7	38.5	46.4	42.8	44.0	43.5
As a result of my training, I am more positive about achieving my goals	45.9	38.9	34.5	39.4	34.9	38.0	43.9	41.6	43.2	42.4
My training has helped me think about new opportunities in life	47.9	41.0	38.3	40.3	38.0	38.1	42.2	40.1	40.3	40.3
Overall I was satisfied with the quality of this training	**54.8**	**39.2**	**42.8**	**45.9**	**42.0**	**37.3**	**50.2**	**44.3**	**45.0**	**47.1**

(Continued on next page)

Table D.11 (continued)

	Strongly disagree and Disagree[b]				
	A	B	C	D	E
Teaching					
My instructors had a thorough knowledge of the subject content	3.3	2.6	2.8	1.7	2.4
My instructors provided opportunities to ask questions	3.6	2.4	2.7	1.7	2.1
My instructors treated me with respect	3.2	2.7	3.0	1.6	2.3
My instructors understood my learning needs	4.8	3.7	5.4	3.0	3.7
My instructors communicated the subject content effectively	4.0	3.2	4.7	2.4	3.9
My instructors made the subject as interesting as possible	6.1	5.0	5.6	3.7	5.3
Assessment					
I knew how I was going to be assessed	6.7	5.0	5.9	4.5	4.2
The way I was assessed was a fair test of my skills	4.0	3.4	4.7	2.5	3.5
I was assessed at appropriate intervals	4.9	3.3	4.3	3.5	3.6
I received useful feedback on my assessment	8.0	5.7	7.8	5.2	7.1
The assessment was a good test of what I was taught	4.7	3.7	4.9	3.0	4.1
Generic skills and learning experiences					
My training developed my problem solving skills	6.5	5.0	7.3	4.5	6.0
My training helped me develop my ability to work as a team member	5.5	5.3	8.2	5.4	6.7
My training improved my skills in written communication	9.9	8.3	12.1	8.5	11.1
My training helped me to develop the ability to plan my own work	7.7	6.2	8.1	5.7	7.2
As a result of my training, I feel more confident about tackling unfamiliar problems	5.2	5.1	7.2	4.5	5.8
My training has made me more confident about my ability to learn	4.5	4.4	6.2	3.6	5.4
As a result of my training, I am more positive about achieving my goals	4.1	4.6	6.3	3.9	5.2
My training has helped me think about new opportunities in life	3.7	4.7	6.0	4.9	5.4
Overall I was satisfied with the quality of this training	**3.8**	**3.9**	**5.6**	**3.7**	**4.6**

a Data capture the percentage of students who strongly agreed, agreed, disagreed or strongly disagreed with statements about different aspects of their training, by cohort. Graduates who did not respond to a question, or who responded that it was not relevant to them, are excluded from the calculations underlying these data.
b A – Indigenous Graduates; B – Graduates who speak a language other than English at home, excluding Indigenous Graduates; C – Graduates with disability; D – Graduates whose highest prior level of education was less than year 12, and were aged 20 or older; E – All graduates.

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Table D.12 **VET mod. comps' opinions of their training by equity group, publicly-funded VET sector, 2009**[a]

Per cent

	Strongly agree[b]					Agree[b]				
	A	B	C	D	E	A	B	C	D	E
Teaching										
My instructors had a thorough knowledge of the subject content	52.0	47.9	53.8	54.7	57.6	38.0	43.0	37.2	37.0	35.0
My instructors provided opportunities to ask questions	54.2	49.5	50.4	53.3	56.8	39.0	42.3	41.0	39.5	36.0
My instructors treated me with respect	61.3	55.3	54.1	57.2	59.8	31.9	35.8	35.5	35.3	32.9
My instructors understood my learning needs	44.5	37.2	40.6	43.1	43.5	40.6	44.7	38.9	41.5	39.5
My instructors communicated the subject content effectively	47.9	41.3	42.3	46.7	47.6	41.5	45.2	41.6	41.2	39.3
My instructors made the subject as interesting as possible	47.7	38.5	41.7	43.7	44.5	38.4	43.3	40.1	41.1	38.6
Assessment										
I knew how I was going to be assessed	30.3	29.0	31.0	31.3	34.6	45.5	50.1	46.6	49.5	46.6
The way I was assessed was a fair test of my skills	38.3	31.8	34.5	36.1	37.7	49.6	53.2	48.3	51.1	48.0
I was assessed at appropriate intervals	36.1	28.4	32.3	34.5	35.2	45.7	54.6	46.9	50.0	48.1
I received useful feedback on my assessment	34.9	31.0	32.4	33.7	33.9	46.1	46.8	43.1	44.8	42.9
The assessment was a good test of what I was taught	38.7	33.8	32.8	37.0	37.0	46.5	49.4	46.9	48.4	45.9
Generic skills and learning experiences										
My training developed my problem solving skills	27.7	20.7	19.0	21.1	37.0	45.6	48.2	44.4	46.6	45.9
My training helped me develop my ability to work as a team member	33.9	24.7	22.1	22.8	20.5	40.9	44.8	41.0	43.8	39.6
My training improved my skills in written communication	23.2	19.8	15.1	17.7	14.6	41.2	41.3	37.5	35.8	32.1
My training helped me to develop the ability to plan my own work	24.6	20.2	17.4	20.2	17.8	43.9	45.2	43.4	41.1	40.2
As a result of my training, I feel more confident about tackling unfamiliar problems	31.8	23.2	20.5	24.9	21.8	45.8	47.1	43.1	44.7	44.2
My training has made me more confident about my ability to learn	32.7	27.7	22.8	26.5	22.8	46.6	48.4	45.0	47.1	44.1
As a result of my training, I am more positive about achieving my goals	31.1	26.7	22.0	24.5	22.1	45.0	47.0	41.7	43.9	42.1
My training has helped me think about new opportunities in life	33.9	28.4	24.8	26.8	23.8	44.0	44.8	41.5	39.0	40.5
Overall I was satisfied with the quality of this training	**43.6**	**31.1**	**36.3**	**40.1**	**36.7**	**39.2**	**52.4**	**42.5**	**44.4**	**47.8**

Table D.12 (continued)

	Strongly disagree and Disagree[b]				
	A	B	C	D	E
Teaching					
My instructors had a thorough knowledge of the subject content	4.1	3.7	4.2	3.2	2.9
My instructors provided opportunities to ask questions	2.9	3.1	4.6	3.5	2.7
My instructors treated me with respect	2.2	3.3	4.9	2.9	2.6
My instructors understood my learning needs	5.5	5.8	11.3	6.0	5.6
My instructors communicated the subject content effectively	3.3	4.5	8.4	4.9	5.2
My instructors made the subject as interesting as possible	5.5	6.1	7.9	5.2	5.7
Assessment					
I knew how I was going to be assessed	8.5	7.0	8.8	6.9	5.4
The way I was assessed was a fair test of my skills	3.2	4.6	6.9	4.7	3.8
I was assessed at appropriate intervals	5.9	4.4	6.6	4.8	4.0
I received useful feedback on my assessment	7.7	8.0	10.5	8.0	7.5
The assessment was a good test of what I was taught	5.6	5.6	7.4	5.4	4.8
Generic skills and learning experiences					
My training developed my problem solving skills	8.3	8.9	12.9	10.8	8.9
My training helped me develop my ability to work as a team member	8.3	8.9	12.2	10.5	9.2
My training improved my skills in written communication	10.0	13.9	17.6	15.1	14.6
My training helped me to develop the ability to plan my own work	10.8	10.6	13.6	12.5	10.8
As a result of my training, I feel more confident about tackling unfamiliar problems	6.8	8.9	14.8	10.4	8.9
My training has made me more confident about my ability to learn	5.2	7.7	13.1	9.1	8.4
As a result of my training, I am more positive about achieving my goals	7.2	8.1	13.3	9.4	8.7
My training has helped me think about new opportunities in life	7.0	8.8	12.1	10.4	9.1
Overall I was satisfied with the quality of this training	**7.3**	**6.5**	**10.3**	**6.8**	**6.9**

a Data capture the percentage of students who strongly agreed, agreed, disagreed or strongly disagreed with statements about different aspects of their training, by cohort. Graduates who did not respond to a question, or who responded that it was not relevant to them, are excluded from the calculations underlying these data.
b A – Indigenous module completers; B – Module completers who speak a language other than English at home, excluding Indigenous module completers; C – Module completers with disability; D – Module completers whose highest prior level of education was less than year 12, and were aged 20 or older; E – All module completers.

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Table D.13 **Main reason for undertaking training, by equity group, publicly-funded VET sector, 2009**

Per cent

	Indigenous	Speaks a language other than English at home	Disability	Highest prior level of education less than Year 12[a]	All students
Employment related	**66.4**	**66.5**	**57.6**	**72.9**	**70.5**
To get a job	21.8	21.3	18.7	15.0	15.1
To develop my existing business	1.6	1.7	1.2	2.2	2.3
To start my own business	2.2	3.3	2.1	2.2	2.6
To try for a different career	6.8	7.2	8.8	7.5	7.5
To get a better job or promotion	3.3	5.8	3.0	4.1	4.6
It was a requirement of my job	16.2	14.6	12.8	26.6	21.2
I wanted extra skills for my job	14.4	12.6	11.1	15.2	17.3
Education related	**15.1**	**18.4**	**19.2**	**11.9**	**15.3**
To get into another course of study	2.5	5.9	3.8	2.0	3.3
To improve my general education skills	12.6	12.5	15.4	9.9	12.0
Personal or other reason	**9.5**	**7.1**	**12.9**	**7.8**	**7.0**
To get skills for community / voluntary work	2.8	1.4	4.2	2.3	2.2
To increase my confidence / self-esteem	4.8	4.4	6.4	3.7	2.5
Other reasons (please specify)	1.9	1.2	2.3	1.8	2.3
Not stated	**9.0**	**8.0**	**10.3**	**7.4**	**7.1**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

a Excludes people aged under 20.

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Table D.14 **Major reason for not continuing training of enrolment, by equity group, publicly-funded VET sector, 2009[a]**

Per cent

	Indigenous	Speaks a language other than English at home	Disability	Highest prior level of education less than Year 12[b]	All students
Employment related reasons	**21.7**	**24.0**	**13.2**	**26.2**	**24.9**
Changed jobs or started a new job	11.5	13.7	6.9	12.2	11.5
I lost my job	2.1	3.1	1.8	4.3	2.9
I learnt the skills I needed for my job	8.2	7.1	4.5	9.7	10.5
Training related reasons	**26.5**	**27.0**	**30.4**	**25.0**	**33.5**
I achieved my training goals	10.0	7.0	8.0	8.8	12.6
I started other training	4.5	4.7	3.7	1.7	3.4
The training no longer related to my plans	2.7	6.4	6.7	4.9	7.2
The training was not what I expected	4.6	5.8	9.0	7.3	7.5
The training timetable was not flexible enough	4.6	3.1	3.0	2.3	2.7
Personal reasons	**51.8**	**49.0**	**56.5**	**48.8**	**41.6**
I moved	5.5	2.7	2.0	2.5	2.9
Illness	7.3	6.8	25.0	10.6	5.9
Family reasons	15.9	14.0	6.7	13.2	8.1
Financial reasons	3.8	7.2	4.2	5.2	5.4
Too many pressures on my time	9.7	13.7	9.1	9.8	11.9
Other major reason	9.7	4.7	9.4	7.5	7.4
Not stated	**12.7**	**10.6**	**14.1**	**10.6**	**9.6**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

a Percentages calculated on the total excluding respondents who did not answer this question. **b** Excludes people aged under 20.

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Table D.15 **Achievement of main reason for study, by equity group, publicly-funded VET sector, 2009**
Per cent

	Graduates					Module completers				
	Indigenous	Speaks LOTE at home	Disability	Prior ed below Year 12[a]	Total	Indigenous	Speaks LOTE at home	Disability	Prior ed below Year 12[a]	Total
Yes	75.4	64.9	64.0	77.9	72.8	48.0	53.7	48.0	59.4	63.0
No	5.1	7.1	8.3	4.6	5.0	16.3	11.6	17.0	13.6	10.6
Partly	10.7	15.8	15.0	10.3	12.5	20.6	21.6	22.9	18.4	17.4
Do not know yet	7.8	11.2	11.7	6.3	8.5	13.8	11.7	10.4	7.5	7.1
Not stated	1.0	1.0	1.1	0.9	1.2	1.3	1.4	1.7	1.1	1.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

a Excludes people aged under 20.

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Table D.16 **VET students' views on recommendations they would make to others about their training, publicly-funded VET sector, 2009[a]**

	Graduates			Module completers		
	Yes	No	Not stated	Yes	No	Not stated
Would you recommend the training you have undertaken to others?	93.0	5.7	1.2	87.9	10.0	2.2
Would you recommend the institution where you undertook the training to others?	91.6	6.8	1.6	89.6	7.9	2.5

a Data were not collected from people who had studied with adult and community education for these questions.

Source: Productivity Commission estimates based on unpublished data from NCVER, *2009 Student Outcomes Survey*, NCVER, Adelaide.

Table D.17 **Employers who are satisfied with VET as a way of meeting their skill needs by type of training, 2005, 2007 and 2009[a]**

Year	Employers with vocational qualifications as a job requirement			Employers with apprentices/trainees			Employers using nationally recognised training[b]			Employers using unaccredited training		
	2005	2007	2009	2005	2007	2009	2005	2007	2009	2005	2007	2009
Per cent satisfied	76.8	80.8	83.4	79.1	83.3	83.2	80.3	80.5	85.8	92.1	92.5	95.3

a Satisfied as a way of meeting skill needs — 'satisfied' was rated as 4 or 5 on a 5-point scale. It includes employers who were satisfied and very satisfied. Dissatisfied was rated as 1 or 2 on a 5-point scale and includes employers who were dissatisfied or very dissatisfied. **b** Nationally recognised training is defined as nationally recognised training other than as part of an apprenticeship or traineeship. For the purposes of this survey, employers with apprenticeships and traineeships are reported separately.

Source: NCVER 2009, *Employers Use and Views of the VET System 2009*, www.ncver.edu.au/statistic/publications/2188.html (accessed 3 September).

D.2 Productivity of the VET system

This section explains the Commission's approach to assessing the performance of the VET system in terms of workforce productivity.

The Commission considered conducting an econometric analysis of the efficiency of the VET sector, with a focus on workforce characteristics. This analysis would have built upon a previous study of the efficiency of the TAFE sector conducted by the NCVER (Fieger et al. 2010) and would have provided a measure of the workforce's scope for productivity improvement. Due to data constraints and the timeframe of the study, however, this proposed research could not be performed. The Commission remains of the view that efficiency analysis which includes workforce characteristics would provide valuable insights for stakeholders and policy makers.

Developing a productivity indicator for VET

Productivity is a measure of the rate at which inputs (labour, capital and raw materials) are converted into output (which, in this case, is the delivery of education). In this analysis, productivity is calculated in terms of the ratio of inputs to outputs. Since inputs are measured in terms of expenditure, this is effectively a measure of the dollar cost per unit of output.

Measuring the productivity of the delivery of services by the non-market sector — as in the public provision of education — is a difficult task due to the absence of prices and the complication of assessing the quality of services being provided. Statistical agencies and other researchers have worked towards developing methods to appropriately measure the output of publicly-provided services, including methods to incorporate changes in quality. Reviews have been conducted by the OECD (2001 and 2008b) and the UK Office of National Statistics (ONS) (2005) (published as the Atkinson Review).

The Commission considers that labour as an input is ideally measured by the total number of hours worked, as is advised by the OECD (2001 and 2008b) and the ONS (2005). This measure is in preference to the total number of workers, which does not account for variations in their average hours. If possible, the output of differently-skilled workers should be weighted to reflect their respective skill level. This can be represented by their occupational rank, pay level, experience or qualifications.

Input measures are often specified in terms of expenditure rather than volume. Expenditure variables generate an indirect measurement of productivity, because they effectively represent the productivity of government spending, rather than the productivity of the input (Kimbugwe et al. 2009). These measures can be converted to volume terms, when deflated to remove the effect of price fluctuations.

Some potential measures of inputs and outputs that apply to VET delivery, as recommended or applied by various researchers in the field, are listed in table D.18 (Ayoubkhani et al. 2010; Kimbugwe et al. 2009; OECD 2001, 2008b; O'Mahony and Stevens 2009; UK ONS 2005). While the number of possible measures of outputs and inputs is potentially large, the choice of variables in the Commission's analysis was largely determined by data availability.

Table D.18   **List of possible VET inputs and output measures**

Indicator
Measures of input volume
Number of teaching hours delivered
Number of teaching hours paid
Number of full-time equivalent staff[a]
Expenditure on staff [a] (including wages, salaries, other remuneration and training courses)
Expenditure on intermediate goods and services (including teaching aids, stationery and utilities)
Expenditure on capital (including IT equipment and buildings)
Measures of input quality
Teachers' qualification levels
Student survey responses on their satisfaction with teaching quality
Student–teacher ratios or class sizes
Measure of output volume
Number of hours delivered
Number of students in attendance
Number of full-time-equivalent students enrolled
Measures of output quality
Level of education delivered
Wage premium associated with the level of education delivered
Students' exam grades or pass rates
Students' employment outcomes
Students survey responses on their satisfaction with their course

a When possible, data relating to staff should be disaggregated and categorised to reflect their type (for example, teaching or support staff) and quality (for example, occupation, qualification level, experience).

Ideally, both the volume and quality of inputs and outputs should be captured in a productivity indicator, since it is possible that providers make a trade-off between these two aspects of delivery. That is, with a given amount of resources, an increase in the volume of training delivered might come at the expense of the quality (or vice versa). On the other hand, it is possible that expansions in output bring about

improvements in quality. That is, larger-scale providers might experience economies of scale, making it more affordable for them to invest in the professional development of their staff and deliver better quality training.

Both volume and quality can be captured in a productivity indicator when measures of volume are 'weighted' by measures of quality.

Previous studies of workforce productivity

In the field of education, previous studies of labour productivity reviewed by the Commission demonstrated the methods of measurement described above, although they generally pertained to the whole of the education sector, rather than to VET only.

The ONS measured the productivity growth rate of the UK education sector from 1996 to 2008 (Ayoubkhani et al. 2010; Baird et al. 2010; Kimbugwe et al. 2009). Input was measured by deflated expenditure on labour (including wages and teacher training courses), intermediate goods and services (including teaching aids, books, stationery, utilities and building maintenance) and capital (including IT equipment and buildings). Output was measured by the number of full-time-equivalent students, adjusted for quality using student attendance rates and exam scores. On finding that the productivity of the sector grew by an average of two percentage points annually during the time period under analysis, the ONS studies attributed this growth, at least in part, to improvements in both the sector's output quality (school attainment rates) and a partial measure of output (attendance rates). These improvements were sufficient to offset the effects of the increase in its inputs (number of support staff) and reduction in the raw output measure (number of students).

Highlighting the importance of adjusting for the quality of inputs and outputs, the ONS studies observed a large difference between the adjusted and unadjusted growth rates. The authors also highlighted the need to acknowledge other changes that were outside of the scope of the analysis that could affect the productivity of the sector, such as changes in education policy, population composition and the number of education institutions.

A different approach to quality adjustment was adopted by O'Mahony and Stevens (2009) in their measurement of the productivity growth rate of the publicly-funded education sectors of the United States and the United Kingdom from 1979 to 2002. Inputs and output were measured by the number of teaching hours delivered and the number of students enrolled, respectively. To adjust for quality, student enrolments were weighted by the wage premium associated with each level of educational

attainment. This wage premium represented the 'market value' of the education delivered. The results of the study focused on comparing the two countries. The UK education sector, starting from a lower base, displayed faster rates of productivity growth to eventually catch up to the United States. The analysis attributed the high growth rates in the United Kingdom to an expansion of the higher education sector and quality improvements.

Variable construction and data sources

This section explains the method of variable construction and the data sources used by the Commission to estimate the workforce productivity rates of Australia's publicly-funded VET sector from 2005 to 2009.

Inputs

Input was measured by real expenditure on employees. This included expenditure on salaries, wages, overtime, allowances, superannuation, payroll tax and other salary or wage-related costs. The data referred to expenditure by the main training authority or training department within each state and territory, their public training providers and the Department of Education Employment and Workplace Relations (DEEWR). With a focus on workforce productivity, labour was the only type of input included.

Due to limited data availability, only one method was applied to adjust input for its quality. The quality of training staff was represented by students' opinions of their instructors using data collected by student satisfaction surveys. Students rated their instructor on a range of aspects relating to teaching and assessment, namely, how well their instructors: knew the subject content; offered opportunities for students to ask questions; treated students with respect; understood their students' learning needs; communicated effectively; made the subject interesting; explained assessment methods; assessed fairly; assessed at appropriate time intervals; gave useful feedback on assessment; and designed assessment to suitably test the material taught.

Based on a 5-point Likert scale, students were asked to rate their level of agreement with a series of statements that described their instructors' teaching and assessment practices. Using these data, the Commission constructed an index which averaged students' responses across all survey items, and was standardised across the years to achieve a common footing.

Outputs

In separate calculations, two measures of output volume were used: hours of delivery and the number of subject (or module) enrolments. In the context of VET, it was considered useful to adopt both types of outputs, since the number of hours of delivery can vary widely across different subjects. To adjust for quality, the volume of output was weighted by three different indices.

First, output quality was represented by students' subject results. The number of 'passes' was computed as a ratio to the number of 'fails' or 'withdrawals'. (Both fails and withdrawals were counted collectively because the conditions in which students are eligible to withdraw from a subject — as an alternative outcome to a fail — can differ between providers, largely driven by jurisdictional settings). The value of the ratio was standardised across the different years.

Second, the quality of output was represented by students' employment outcomes, in terms of whether students moved to a higher-skilled or lower-skilled occupation as a result of undertaking their training. Students were assigned a larger weight if they improved their occupational skill level, a smaller weight if they decreased in their skill level, or a neutral weight if there was no change.

A third method represented quality by the average level of qualification delivered, where each level of qualification was weighted according to its labour market returns (as per O'Mahony and Stevens 2009). This method converted output from a pure volume measure into a market-valued dollar measure. The result is a measure of output that comes closest to that used in traditional productivity calculations undertaken routinely for the market sector. Market returns were represented by the wage premium associated with each level of education attainment. Estimates of the wage premiums were drawn from previous studies (Lee and Coelli 2010a). Further details are provided below.

Details of earning premiums

Adapted from the findings of Lee and Coelli (2010a), the values of the earning premiums used in the VET workforce productivity estimates are listed in table D.19. Lee and Coelli used the ABS Survey of Education and Training (SET) dataset for intermittent years between 1993 and 2005. Even though the Commission's estimation refers to the years 2005 to 2009, Lee and Coelli found that the relativities between qualification levels were stable over time.

Table D.19 **Earning premiums for VET qualifications[a]**

Qualification level	Premium	Significance	Number of observations
Certificate I/II	5.14	not significant	633
Certificate III/IV	11.11	***	2 040
Advanced Diploma / Diploma	24.77	***	384
Bachelor degree or higher	38.75	***	256

a Premiums represent the percentage increase in weekly earnings gained by holding a VET-level qualification relative to not completing Year 12. The premiums for men and women were estimated separately, but a weighted average is presented here. The earning premiums exclude the potential premiums gained from completion of Year 12 prior to attaining a VET qualification.. *** Significant at the 0.1 per cent level.

Sources: Adapted from Lee and Coelli (2010a).

Applying the quality-adjustment weights

Each of the four quality-adjustment methods generated an 'index' value for the quality of output or input for each year of the data. These indices were applied as multiplicative weights for the volume measures of outputs and inputs, in the calculation of the input-output ratio.

By construction, some methods of quality-adjustment generated a larger weight than others, biasing the calculation of the productivity level and growth rate. To control for this bias, each one of the indices — after being computed individually — was standardised relative to the average of all of the indices for the same year.

Data sources

Due to data availability, the Commission's estimations were limited to publicly-funded VET only, and for the years 2005 to 2009.

Data on expenditure were sourced from the *Australian Vocational Education and Training Statistics: Financial information* (NCVER 2009d). Expenditure data were deflated using the implicit price deflator for expenditure on gross domestic product by state and local government (ABS 2010a). The expenditure figures included employee costs at TAFE institutes plus a proportion of the public payments made to non-TAFE (including private) providers.[1]

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1 Although public payments made to private providers of VET are not designated to cover employee costs, these payments contribute to the providers' total revenue pool, a fraction of which must be used to cover employee costs. The exact expenditure of non-TAFE providers on employees is unknown, but the expenditure break-down available for TAFE institutes suggests that providers allocate around 70 per cent of their total revenue to employee costs. This was the fraction of payments to non-TAFE providers that was added to the total expenditure figures.

Data on student outcomes and opinions were sourced from the *Student Outcomes Survey* (NCVER 2010m). Data on students' VET activity (subject enrolments, hours, subject results and qualification levels) were sourced from the *Historical Time Series of Vocational Education and Training in Australia from 1981* (NCVER 2010i).

The raw data and weights used to compute the productivity indicators are presented in table D.20. In each year from 2005 to 2009, nominal expenditure increased, real expenditure increased (except in 2006) and both measures of output increased. The quality indicators were mixed in their trends over time.

Productivity estimate results

Tables D.21 and D.22 present the productivity estimates measured in terms of cost per hour of delivery and per subject enrolment, respectively.

Table D.20 **Data for publicly-funded VET workforce productivity estimates**

	2005	2006	2007	2008	2009
Inputs and outputs					
Nominal expenditure ($million)	3 385	3 545	3 773	3 996	4 319
Real expenditure ($million)	4 072	4 023	4 089	4 099	4 249
Hours of delivery ('000s)	362 012	372 100	390 071	409 217	438 900
Number of subject enrolments ('000s)	11 714	12 031	12 341	12 965	13 596
Estimations measured by hours of delivery					
Adjustment for input quality — Student satisfaction index	0.9337	0.9393	0.9350	0.9333	0.9312
Adjustment for output quality — Subject result index	0.9156	0.9210	0.9224	0.9492	0.9569
Adjustment for output quality — Student employment outcome index	1.1036	1.0936	1.1068	1.0851	1.0817
Adjustment for output quality — Earnings-weighted qualification index	1.0471	1.0462	1.0358	1.0324	1.0302
Estimations measured by subject enrolments					
Adjustment for input quality — Student satisfaction index	0.9311	0.9384	0.9360	0.9397	0.9381
Adjustment for output quality — Subject result index	0.9333	0.9330	0.9284	0.9379	0.9439
Adjustment for output quality — Student employment outcome index	1.1005	1.0926	1.1080	1.0924	1.0897
Adjustment for output quality — Earnings-weighted qualification index	1.0351	1.0360	1.0275	1.0300	1.0283

Sources: ABS (2010a); NCVER (2009d and 2010i).

Table D.21 Real expenditure on employees per hour of publicly-funded VET delivery[a]

	2005	2006	2007	2008	2009	Average
Real expenditure per hour ($)						
Unadjusted for quality	11.25	10.81	10.48	10.02	9.68	10.45
Adjusted for input quality by student satisfaction[b]	10.50	10.15	9.80	9.35	9.02	9.76
Adjusted for output quality by subject result[c]	10.30	10.15	9.80	9.35	9.02	9.72
Adjusted for output quality by student employment outcome[d]	10.19	9.89	9.47	9.23	8.95	9.55
Adjusted for output quality by earnings-weighted qualification level[e]	10.74	10.33	10.12	9.70	9.40	10.06
Adjusted for both input quality and output quality[f]	10.28	9.95	9.59	9.14	8.81	9.56
Rate of change in real expenditure per hour (%)						
Unadjusted for quality	na	-3.9	-3.0	-4.4	-3.3	-3.7
Adjusted for input quality by student satisfaction[b]	na	-3.3	-3.5	-4.6	-3.6	-3.7
Adjusted for output quality by subject result[c]	na	-1.4	-3.5	-4.6	-3.6	-3.3
Adjusted for output quality by student employment outcome[d]	na	-3.0	-4.2	-2.5	-3.0	-3.2
Adjusted for output quality by earnings-weighted qualification level[e]	na	-3.8	-2.1	-4.1	-3.1	-3.3
Adjusted for both input quality and output quality[f]	na	-3.1	-3.6	-4.7	-3.6	-3.8

a Estimates refer to all publicly-funded VET, including publicly-funded VET delivered by private providers. Estimates refer to expenditure on salaries, wages, overtime, allowances, superannuation, payroll tax, and other salary- and wage-related costs. Real expenditure was calculated by using the implicit price deflator for final consumption expenditure by state and local government (ABS 2010a). **b** Input weighted by student satisfaction index. **c** Output weighted by subject result index. **d** Output weighted by student outcomes index. **e** Output weighted by earnings-weighted qualification index. **f** Input weighted by student satisfaction index and output weighted by the averaged value of the three output quality indices. **na** Not calculated.

Source: Productivity Commission estimates based on data in table D.20.

Table D.22   Real expenditure on employees per subject enrolment in publicly-funded VET[a]

	2005	2006	2007	2008	2009	Average
Real expenditure per subject enrolment ($)						
Unadjusted for quality	348	334	331	316	313	328
Adjusted for input quality by student satisfaction[b]	324	314	310	297	293	308
Adjusted for output quality by subject result[c]	324	312	308	296	295	307
Adjusted for output quality by student employment outcome[d]	383	365	367	345	341	360
Adjusted for output quality by earnings-weighted qualification level[e]	360	346	340	326	321	339
Adjusted for both input quality and output quality[f]	316	307	304	291	287	301
Rate of change in real expenditure per subject enrolment (%)						
Unadjusted for quality	na	-3.8	-0.9	-4.6	-1.1	-2.6
Adjusted for input quality by student satisfaction[b]	na	-3.1	-1.2	-4.2	-1.3	-2.4
Adjusted for output quality by subject result[c]	na	-3.8	-1.4	-3.6	-0.5	-2.3
Adjusted for output quality by student employment outcome[d]	na	-4.5	0.5	-5.9	-1.4	-2.8
Adjusted for output quality by earnings-weighted qualification level[e]	na	-3.7	-1.7	-4.3	-1.3	-2.8
Adjusted for both input quality and output quality[f]	na	-2.8	-1.3	-4.1	-1.4	-2.4

a Estimates refer to all publicly-funded VET, including publicly-funded VET delivered by private providers. Estimates refer to expenditure on salaries, wages, overtime, allowances, superannuation, payroll tax, and other salary- and wage-related costs. Real expenditure was calculated by using the implicit price deflator for final consumption expenditure by state and local government (ABS 2010a). **b** Input weighted by student satisfaction index. **c** Output weighted by subject result index. **d** Output weighted by student outcomes index. **e** Output weighted by earnings-weighted qualification index. **f** Input weighted by student satisfaction index and output weighted by the averaged value of the three output quality indices. **na** Not calculated.

Source: Productivity Commission estimates based on data in table D.20.

The Commission's estimation results point towards an ongoing improvement in workforce productivity in the delivery of publicly-funded VET from 2005 to 2009. This improvement does not appear to have come at the expense of the quality of training delivered.

Without adjusting for the quality of outputs or inputs, productivity in terms of cost per hour of delivery improved by an average of 3.7 per cent each year (table D.21), while cost per subject enrolment improved by an average of 2.6 per cent per year (table D.22) from 2005 to 2009.

Adjusting for the quality of inputs and outputs changes the rates of workforce productivity growth marginally, but does not change the overall pattern of improvement each year. When allowing for changes in the quality of input and outputs simultaneously, cost per hour improved by an average of 3.8 per cent each year (table D.21), while cost per subject enrolment averaged an improvement of 2.4 per cent each year (table D.22). These findings imply that any potential decline in quality of training delivered, as measured in this analysis, was more than offset by the overall increase in volume.

A number of caveats should be kept in mind when reading these findings. The Commission acknowledges that the estimated productivity level and growth rate, as presented above, are sensitive to the value of the weights applied in the quality-adjustment method (although moderate variations in the values of the weights were not found to alter the overall trend). It is also recognised that there are other ways in which the quality of training could be measured (such as changes in class size) which could lead to different results. Other factors that could also affect the estimated productivity of the VET workforce (such as changes in the student profile and delivery methods) which were not incorporated in this analysis.

The Commission acknowledges that labour productivity is only a partial indicator of the sector's productivity performance. A multifactor indicator, by comparison, would include other inputs to production, such as capital, and allow for interaction effects between inputs. In a highly labour-intensive sector such as education, however, using labour as the only input in a productivity indicator is still considered an informative measure of the sector's performance, as reflected in the widespread use of this indicator by the ABS.

Given these caveats, the estimates presented in this report should be interpreted as a general indication of workforce productivity in the publicly-funded VET sector over recent years, but not necessarily as a guide to the exact sources of the observed productivity growth.

E   Detailed institutional and government arrangements

This appendix provides contextual information about the Australian Vocational Education and Training (VET) sector. Section E.1 discusses the institutional context for VET. Section E.2 briefly summarises the recent policies of the states and territories.

E.1   Governance and regulation

The institutional framework covering the VET sector is complex, with distinct arrangements for governance, regulation and advice. These arrangements are made more complex by differences across states and territories.

Ministerial and departmental framework

Under the Australian Constitution, responsibility for VET lies with State and Territory Governments. However, over time, the Australian Government has come to play a much greater role through funding arrangements, regulation, and in some instances, direct program delivery (chapter 2). The involvement of multiple jurisdictions in the provision of VET requires cooperative action.

This cooperation is typically achieved through the Council of Australian Governments (COAG). On 29 November 2008, COAG endorsed the National Agreement for Skills and Workforce Development. This Agreement identifies the long term objectives of the Australian and State and Territory Governments in the areas of skills and workforce development, and delineates responsibilities and funding arrangements between the Australian Government and the jurisdictions.

Each State and Territory Government has a training authority or department that administers VET and is responsible (directly or indirectly) for allocating funds, registering training organisations and accrediting courses. The State Training Authorities (STAs) are accountable to their respective Ministers. These Ministers, together with the appropriate Australian Government Minister, collectively form the

Ministerial Council for Tertiary Education and Employment (MCTEE) (formerly the Ministerial Council for Vocational and Technical Education). Australian Government involvement in the VET sector is overseen by the Minister for Tertiary Education, Skills, Jobs and Workplace Relations. The Department of Education, Employment and Workplace Relations (DEEWR) is the Australian Government department that has oversight of the VET sector at a national level.

The MCTEE has overall coverage of the national training system, with the exception of VET-in-Schools (which is covered by the Ministerial Council for Education, Early Childhood Development and Youth Affairs). The MCTEE's responsibilities include strategic policy, priority setting, planning and performance, and key cross-sectoral issues impacting on the national training system, such as skills forecasting, workforce planning (including skills needs) and articulation between VET and higher education.

The MCTEE is supported by a range of advisory groups and support structures including the:

- National Senior Officials Committee (NSOC), which implements MCTEE decisions, drives national collaboration on training matters and monitors the effectiveness of the national training system. The Committee consists of the chief executive officers of the Australian and State and Territory government departments responsible for training, and is chaired by the Deputy Secretary of DEEWR

- National Industry Skills Committee, which provides high-level advice on workforce planning, future training priorities and other critical issues facing the training sector. Its membership comprises a cross-section of representatives from peak employer and employee bodies from a range of industries and locations

- National VET Equity Advisory Council, which provides advice to guide equity reform in the national training system. The membership includes people with disability, Indigenous Australians, refugees, homeless youth, and people from a non-English speaking background

- National Quality Council (NQC), which is a 14 person committee of the MCTEE seeking to provide quality assurance. It is required to report annually on the operation of the National Skills Framework.

National skills advisory framework

Australia also has a comprehensive institutional structure to inform the principal governing bodies of the VET sector about the skills needs of the economy.

Skills Australia is the main federal body of this nature. It is an independent statutory body that provides advice to the Minister for Tertiary Education, Skills, Jobs and Workplace Relations on Australia's current, emerging and future workforce skills and workforce development needs. It is supported by Industry Skills Councils (ISCs) that provide industry intelligence and advice. ISCs also develop Training Packages and aid the Australian Government in allocating places under the Productivity Places Program (chapter 4).

In addition to the federal architecture, each state and territory has industry training advisory bodies that provide jurisdiction-specific industry intelligence on skill requirements to each of the STAs (table E.1).

Table E.1   **State and Territory Industry Training Advisory Bodies (ITABs)**

State or Territory	Skills Advisory Bodies
New South Wales	11 ITABs
Victoria	16 ITABs
Queensland	5 Centres of Excellence and 5 Skills Alliances
South Australia	9 Industry Skills Boards
Western Australia	10 Industry Training Councils
Tasmania	3 geographically based Industry Liaison Officers
Northern Territory	6 Training Advisory Councils
ACT	1 Vocational Education and Training Advisory Group

Regulation and quality assurance arrangements

The National Skills Framework is the national regulatory framework which promotes quality and national consistency in terms of qualifications and the delivery of training. The three key elements are the Australian Quality Training Framework (AQTF), the Australian Qualifications Framework (AQF) and Training Packages.

The AQTF comprises national standards for the registration and auditing of Registered Training Organisations (RTOs), the accreditation of courses, and national standards for State and Territory registering authorities.

The NQC ensures national consistency in the application of AQTF standards. It also oversees the endorsement of Training Packages. The functions of the NQC, as established by the NQC Charter, include:

- reporting to the Ministerial Council on the operation of the National Skills Framework, including Training Packages, AQTF standards and other quality assurance arrangements

- advising Ministers on the endorsement of Training Packages

- recommending approaches to improve national consistency within the operation of the NSF

- fulfilling accountability requirements through providing an annual report on its operations to the Ministerial Council. (NQC 2011).

In 2011, a newly-formed National Standards Council (NSC) will assume the functions of the NQC as part of a broader standard-setting remit. This will include providing advice to the MCTEE on national standards for quality assurance, performance monitoring, reporting, risk, audit, review and renewal of providers' accreditation status, and accreditation of VET qualifications (COAG 2009c). The standards put forward by the NSC (if approved by the MCTEE) will be implemented by a national VET regulator (discussed below).

The AQF provides a comprehensive, nationally consistent framework for all qualifications in post-compulsory education and training. The Framework comprises:

- national guidelines for each of the current national qualifications issued in the senior secondary school, VET and higher education sectors

- policies and guidelines for articulation, credit transfer and recognition of prior learning

- a register of authorities empowered by governments to accredit qualifications

- a register of institutions authorised to issue qualifications

- protocols for issuing qualifications

- a governance structure for monitoring the implementation of the AQF and for advising Ministers, including recommendations for change (AQF Advisory Board 2010).

Qualifications that are issued in more than one sector (Diploma and Advanced Diploma) are equivalent qualifications, although they retain differences reflecting the different types of learning and assessment in use by each sector. In the VET sector, AQF qualifications are based on nationally endorsed competency standards. The competency standards are linked to AQF requirements during the process of developing and accrediting Training Packages. In the VET sector, RTOs have their courses accredited by the relevant State or Territory course accrediting body. This contrasts with the higher education sector where many of the institutions are empowered to self-accredit the courses they offer.

Responsibility for the AQF lies with the MCTEE. The AQF Council provides the MCTEE with advice on the AQF, to ensure that it is nationally and internationally robust and supports flexible cross-sector linkages and pathways (AQF Advisory board 2010).

A Training Package is an integrated set of nationally endorsed competency standards, assessment guidelines and AQF qualifications for a specific industry, industry sector, or enterprise. Training Packages aim to ensure the quality of the training product by ensuring the training material is relevant to industry requirements. Ideally, a Training Package describes the skills and knowledge needed to perform effectively in the workplace. Training Packages are developed by the relevant national ISC or, in some cases, by enterprises to meet the identified training needs of specific industries or industry sectors (IBSA 2008a).

A Training Package is comprised of three compulsory, endorsed components and support materials. The three compulsory endorsed components of a Training Package are:

- national competency standards — the skills and knowledge a person must be able to demonstrate at work. These are defined by industry and organised into combinations that form qualifications aligned with the AQF

- national qualifications — all qualifications (Certificate I, II, III, IV, Diploma, Advanced Diploma) for an industry and the units of competency required for each qualification. For example, the IT Training Package ICA05 includes 24 qualifications and 302 units of competency

- assessment guidelines — the requirements for an individual's performance to meet the competency standards. They are designed to ensure that judgments made by the people assessing the competence of an individual's performance are valid, reliable, fair and consistent (DEEWR 2011a).

Training Package support materials are designed to support the delivery and assessment of training and include, for example, learning strategies, assessment resources and professional development advice.

The only providers that can deliver nationally accredited content (usually that which is contained in the Training Packages) are RTOs. In order to become registered, training providers must meet AQTF standards. An RTO must renew its registration with the relevant State or Territory registering authority (table E.2) at least every five years. The registering authority can audit the RTO at any time during its period of registration. RTOs that operate across State or Territory borders have the option of having their registration and audit arrangements managed nationally by the National Audit and Registration Agency (NARA).

Table E.2 State and Territory registering and accrediting bodies

State or Territory	Registering and Accrediting Body
New South Wales	Vocational Education Training Accreditation Board
Victoria	Victorian Registration and Qualifications Authority
Queensland	Training and Employment Recognition Council
South Australia	Accreditation and Registration Board
Western Australia	Training Accreditation Council
Tasmania	Tasmanian Qualifications Authority
Northern Territory	Department of Employment Education and Training
ACT	Accreditation and Registration Council

NARA is managed by Technical and Vocational Education and Training (TVET) Australia. TVET Australia is a ministerial company owned by the Australian Government, State and Territory Ministers responsible for training. It was established to provide services to support the national training system.

The role of NARA will eventually be replaced by a new national VET regulator, which was endorsed in December 2009 by all jurisdictions except Victoria and Western Australia. The new regulator will be a Commonwealth statutory authority and will be responsible for the registration and auditing of RTOs and the accreditation of courses. The legislation and intergovernmental agreement needed to create the national regulator was expected to be in place from April 2011. It is envisaged that the National VET Regulator will be integrated with the Tertiary Education Quality and Standards Agency (TEQSA) in 2013 (TVET 2010).

Information and research

A number of organisations are involved in developing and providing data, analyses of trends and research for the purposes of informing the strategic direction and policy agenda of the VET system. The Australian and State and Territory Governments are all engaged in research of this kind, as are the ISCs. However, the key body responsible for collecting, managing, analysing, evaluating and communicating research and statistics about VET on a national scale is the National Centre for Vocational Education Research (NCVER). The NCVER is a not-for-profit company owned by the Australian, State and Territory Government Ministers responsible for training. Its key areas of activity are:

- undertaking a strategic program of VET research, including the management of the national VET research competitive grants program and the analytical services of the Longitudinal Surveys of Australian Youth

- collecting and analysing national VET statistics and survey data

- disseminating the results of research and data analysis, and making available research findings on VET from around the world through the VOCED research database

- building links with similar international organisations to foster comparative analysis and collaborate on issues of mutual interest, and undertaking commercial consultancies (NCVER 2010a, 2010h).

The NCVER also provides secretariat services to the National Training Statistics Committee (NTSC) — a committee of NSOC which aims to improve data quality. The conventions for data reporting are known as the Australian Vocational Education and Training Management Information Statistical Standard, and apply to all RTOs that receive government funding for VET training.

Regulation of delivery to international students

The delivery of VET to international students is regulated through the interaction of the *Education Services for Overseas Students (ESOS)Act 2000* (Cwlth) and various pieces of State and Territory governments' legislation for the registration of providers and accreditation of courses. DEEWR manages the ESOS and can impose sanctions against an RTO, including suspending or cancelling the right of the education institution to teach overseas students. Breaching the laws might also be a criminal offence attracting fines or imprisonment.

Any RTO that recruits, enrols or teaches overseas students must be registered on the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS). To become CRICOS-registered, a provider must demonstrate that it complies with ESOS by meeting the requirements of the National Code of Practice for Registration Authorities and Providers of Education and Training to Overseas Students (National Code) (DEEWR 2007). The National Code is a set of nationally consistent standards that governs the protection of overseas students and the delivery of courses to those students. It complements the existing national quality assurance frameworks including the AQTF.

E.2 State and Territory approaches to VET

This section briefly summarises the policy approaches to the VET sector across states and territories. An overview of recent policy trends, and particularly moves to introduce greater competition and contestability into the VET sector, is contained in chapter 4.

Delivering Skills for New South Wales — Strategic Plan for VET 2008–2010

The current VET strategic plan in New South Wales ran until December 2010, and a new strategic plan is under development to run until the end of 2013. The plan follows a projection by an Independent Pricing and Review Tribunal inquiry into skills development that an increase in training participation of 2.5 per cent annually over the next 20 years was needed. The plan seeks to increase the number of working age people in New South Wales participating in education and training through their life to 16 per cent of the population. It also seeks to shift training towards higher vocational levels to meet the increasing skill demands in higher-level occupations.

Three policy principles underline the strategic plan:

- Public investment must be highly targeted to areas (industries, population groups and sub-regions) of greatest need and impact.

- Industry and individual investment must be built up through partnerships.

- New models must deliver the right skills to the right people at the right time.

Under the plan, the NSW Government will fund an additional 33 000 training places over four years. Training places are guaranteed for those up to 18 years of age who did not complete Year 12 and who have not yet got a job. Older workers wishing to upskill and people seeking to return to the workforce are also key target groups.

The plan provides for greater industry input, with input from the NSW Skills Council, the Industry Skills Forum, peak industry and employer bodies, and employee associations. ITABs provide industry-specific training advice.

The NSW Government also seeks to increase the amount of training delivered via increased competition, and to increase employer investment in accredited training. Cooperation between training providers, employers and the NSW Government is seen as the best method to increase the level of training in New South Wales (DET and BVET NSW 2008).

Securing Jobs for Your Future — Skills for Victoria

Changes to Victoria's VET system aim to enable Victorians to access government subsidised training from a wider range of providers and to ensure that training delivery is more demand-responsive and delivered on a more competitive basis.

It is intended that under the new arrangements, being phased in between 2009 and 2012, government funding for subsidised training will take place in response to student demand rather than by fixed allocation. Whereas in the past selected providers were allocated a quota of funds for the delivery of training, funding will now follow the study choices of eligible students (as long as the student's chosen provider is contracted with Skills Victoria, and that provider is able to offer the qualification sought) (DIIRD 2010).

The contribution made by individuals and businesses via tuition fees is intended to vary more in line with the expected mix of public and private benefits associated with the training. There will be greater flexibility in fee charging to allow for competition on price. Tuition fees will be determined at the individual provider level up to a specified cap, with flexibility to offer programs at lower prices. This is designed to encourage providers to develop value-for-money training options and to promote downward pressure on fees.

Under the new arrangements, for people aged 20 and over, with (recently extended) exceptions for critical skill shortages or significantly disadvantaged workers, government subsidised places will be restricted to training at the foundation skills level and for qualifications higher than the qualifications already held by individuals.

The Victorian Government is working with Technical and Further Education (TAFE) institutions regarding changes to TAFE governance, seeking to ensure that they have the flexibility they need to maintain their viability in the new, more competitive environment (DIIRD 2008).

Queensland Skills Plan 2008

The current VET strategic plan in Queensland, *Queensland Skills Plan 2008,* ran until 2010, and a new plan is under development. This plan — built on an earlier plan announced in 2006 — seeks to alleviate future skill shortages and improve the quality of training provided. Specific features of the plan include:

- the creation of an additional 17 000 trade training places over the period 2006 to 2010

- the introduction of shorter durations for many apprenticeships

- the creation of specialised institutes such as the Southbank Institute of Technology and a new trades and technician training institute, SkillsTech Australia

- the introduction of third party access arrangements for TAFE facilities

- longer-term contracts with training providers

- a major capital works program across the state including Brisbane, Mackay, Townsville and Cairns

- the introduction of lead institutes across TAFE to create better links with industry

- waiving of tuition fees for school students undertaking an initial Certificate III and above qualification as part of their senior studies

- a targeted increase of 14 000 addition training places available each year in Certificate IV and above programs by 2010.

Training WA — Planning for the Future 2009–2018

Training WA is the blueprint for the WA Government's investment in the WA training system between 2009 and 2018. It seeks to increase training participation and skills development by providing people with the skills to make the transition into employment, and increase the skills of the existing workforce in line with regional and industry requirements. It aims to achieve a flexible and innovative training system, with more training to be delivered in the workplace, at more flexible times in the classroom, online and away from the classroom where appropriate.

The use of user choice purchasing arrangements will be further expanded by opening new areas to competition. Governance arrangements for TAFE institutes will be changed to better allow them to adjust to the new environment. The commercial guidelines governing TAFE will be changed to remove unnecessary regulation and free up TAFE college operations.

The major goals under the blueprint are for:

- an increase of 17 500 working aged Western Australians undertaking accredited training by 2012

- an increase in the proportion of workplace and/or flexible training delivery from 27 per cent to 40 per cent from 2008 to 2012 (that is, an increase in the proportion of VET module enrolments delivered outside of face to face delivery)

- 17 000 more WA enrolments in high level training (Certificate IV and above) by 2012

- 5000 more apprentices and trainees to be in training by 2012

- 30 000 Indigenous Australians to be enrolled in employment related training from 2009 to 2012

- the proportion of training delivery allocated through competitive processes to increase from 27 per cent to 50 per cent between 2008 and 2012

- employer satisfaction with training to increase from 72 per cent to 85 per cent by 2012.

The blueprint also includes a commitment by the Government to allocate $17.6 million over three years to provide a guaranteed training place for all unemployed Western Australians, with fee exemptions for their training (WA DET 2009).

Skills For All — The strategic direction for vocational education and training in South Australia 2011–2014

South Australia, like Victoria, has committed to reforms designed to make the VET system more demand-driven and competitive, and to vary fees more in line with the expected mix of public and private benefits associated with the training.

One major change under the proposed reforms is that funding will be provided to all students over 16 years of age, with the amount of funding linked to the level of qualification sought. Clients (individual students and employers) will be able to choose their provider, so that public subsidies for VET are allocated in accordance with demand. Eventually, this subsidy will be fully contestable. There will be some capping of subsidised places in areas of high demand and subsidies will be highest for those qualifications that provide foundation and generic skills. Student fees will be higher for higher qualification levels, since they provide the opportunity to earn higher incomes. The Department of Further Education, Employment, Science and Technology (DFEEST) will identify 'priority qualifications', important to meeting identified skill needs, which will receive larger (up to 100 per cent) subsidies (DFEEST 2011).

The reforms are designed to significantly reduce current barriers for young people choosing to move into VET once the South Australian Certificate of Education is completed, and to introduce consistent policy and funding arrangements between the VET and university sectors (DFEEST 2010).

Governance arrangements for TAFE SA will be reformed to enable it to compete effectively in the new market-based system, and to increase its flexibility and autonomy (DFEEST 2010). In particular, there is to be separation of purchaser and provider. DFEEST will remain the purchaser, but by July 2012, government provision will be overseen by TAFE SA, which will be set up as a separate, statutory authority. Each of the current publicly-owned TAFE institutions (Adelaide North, Adelaide South and Regional) will become subsidiaries to TAFE SA.

TAFE SA will be funded to provide community service obligations, which will be identified and implemented in 2011. (Chapter 4 discusses community service obligations.)

The Tasmanian Skills Strategy 2008–2015

The *Tasmanian Skills Strategy* seeks to ensure that: students are equipped with the skills for lifetime participation in employment and the community; employers are provided with the skills they require; and service providers have the capacity to anticipate and meet learner and employer needs.

Specific goals of the strategy are to increase:

- Year 12 completions or equivalent by 5 percentage points per annum

- the proportion of 15–64 year olds with Certificate III and above skills/ qualifications to 43 per cent by 2010 and 49 per cent by 2015

- the proportion of 15–64 year olds enrolled in education or training to 19 per cent by 2010 and 20 per cent by 2015.

Since the end of 2007, all students completing Year 10 in Tasmania have been required to continue to participate in education and training until they turn 17 or achieve a Certificate III. Three new organisations have been designed to provide more options for students. The Tasmanian Academy is intended to focus on the needs of Year 11 and 12 students seeking university entrance. The Tasmanian Polytechnic will focus on applied learning, with a vocational pathway. The Tasmanian Skills Institute will focus on skills development for employees in enterprises, in line with their enterprise's skills needs.

As part of the strategy, Skills Tasmania is to do research, analysis and program development to identify the skills required by industry, to establish regional profiles of skills needs and to pilot programs designed to encourage sustainable, competitive and innovative practices.

ACT Skills Future 2008

The ACT Government has announced a number of measures under its *ACT Skills Future* plan to deal with skill shortages, including encouraging skilled migration, developing new attraction and retention strategies for the ACT public service and investing to improve human capital.

The steps likely to impact most on the VET sector and its workforce include:

- building networks between industry groups and training organisations

- extending training to casuals and part time employees, and lobbying the Australian Government for the extension of training subsidies

- facilitating the development of shorter courses in licensed and non-licensed occupations

- supporting the group training of apprentices

- working to speed up the presentation of skilled persons to the workplace through accelerated apprenticeships, restructuring vocational systems towards higher qualification levels, better use of Recognition of Prior Learning, and up-skilling or retraining of existing workers

- increased investment in apprenticeships and traineeships of $6.2 million over four years in the 2007-08 Budget, and an additional $4.2 million in the 2008-09 Budget

- the adoption of private sector attraction and retention strategies, including improved access to childcare (ACT Chief Minister's Department 2008).

Jobs NT 2010–2012

The NT Government's *Jobs NT 2010–2012* replaces the Jobs Plans previously released by the NT Government in 2003. The new initiative commits $59 million over three years to increase the uptake of apprentices and trainees, with a target of 10 000 commencements over four years. The funding includes $42 million over three years of user-choice funding (to be provided to RTOs to deliver structured training and assessment for apprentices and trainees) and, in partnership with the Australian Government, $10.5 million in funding for Australian Apprenticeships NT. This latter funding will provide support to employers and apprentices and trainees and to assist with travel and accommodation.

Under *Jobs NT 2010–2012*, senior secondary students fulfilling base requirements such as attendance, participation and good behaviour will be provided with a guaranteed pathway to work or to further education or training. The NT Government aims for a five per cent increase in the number of young Territorians achieving a Year 12 or equivalent Certificate II qualification by 2012.

F   Overseas and other models

F.1   Introduction

This study's Terms of Reference ask the Commission to include in its analysis 'a comparative element, both in terms of comparing the education and training workforce to other community/public service professions … and of relevant international comparisons'. Analysis of this kind can be problematic. Differences in the governance, legal and institutional environments across nations or sectors make close comparisons difficult. International comparisons must also contend with differences in definitions and measurement, as well as differences in the social, cultural and economic makeup of each nation. Nonetheless, the policy experimentation conducted in other countries, and in other sectors in Australia, can provide valuable insights applicable to the Vocational Education and Training (VET) sector.

This appendix does not aim to present a comprehensive treatment of the subject matter. Rather, it concentrates on a few case studies, selected on the basis of feedback and advice received by the Commission during consultations for this study. The studies illustrate alternative models for organising and regulating the VET workforce and other professional workforces. The aim of examining these models is to inform the analysis undertaken in the body of this report. After some consideration of cross-country evidence from the European Union (EU) and the Organisation for Economic Co-operation and Development (OECD), further attention is given to the VET sectors of the United Kingdom, United States, Germany and New Zealand. These nations each have quite different systems, from each other and from Australia, but all have experienced recent VET sector developments pertinent to this study. In addition to these international case studies, other case studies are drawn from Australia's other education sectors and the accountancy sector.

F.2 Cross country evidence from the European Union and the OECD

Recent reports from the European Centre for the Development of Vocational Training (Cedefop) and the OECD have suggested that many developed economies face similar issues regarding their VET workforce. These cross-country reports provide some comparative elements, as well as a description of the broad policy issues that surround the workforce in these nations.

Modernising Vocational Education and Training

The Cedefop series of reports, *Modernising Vocational Education and Training*, provides a review of current research into the major aspects of EU VET policy priorities. Volume two of this series investigates the current workforce directions (Parsons et al. 2009). As well as comparing workforce characteristics across Europe, it examines and compares recent policy developments in the area. The report notes divergent arrangements pertaining to the workforce in European nations, but also common themes in policy development across the countries examined.

The report makes a common distinction between initial VET (IVET) and continuing VET (CVET), where IVET is entry-level vocational education and work-based training, and CVET is aimed at those seeking to upskill, re-enter the workforce or make a career change. IVET is primarily concerned with younger people and CVET relates mainly to adults. This is a distinction that is not made in the Australian VET system and one that causes complications in assessing policies aimed at practitioners. For example, many EU teachers who operate in IVET also teach in CVET (although CVET teachers work less commonly in IVET) (Parsons et al. 2009).

Despite these complications, the report provides an overview of the main VET workforce policy directions in the EU. For example it finds that:

- outside of Germany, the Netherlands, Austria and a few other countries where the apprenticeship system underpins IVET, most Member States (new and established) do not regulate enterprise trainer qualification requirements

- all European nations have at least some provision for continued professional development of teachers in IVET but, for the majority of countries, this takes the form of voluntary participation in self-development activities.

The report also compares the initial training requirements for both IVET and CVET teachers across countries of the EU.

IVET

Although European nations have differing educational requirements relating to IVET teachers, most require degree-level qualifications (table F.1). Only Malta has no general educational requirement for IVET teachers and tutors, and a minority of EU nations have a general education requirement at sub-degree level (typically, this does not include any pedagogical training). In general, nations with no or sub-degree requirements have VET systems that have traditionally emphasised the importance of teachers holding vocational expertise (Parsons et al. 2009).

In the majority of Member States, a distinction is made between vocational teachers who teach theoretical knowledge, and teachers of practicum or tutors for specific skills. Many European nations have a general education requirement set at first-degree level for teachers of theory in IVET, but not usually for practical teaching posts (table F.1). The degree requirement commonly includes pedagogical training (typically of two to four semesters) (Parsons et al. 2009).

Where VET can be delivered through approved non-public institutions, such as community and voluntary sector organisations, or commercial organisations, there is greater diversity in practice and requirements. In these nations (Ireland, the Netherlands, Finland, the United Kingdom), deregulation of the VET market has made non-government provision more common. Nonetheless, in general, there is an evolving expectation that VET teachers will be qualified before entry into practice. Increasingly, although not universally, there is a requirement for pedagogical qualifications as well as subject expertise as a part of this expectation (Parsons et al. 2009).

CVET

For many EU nations, there is no distinction between educational requirements for IVET and CVET teachers (tables F.1 and F.2). However, there is much less information available regarding distinctive requirements for teachers and tutors operating specifically in CVET and, in general, policy related to teacher and trainer qualifications is solely aimed at IVET practitioners. Of the countries that have specific degree requirements for CVET, very few also require pedagogical training. In some nations (Denmark, Estonia, Ireland, Lithuania and the Netherlands), CVET teaching practitioners are able to hold lower levels of general educational attainment than their IVET counterparts.

In some countries (Cyprus and the United Kingdom), qualification requirements for those engaged in CVET teaching are relatively new (Parsons et al. 2009).

Table F.1 Initial qualification requirements for IVET teachers

	Specified entry qualification[a]		Specified length for post-qualification work experience	Specified attainment of post-qualified pedagogy course	Other
	Sub-degree	Degree			
Belgium		✓			
Czech Republic	✓b	✓	optional	✓	
Denmark		✓	optional	✓	
Germany	✓	✓	✓	✓	
Estonia	✓		✓	✓	
Ireland		✓		✓	✓c
Greece		✓d			✓d
Spain	✓	✓			
France					✓e
Italy	✓	✓		✓	✓
Cyprus	✓		✓	✓f	
Latvia	✓			✓	
Lithuania	✓	✓ g			
Luxembourg		✓			✓
Hungary	✓				
Malta				optional	
Netherlands		✓			✓
Austria	✓	✓	✓	✓	✓
Poland	✓b	✓			
Portugal	✓	✓			
Slovenia	✓b	✓			✓
Slovakia	✓b	✓			✓
Finland		✓h	variable	✓	
Sweden	✓	✓			✓
United Kingdom	✓			✓	✓

a A tick in both sub-degree and degree categories indicates differing requirements for teachers who teach theoretical knowledge and those that teach practicum. **b** Limited to teachers of practical vocational subjects or to subjects without first degree/masters provision. **c** Supplementary registration with a regulatory professional council. **d** Includes first degree equivalent level qualifications for civil list and related examinations for teachers/tutors. **e** Entry into the public vocational sector requires at least degree-level vocational qualifications, supplemented by professional, theoretical and practical study at tertiary level. Workplace trainers and assessors, or those working for private providers, face no particular vocational or teaching requirements. **f** No prior qualification required, but applicant must be approved by an education service committee, and be listed on the Cyprus rank lists for appointment to schools/colleges. **g** Only for general education (non-vocational) teaching in IVET programmes. **h** Includes integrated subject/pedagogic courses. ✓ indicates a requirement.

Source: Adapted from Parsons et al. (2009).

Table F.2 Initial qualification requirements for CVET teachers

	Specified entry qualification[a]		Specified length for post-qualification work experience	Specified attainment of post-qualified pedagogy course	Other
	Sub-degree	Degree			
Belgium					
Czech Republic	✓b	✓		✓	
Denmark					
Germany	✓	✓			
Estonia					
Ireland					
Greece		✓c			✓d
Spain					✓
France					✓e
Italy					
Cyprus	✓f		✓	✓	
Latvia	✓			✓	
Lithuania					
Luxembourg					✓
Hungary	✓				
Malta				optional	
Netherlands	✓				
Austria					✓
Poland	✓ b	✓			
Portugal					✓
Slovenia	✓b	✓			✓
Slovakia	✓b	✓			✓
Finland		✓g	variable	✓	
Sweden	✓				
United Kingdom	✓			✓	

a A tick in both sub-degree and degree categories indicates differing requirements for teachers who teach theoretical knowledge and those who teach practicum. **b** Limited to teachers of practical vocational subjects or to subjects without first degree/masters provision. **c** Includes first degree equivalent level qualifications for civil list and related examinations for teachers/tutors. **d** Supplementary registration with regulatory professional council. **e** Entry into the public vocational sector requires at least degree-level vocational qualifications, supplemented by professional, theoretical and practical study at tertiary level. Workplace trainers and assessors, or those working for private providers, face no particular vocational or teaching requirements. **f** No prior qualification required, but applicant must be approved by education service committee, and be listed on the Cyprus rank lists for appointment to schools/colleges. **g** Includes integrated subject/pedagogic courses. ✓ indicates a requirement.

Source: Adapted from Parsons et al. (2009).

Learning for Jobs

The OECD report, *Learning for Jobs* (OECD 2010), indicated that many developed economies face similar issues regarding the VET workforce. The main issues identified by the OECD were:

- a shortage of teachers and trainers in vocational programs as the current workforce approaches retirement age

- some trainers who have insufficient workplace preparation

- in-company trainers who have insufficient preparation including educational preparation

- trainers who need both educational capability and workplace experience to be effective.

The suggested responses to these issues are broad in nature, as they pertain to OECD countries in general. In particular, the report suggested that OECD countries:

- recruit sufficient numbers of teachers and trainers for VET institutions, and ensure that this workforce is well-acquainted with the needs of industry

- promote flexible pathways of recruitment and make it easier for those with industry skills to become part of the workforce of VET institutions

- provide appropriate educational preparation for in-firm trainers

- encourage partnerships between VET and industry, so that VET teachers spend time in industry to update their knowledge, and in-firm trainers spend some time in VET institutions to enhance their educational capability.

F.3   VET workforce in the United Kingdom

The United Kingdom has a large (over 10 000 providers) and diverse VET sector, comprising public providers (such as further education [FE] colleges, school sixth forms and sixth-form colleges) and private providers (such as tertiary colleges, specialist colleges and colleges that cater for people with learning difficulties or disability). The education systems of the four countries that make up the United Kingdom are distinct from one another, but have many similarities. The discussion that follows is based on the English system (which accounts for the majority of VET delivery in the United Kingdom), but many of the observations hold for the entire United Kingdom.

The framework that surrounds VET in the United Kingdom is, in many ways, similar to that in Australia. Some of the UK's institutions are very close in function to their Australian counterparts. For example:

- the Sector Skills Councils have a role similar to Australia's Industry Skills Councils

- the National Vocational Qualifications framework is akin to the Australian Qualifications Framework (AQF)

- the United Kingdom has school-based VET delivery similar to Australia's VET-in-Schools (VETiS) programs.

During the past ten years, the UK Government has undertaken a series of reforms to enhance the quality of VET. The recent policy prominence of VET has been accompanied by fast growth in public funding, which doubled between 2002 and 2004 (Hoeckel et al. 2009). The *Leitch Review of Skills* (HM Treasury 2006) has given further attention to VET. The final report recommended that the United Kingdom should urgently and dramatically raise achievements at all levels of skills, and commit to becoming a world leader in skills by 2020 (defined as being in the upper quartile of the OECD). This would effectively require a doubling of attainment at most skill levels. The VET sector is seen as important in achieving these targets.

Teacher quality

In the United Kingdom, VET teachers (sometimes called 'lecturers' within FE colleges) are regarded as those working in schools and colleges, whereas trainers are employed mainly in a work-based setting (Cuddy and Leney 2005). Prior to 1999, there were few, if any, requirements in the United Kingdom for VET trainers and teachers to have formal training or to hold qualifications to teach. However, a string of poor reviews by the education regulator in the United Kingdom (the Office for Standards in Education — Ofsted) sparked a number of reforms (box F.1). As a result, the United Kingdom has moved from a system of relatively unregulated teacher standards to much stricter regulatory requirements related to teacher quality. At present:

- VET teachers in the United Kingdom are required to register with the Institute for Learning (IfL) — an incorporated independent professional body

- teachers commencing without a recognised teaching qualification are required to obtain, within a year, a 'Preparing to Teach in the Lifelong Learning Sector' (PTLLS) qualification and obtain full teacher registration (including mandated qualifications) within five years of commencement. In the United Kingdom,

about 90 per cent of FE teachers undertake their teacher training part-time and in-service (Orr and Simmons 2010)

- there are two categories of teacher. The first, called a 'Qualified Teacher, Learning and Skills' (QTLS), involves a 'full teaching role', while the second is an 'Associate Teacher, Learning and Skills' (ATLS), which involves fewer responsibilities

- to maintain their QTLS or ATLS credentials, teachers must undertake and record 30 hours of continued professional development per year (pro-rata for part-time teachers)

- the UK's education regulator, Ofsted, conducts inspections of teaching education programs (these inspections are extensive and thorough, and the results are published on the Ofsted website) (Wheelahan 2010a).

Box F.1   Motivations for the UK reforms to improve teacher quality

Prior to 2000, the United Kingdom shared much the same concerns around teacher quality that were expressed to the Commission in its consultations for this study. In particular, VET researchers in the United Kingdom were concerned that: educational skills were being forgotten in the push for industry currency; there was a lack of professional identity as a VET teacher; and there was inadequate continual professional development (Orr and Simmons 2010). These concerns were legitimised by the sector inspection agencies — the Office for Standards in Education (Ofsted) and the Adult Learning Inspectorate. The concerns of these agencies underpinned *Success for All* (DfES 2002), which urged reform on the basis that:

> There remain problems of widely diverging standards of learner achievement. There is too much poor provision and across the system as a whole, insufficient attention has been given to improving teaching, training and learning. For example, one in seven colleges require full re-inspection [i.e. the regulator found widespread problems]. We need to ensure that the quality of all providers reaches the standards of the best. (DfES 2002, p. 4)

Further surveys by Ofsted, in particular the 2003 publication, *The initial training of further education teachers: A Survey*, sparked continued rounds of reform. These reforms were outlined in *Equipping our Teachers for the Future* (DfES 2004) and *Further Education: Raising Skills, Improving Life Chances* (DfES 2006). These papers made recommendations for the system of regulation that surrounds teacher quality in the United Kingdom today.

Holloway (2009) noted that, to a large extent, the appropriateness of Ofsted's standards have gone unquestioned by the UK Government, despite some commentators having reservations.

Such strict regulatory controls are not in place for trainers. There is no formal requirement for trainers in the private VET sector to hold a recognised teaching

qualification. Trainers are appointed on the basis of their craft, academic or professional qualifications, and experience. Only those providers receiving public funding are expected to have trainers working towards obtaining QTLS or ATLS status.

Registering with the IfL

The IfL has responsibility for the registration and regulation of teachers as QTLSs and ATLSs. To achieve QTLS or ATLS status, teachers must demonstrate, through professional practice, the ability to meet the occupational standards required of a teacher. This process is known as 'professional formation' and requires the teacher to:

- have a minimum qualification

  – the minimum for ATLS is a Certificate in Education (the VET specific Certificate in Education is called the Certificate to Teach in the Lifelong Learning Sector — CTLLS) or a Professional-Graduate Certificate of Education (PGCE)

  – the minimum qualification for QTLS is a Diploma in Teaching (the VET specific Diploma in Teaching is called the Diploma in Teaching in the Lifelong Learning Sector — DTLLS)

- have level 2 literacy and numeracy

- demonstrate subject and teaching currency

- have plans for further professional development.

Requirements for vocational qualifications

Aside from education qualifications, VET teachers and some trainers must also hold qualifications related to their particular area of vocational expertise. A craft, trade or professional qualification, coupled with significant work-based experience in the relevant vocational area, is sufficient. Trainers are not required to hold education qualifications, but those involved in delivering and assessing nationally recognised workplace qualifications (known as National Vocational Qualifications — NVQs), must:

- meet requirements for occupational competence

- have, or be working towards, a qualification in assessment and/or quality assurance for NVQs.

The qualifications in assessment and quality assurance for NVQs are awarded in institutions, but are also delivered in the workplace (as an NVQ). College teachers and work-based trainers responsible for assessing trainees within NVQs must also possess an assessor award.

Issues with the UK system for the VET workforce

The UK Government is concerned about the status of the VET workforce. A recent inquiry found 'overwhelming evidence showing that the historic divide in status between school teachers and those in FE and the post compulsory sector, has, and will continue to have, a pernicious effect on recruitment' (SC UK, 2010, p. 35). However, attempting to improve recruitment through policies that encourage the professionalisation of the workforce is causing problems. For example, policies aimed at improving the qualifications obtained during initial teacher training create barriers to entry for potential new staff members (Lipinska et al. 2007). Strebler et al. (2005) noted that teachers from some vocational backgrounds, such as trades, are particularly reluctant to embark on teacher training.

Some commentators think that the recent reforms go too far, in general. Orr (2010, p. 50), discussing the UK standards for VET teachers, noted that:

> Such detail and even the length of the LLUK [Lifelong Learning UK] standards (190 statements) are in contrast to the equivalent single page of broad statements that cover higher education … , or even the much simpler General Teaching Council statement of standards relating to school teachers.

These strict regulations are seen by Orr to be disempowering for FE teachers and for those who teach FE teachers, because they are not premised on autonomy (an important aspect of professionalism).

The London Centre for Excellence in Teacher Training (LONCETT), in reviewing QTLS and associated reforms, noted that:

> There is concern about the suitability of the new qualifications and requirements for some groups of teachers in the sector. Many providers regard Qualified Teacher Learning and Skills (QTLS) as too steep a requirement for part-time teachers, especially in adult and community learning (ACL). There is widespread concern that the new requirements might exacerbate existing difficulties of teacher recruitment and reduce the diversity of the workforce. (LONCETT 2008, p. 1)

The same review also found evidence that the new regulations were interpreted differently among institutions, for example, in terms of what constitutes ATLS and QTLS:

Despite general support for the aim of achieving a more professional workforce across the sector, [LONCETT] found significant variation in the way in which the regulations are being interpreted and implemented. This might reflect the complex nature of the [VET] sector, with its mix of public, private and voluntary organisations and the differences between the groups of teachers, tutors, trainers and the sources of funding. (LONCETT 2008, p. 16)

This suggests that, although most stakeholders agree that a more professional workforce is a good thing, different providers have different plans to achieve this goal. The prescriptive regulatory measures have been, to some extent, circumvented to suit the circumstances of providers. This has led the UK Government to re-examine the requirements. A Skills Commission (UK) review of teacher training requirements revealed evidence that providers were unhappy with the requirements and concluded:

The requirements for, and distinction between, Qualified Teacher Learning and Skills (QTLS) and Associate Teacher Learning and Skills (ATLS), particularly in relation to part-time teachers, work-based teachers and the 'visiting lecturer' professional, should be re-examined. (SC UK 2010, p. 32)

The UK Government has also asked LLUK to conduct a full review of the qualifications, looking at the best way to improve them. The review will include all generic teaching qualifications, including PTLLS, CTLLS, DTLLS and their equivalents offered by higher education institutions. Commentators from the IfL have announced that their preference is for making the qualifications less time consuming, and for allowing greater recognition of prior study, to count towards completion of the qualifications (Lee 2010).

Ageing and recruitment

Like Australia, the United Kingdom has a relatively old and ageing VET workforce in the VET sector. In 2005, almost a third of the workforce in UK FE colleges was older than 50 years (Foster 2005). The recognition of ageing as a potential problem in *Realising the potential: A review of the future role of further education colleges* (Foster 2005), resulted in the development of the Catalyst program. This program ran from 2007 to early 2010 and comprised two main recruitment campaigns aimed at attracting new, younger recruits and portraying a dynamic image of the sector. They were:

- *Make a Difference*, which aimed to recruit experienced and motivated graduate-level individuals to management roles in FE providers. Once employed, each participant was supported by a funded leadership development program

- *Pass on Your Skills*, which aimed to attract candidates with substantial practical experience in specific priority sectors, where demand for FE teachers is highest, and also where skill shortages had been identified.

Pass on Your Skills attracted 14 000 expressions of interest and 7000 applications. *Make a Difference* attracted over 1000 applications from managers in other sectors and resulted in 170 successful management-level appointments. The UK's focus on recruiting young people for management positions within FE providers could further help those institutions portray a more dynamic image and recruit younger staff in the future.

F.4   VET workforce in the United States

In the United States, VET (known as Career and Technical Education — CTE) is the responsibility of the states and, as such, varies from state to state. There are no overarching national frameworks such as the AQF, although the non-government American Council on Education publishes detailed standards for many occupations, and many institutions give credit for learning completed at other institutions. Professional associations, which are mostly non-government, are often involved in setting occupational standards, assessing competence and providing certificates for the occupations that they cover (Cully et al. 2009).

Federal involvement is principally carried out through the *Carl D. Perkins Career and Technical Education Act 2006* (USA), which funds programs at the state and local level via 'Perkins grants'. The Office of Vocational and Adult Education within the US Department of Education supervises the activities funded under the Act, and evaluates the grants given to individual states and other local programs. Perhaps the most significant indirect role the Office plays is through the provision of student loans and grants to VET students in public and private institutions. Its capacity to vary access to these funds, based on student employment outcomes, acts as a de facto accreditation and quality control mechanism (Cully et al. 2009).

In the United States, VET is provided at the school, post-secondary and adult education levels. In contrast to Australia, much of the policy focus and government funding of VET activity is schools-based. For example in 2007-08, 75 per cent of Perkins grants were allocated to funding secondary school CTE enrolments (US Department of Education 2010). CTE in high schools contrasts to VETiS programs in Australia, as it does not necessarily aim to make students job-ready (OECD 2010). Many students take CTE courses to explore different career fields rather than as preparation for post-school employment. In 2005, almost all US secondary school students undertook at least one CTE course, but only one in five took more

than three credits in one area (OECD 2010). In contrast, VETiS programs in Australia aim to deliver full, nationally recognised qualifications to students.

The majority of non-school training is provided by private providers or in-house company programs, with relatively little public funding or regulation (Cully et al. 2009).

Regulation and registration of vocational teachers in schools

It appears that there are no mandated minimum standards for VET trainers and assessors in post-secondary VET providers in many US states. By contrast, different states have different certification processes and programs for teachers who deliver VET in US schools. Most new teachers in the United States are certified in the traditional manner, where they complete all certification requirements before beginning to teach. However, increasingly in recent years, teachers have followed an alternative route to certification (AC) programs, in which they begin teaching before completion of all certification requirements (Constantine et al. 2009). All 50 states and the District of Columbia offer AC programs (NCAC 2010). For example, Mississippi has four AC programs which grant a special beginner's teaching licence to people who have taken non-degree courses and those without degrees in education. Recipients are given up to three years to work their way to obtaining the standard licence to teach.

There is a precedent for alternative certification in CTE, with trade and industrial, and health occupation teachers typically using a certification process that emphasises work experience and occupational competence over academic credits completed and degrees earned (Gray and Walter 2001). However, AC programs are now seen to be particularly important for all categories of CTE teachers, in responding to a national staff shortage in the sector (NASDCTE 2009). The shortage is believed to be the result of a large increase in the number of students undertaking CTE, a decline in the number of CTE teacher education programs offered, and a growing number of teacher retirements (NASDCTE 2009).

The use of AC programs has been controversial. Critics argue that easing requirements degrades teacher quality, because AC teachers have limited educational skills. Supporters argue that the traditional certification process is burdensome and discourages talented people from entering the teaching profession.

Research on the effectiveness of AC teachers (in CTE and schools more broadly) does not provide strong evidence of one type of teacher performing better than the other. In general, studies show that students of AC teachers perform similarly, or more highly, than students of teachers certified in the traditional manner, or that

students of AC teachers scored slightly lower during their teacher's first year of teaching, but scored similarly by the teacher's second year (Kane et al. 2006; Boyd et al. 2005; Decker et al. 2004; Raymond et al. 2001). When differences have been found, they have been described by the authors as small. Research that focuses on CTE teachers concluded that there is no statistically significant difference in the academic achievement of students whose teachers took alternative routes to certification (Constantine et al. 2009).

F.5 VET workforce in Germany

In Germany, the states are responsible for VET. However, VET is planned at a national level and organised in partnership between Federal and State Governments (Sung et al. 2006). Learning on the job is a traditional component of the education system and the German VET system is sometimes referred to as the 'dual system'. This is because a high proportion of VET learning is split between the workplace and VET institutions. Practical training occurs principally in the workplace, and foundation skills, generic skills and theory are delivered in an institution. All VET in Germany is aimed at imparting competence to enable students to successfully prove themselves in the labour market (Hippach-Schneider et al. 2007). Up to 60 per cent of school leavers in Germany train in the dual system, which is similar to Australia's apprenticeship system (Keating 2008b).

Responsibility for the operation of the dual system is agreed between employers and the Federal and State Governments (Cully et al. 2009). VET students not in the dual system are studying in either schools or the transition system (which aims to make students ready for study in the dual system) (Hoeckel and Schwartz 2010).

Minimum qualifications for VET practitioners in Germany

The German system differentiates between VET teachers in VET institutions and workplace trainers. This distinction is common throughout the VET systems of Europe (Wheelahan 2010a). The regulation surrounding teachers tends to be stricter, with higher quality assurance measures than that required of trainers. Cort et al. (2004, p. 23) explained that:

> In almost all EU countries, to qualify as a teacher of vocational training, it is necessary to have a higher education degree followed by teacher training regulated at national level. In some cases the higher education degree can be replaced by a nationally recognised vocational qualification. Besides the sector-specific requirements related to the level of education, VET teachers need to have work experience.

In most countries the qualifications required of trainers or workplace instructors have not been formally defined. Neither do there appear to be any specific training paths to become a trainer of continuing training in a company or in a training organisation.

There are two categories of VET teacher in Germany: the first category includes teachers of vocational and general subjects (focusing on theoretical learning), while the second category includes those who teach vocational practice (focusing on practical skills).

The first category of teachers is highly regulated and undertakes extensive training in three stages:

1. a university (or equivalent) qualification, which includes 'relevant specialised teaching methods' as well as teaching practice, and a relevant vocational qualification in the occupational field or work experience in the field. A state exam must be passed at the end of this stage

2. teaching practice, which normally lasts two years and ends with another state exam

3. lifelong on-the-job learning that covers the whole career and requires further development, maintenance, updating and extension of teachers' vocational competence (Hippach-Schneider et al. 2009).

The second category of teacher is not required to have a higher education qualification, but must:

- be highly qualified in their field and have usually attained the status of foreman or skilled worker (in industry) or qualified craftsperson

- have a number of years of vocational experience

- undertake teaching practice in a school and in educational vocational seminars.

Workplace trainers are also covered by regulation that requires the trainer to:

- be suitable, both personally and in terms of specialised knowledge, to train young people

- have a qualification in a subject area appropriate to the training occupation

- have knowledge of the educational theory of the occupation and job.

Some issues with the German system

Although many acknowledge the quality of training in the German VET system, some, such as Sung et al. (2006), point out that it is inflexible and struggles to respond to changing economic conditions. For example, in 2003, there was a deficit

of over 15 000 apprenticeship places, leading the government to announce an 'offensive to create more apprenticeship places' (*Ausbildungsplatzoffensive*). The process of agreement between the public sector and employers, that was necessary to create places in the dual system, was cumbersome and was simply not able to respond to economic conditions at the time.

In response to the shortfall in apprenticeship places, the German Government suspended the rules applying to in-company trainers of apprentices (the Ordinance of Trainer Aptitude — OTA). The idea was that the suspension would 'remove cost and bureaucratic obstacles that were perceived as inhibiting companies' participation in apprenticeship' (European Commission 2009, p.7). Indeed, the suspension, which ran from 2003–08, was assessed as creating between 10 000 and 25 000 apprenticeships per year (BIBB 2008). However, the suspension was also assessed as having negative qualitative effects, including a rise in the drop out rate and higher amounts of reported conflicts between trainer and trainee. Following this evaluation the OTA was re-introduced as of August 2009.

Structural change is particularly difficult to deal with in the German system. The development of new qualifications is heavily regulated and requires extensive consultation between private enterprises and the public VET system. In the past decade, Germany has experienced a structural shift, involving a decrease in the traditional crafts and an increase in the services sector, such as the hotel and catering industry (Sung et al. 2006). This ongoing change has led to a persistence in the shortfall of apprentices and an extension of the *Ausbildungsplatzoffensive*. Some commentators believe the system to be too rigid for the current economic climate and observe that a less regulated approach to skills formation is more appropriate as economies become more globalised and knowledge-based (Wurzel 2006, Culpepper 1999). Keating (2008b) argued that Germany is faced with the challenge of maintaining its training culture, while also introducing greater flexibility, market responsiveness and innovation into the VET system.

Under the dual system, individuals tend to train heavily in the first years and continuous training is relatively less utilised. Germany records low levels of participation in adult education (OECD 2005). There is evidence that this highly-planned, pathways-based system is not conducive to the development of the generic skills that underpin flexibility and innovation in the workforce (Keating 2008b). In other words, Germany's heavy commitment to the dual system is associated with limited occupational mobility and labour market flexibility.

F.6   VET in New Zealand

VET in New Zealand is an integral part of a unified tertiary sector. Providers in the tertiary sector range from publicly-owned tertiary education institutions (TEIs), such as universities, Institutes of Technology and Polytechnics (ITPs), colleges of education, wananga (institutions that provide education in a Maori cultural context) and 'specialist colleges', through to private training establishments. Any of these bodies may offer VET. A single tertiary sector means that much of the governance of VET institutions is common to both VET and higher education. For example, the Ministry of Education is responsible for an overarching strategic policy role, and the Tertiary Education Commission (TEC) is responsible for allocating government funds for all post compulsory education and training (Moodie 2005).

TEIs operate with substantial institutional autonomy. While universities have always enjoyed a degree of independence, it was not until the enactment of the *Education Act 1989* (NZ) that the sector's decision-making powers were decentralised to the colleges of education and the ITPs. In New Zealand, legislation provides the framework for all employment arrangements in tertiary sector providers, but it is the responsibility of individual providers to manage their own staffing arrangements. The *State Sector Act 1988* (NZ), makes the chief executive of each TEI responsible for employing staff and for negotiating employment agreements. However, before entering into any collective agreement, the chief executive must consult with the State Services Commissioner over the conditions of employment to be included in the collective agreement.

Governance reforms were accompanied by a move in New Zealand's VET funding system to bulk-funding. Under this system, government funds are provided via the TEC — in bulk — to Industry Training Organisations (ITOs) that then purchase training from competing private and public sector providers on behalf of employers. ITOs are also able to purchase training from employers directly, in the form of formal workplace training (Stratdee 2003). The reforms also enabled TEIs to set fees, and gave them control over their own capital expenditure. The OECD credits the reforms with major growth in the tertiary sector in the 1990s as 'institutions developed innovative ways of meeting student demand in a relatively deregulated environment' (OECD 2006, p. 21). In the decade to 2004, the number of New Zealanders in tertiary education increased by 82 per cent. A large portion of this increase is attributable to VET, with enrolments in certificate and diploma qualifications increasing by 103 per cent, while enrolments in degrees increased by 10 per cent (OECD 2006).

Industry involvement in New Zealand VET

Employers play an active role in the New Zealand VET sector, through the provision of industry training, which was introduced with the passing of the *Industry Training Act 1992* (NZ). The Act allows for the formation of ITOs by groups of employers. In contrast to Australia's Industry Skills Councils (ISCs), the formation of ITOs is demand-led. The New Zealand Government does not seek to define the number or structure of ITOs, instead defining broad criteria and objectives for these organisations to meet (Baker 2010). A distinctive feature of the ITO is that they facilitate on-the-job training, by funding accredited training that occurs within the workplace. Unlike Australia's ISCs, ITOs are set up and funded entirely by groups of employers. However, industry training is jointly funded by the government (through the Industry Training Fund) and by industry through financial and in-kind contributions. In 2008, the New Zealand Government spent NZ$198 million on industry training and this was matched by NZ$70 million in contributions from industry (ITF 2011).

ITOs also develop unit standards and national qualifications for each industry or industry sector, but do not provide training themselves. The unit standards developed by ITOs are market-led, in the sense that they are developed by the employers that make up an ITO. Like Australia's Training Packages, the unit standards are established at a particular level of a National Qualifications Framework (NQF), and can be grouped in numerous ways to form nationally recognised qualifications (known as national certificates). In addition, unit standards are intended to be portable, so that individual learners can, for example, study simultaneously at a variety of institutions while working towards one qualification, or start working towards post-school qualifications while at school. Assessment is on the basis of competence and students are assessed on a pass/fail basis. New Zealand industry pays an important role in moderating these assessments. In Australia no such system exists, and scholars such as Gavin Moodie (2010, p.50) have argued:

> The combination of weak monitoring of inputs and processes and little external monitoring of assessment standards has weakened Australian vocational education. The … periodic crises of confidence in the quality and standards of Australian vocational education will not stop until there is an increase in the external monitoring of its inputs, processes, assessment, or of a combination of these.

National external moderation

In New Zealand, representatives of ITOs conduct regular moderation of assessments undertaken by accredited VET providers. It is the responsibility of accredited organisations to engage in the national external moderation system, and to comply

with the requirements of moderation. The main purpose of this system is to ensure consistency in assessment across the nation.

Every NQF-registered standard is covered by an Accreditation and Moderation Action Plan (AMAP). The moderation information in the AMAP provides detail on the national external moderation system applicable to the standards covered by the AMAP. ITOs are required to report annually to the New Zealand Qualifications Authority, on the management of their national moderation systems. In 2009, 15 ITOs found less than 10 per cent of assessments were not at the national standard. However, four ITOs experienced over 50 per cent of assessments that were not at the national standard. Depending on the issues raised, remedies ranging from a request to resubmit assessment materials through to increased frequency of moderation visits in the future were required by the ITO. In most cases, the processes for following up an accredited organisation's non-compliance are reported as being very effective (by 71 per cent of ITOs), and 24 per cent of ITOs did not have to use these processes (NZQA 2010). Three ITOs reported that they had referred issues to the relevant quality assurance body for further action. The quality assurance board can remove accreditation if deemed appropriate.

Nearly all (38 of 39) ITOs have a follow-up process to ensure that feedback from the national external moderation activities is used in the ITO's review of its unit standards. In this way, employers in New Zealand are continually involved in the development and updating of unit standards (in Australia, employers contribute to training packages during periodic reviews).

Some problems with the system of external moderation

There are costs associated with running such a system. The New Zealand Government subsidises the external moderation system, providing about 40 per cent of the funds needed to run the ITOs' external moderation systems. The average ITO (there were 39 ITOs in New Zealand in 2009) in 2009 spent NZ$107 000 on its external moderation system.

There are also problems with ensuring consistency in what ITOs think external moderation is intended to achieve, and how it is conducted. A survey conducted for the Industry Training Federation found:

> ITOs reported several approaches to, and understandings of, moderation. In the main, moderation involved pre-moderation of assessment tasks to ensure that assessments were assessing the right things and were connecting training goals to assessment, and post-moderation of assessments. … In some cases moderation was understood to be about ensuring that specific standards have been consistently and reliably assessed. In

other cases it was understood to be about checking the assessment process. (Vaughn and Cameron 2010, p. i)

F.7   School teachers in Australia

Teacher registration systems

Each state and territory has its own teacher registration authority, which also serves as a regulator. In each state, an individual must be registered to teach before applying for work as a teacher. Each state's system varies slightly, but the goals of the regulators in each state are similar. For example, in Victoria, the regulator is expected to ensure that a set of community expectations are met, encompassing an appropriate level of professional competence, knowledge, duty of care and standards of conduct for that profession. In practice, this translates to a person having:

- met the minimal education requirements (graduation from an accredited teaching course), and be of good character (requiring a criminal record check and a 'working with children' certificate)

- undertaken a 12-month period of provisional registration. At the end of this period, teachers need to present evidence of their practice to meet the standards for full registration.

Teachers must renew their registration every five years. In order to do so, they must have undertaken at least 50 days of teaching, equivalent practice or educational leadership over that period, and completed a minimum amount of professional development activities within a given timeframe — currently set at 100 hours of recognised professional development activity over 5 years.

There are about 200 teacher education courses in Australia and no nationally mandated requirements for accreditation of teacher education programs, although the states each have regulations in this area (Ingvarson et al. 2006).

Minimum qualifications for early childhood teachers

At present, regulatory arrangements for the Early Childhood and Development (ECD) sector vary between states and territories, and between types of providers. There is no national consistency in the qualifications required of pre-school teachers and carers who are responsible for pre-school aged children. For example,

Queensland has its own requirements covering the teaching qualifications required for working in licensed children's services (box F.2).

Box F.2   Minimum qualification requirements for working in Early Childhood and Development in Queensland

The *Child Care Act 2002* and the *Child Care Regulation 2003* provide the legislative framework for Early Childhood and Development in Queensland. All staff employed by a licensed child care service are required to be qualified, with the exception of family day carers.

Qualification requirements for each type of care are as follows:

- centre-based care (excluding school age care):
  - a centre director must hold at least an advanced diploma in an area of study applying to child care workers
  - a group leader must hold at least a diploma (or equivalent) in an area of study applying to child care workers
  - an assistant must hold at least a Certificate III or IV in an area of study applying to child care workers
- centre-based care — school aged care:
  - a group leader must hold at least a diploma in community services (or equivalent)
  - an assistant must hold at least a Certificate III or IV in Community Services
- Family Day Care (FDC):
  - a FDC coordinator must hold at least a diploma in an area of study applying to child care workers.

Source: COAG (2009d).

From 1 July 2010, the Council of Australian Governments (COAG) has agreed to the progressive introduction of a National Quality Framework covering ECD. The framework will put in place a new National Quality Standard. As part of this standard, there are strict requirements applying to ECD staff and teacher training. By 1 January 2014:

- A [university educated] early childhood teacher will need to be in attendance all of the time when long day care and preschool services are being provided to 25 children or more (some of the time for less than 25 children).

- Within each long day care centre or preschool, half of all staff will need to have (or to be actively working towards) a diploma-level early childhood education and care qualification or above, and the remaining staff will all be required to have (or be actively working towards) a Certificate III level early childhood education and care qualification, or equivalent.

- All family day care coordinators will need to have a diploma-level early childhood education and care qualification or above.

- All family day carers will be required to have (or be actively working towards) a Certificate III level early childhood education and care qualification, or equivalent. (COAG 2010b, p. 3)

By 1 January 2020:

- A second early childhood teacher, or another suitably qualified leader, will need to be in attendance all of the time when long day care and preschool services are being provided to more than 80 children.

- A second early childhood teacher, or another suitably qualified leader, will need to be in attendance at least half of the time when long day care and preschool services are being provided to 60 children or more. (COAG 2010b, p. 3)

The rationale for such strict regulation of teachers in the ECD sector is that there are a number of positive externalities that arise from good quality teaching of those at an early age. The Commission is currently engaged in a study of the ECD workforce, which will consider these issues further.

F.8 Higher education lecturers in Australia

The Bradley Review

The Bradley Review of Higher Education (Australian Government 2008) raised three concerns relating to recruitment and retention of a quality workforce in higher education (these concerns have also been mentioned in the Commission's consultations and in submissions to this study):

- the ageing of the workforce

- casualisation of staff, reducing the attractiveness of a career in academia

- changes in work conditions (for example, higher student-to-teacher ratios, increased workload pressures).

Ageing of the higher education workforce

Like the VET sector, the higher education sector is concerned about the ageing of its workforce. The Bradley Review noted that there is a significantly higher proportion of Australian academic staff aged 45–54 and 55–64 than in the total labour force. There is a risk that increasing numbers of retirements over the next decade, combined with a slowdown in the growth rate of students taking research

PhD qualifications, will result in staff shortages. In response to this issue, the Bradley Review recommended measures to encourage more people to undertake higher degree (by research) qualifications, an increase in the value of Australian Postgraduate Awards to $25 000 per year, and an increase in the length of support to four years.

Casualisation

In 2007, casuals made up 22 per cent of all teaching staff in Australian universities (Coates et al. 2009). The Bradley Review noted that casualisation of workers in the higher education sector is a 'negative unintended consequence' arising from a lack of funding. The report argued that the use of casual staff is damaging the quality of teaching at Australian universities because of the lack of effective training opportunities for casual academics. It also cited Brown et al. (2008), who contended that inconsistent supervision of casual staff, and a lack of integration of casual staff in faculty arrangements, also cause problems. The Bradley Review also found that casualisation reduces the attractiveness of an academic career (especially to younger staff, who are often employed on a casual basis), since casuals experience income insecurity, workloads beyond their paid hours, and isolation from the university community.

The problems associated with casualisation in the higher education sector have also been raised in relation to the VET sector (chapter 9). Unlike the higher education sector, use of casual staff is an important mechanism by which the VET industry efficiently captures the understandings of contemporary industry currency.

Working Conditions

The Bradley Review cited OECD evidence that the relative attractiveness of becoming an academic has decreased globally. Low salary levels (compared to the private sector) and increased workloads and pressures are blamed. In addition, a study by Winefield et al. (2002, p. 8) concluded:

> Australian university staff, particularly academic staff, are highly stressed. Diminishing resources, increased teaching loads and student/staff ratios, pressure to attract external funds, job insecurity, poor management and a lack of recognition and reward are some of the key factors driving the high level of stress.

However, the Review also pointed out that Australian universities have few problems retaining staff, but that this is expected to change due to higher student-staff ratios. The Review also suggested that, by international standards,

academic pay rates are relatively high in Australia (although still not favourable in comparison to private sector pay).

Regulation of the higher education workforce

The bulk of regulation in the higher education sector concerns requirements for entry of new providers into the sector. The human resource activities of universities are left to the institutions, with no regulation on minimum qualifications (research- or teaching-oriented) to be held by the higher education workforce, or on required registration.

John Mitchell and Associates (sub. 37) pointed out that attempts to change this situation, by introducing mandatory standards, is a contentious issue. A recent Department of Education Employment and Workplace Relations (DEEWR 2009a) proposal to tie funding to the proportion of teaching staff with a Graduate Certificate in Higher Education (a proxy for quality) raises questions about the link between the qualification and teacher quality, and on the appropriateness of establishing the qualification as a barrier to entry into university teaching.

F.9 Accountants in Australia

Voluntary registration has been suggested by some as a desirable model for VET teachers in Australia (chapter 10). The accountancy profession in Australia is one of the professions that uses a system of voluntary registration to self-regulate.

Registration in the financial professions is mainly voluntary. There is no legislated requirement for registration of accountants in Australia, except for financial advisers, tax practitioners, external auditors and liquidators. Nonetheless, higher status is conferred on accountants who register with an Australian professional accounting body. Likewise, public practitioners (accountants who service external clients) with an Australian professional body designation are the preferred choice of many consumers.

There are a number of professional associations for accountants in Australia, including:

- the Institute of Chartered Accountants in Australia (ICAA)
- CPA (Certified Practicing Accountant) Australia
- the National Institute of Accountants
- the National Tax and Accountants Association Ltd

- the Institute of Internal Auditors of Australia.

Some associations reflect a particular area of expertise (for example, the Institute of Internal Auditors of Australia). However, other associations (for example, CPA Australia, ICAA and the National Institute of Accountants) cover a wide range of practitioners.

The ICAA and CPA Australia are the largest professional accounting bodies in Australia. The ICAA has 50 000 members and CPA Australia's membership is over 129 000. The main requirements of registration with CPA Australia and the ICAA are:

- the completion of an approved graduate-level course at an accredited institution

- the completion of a professional accreditation program prior to being admitted as a member. This program involves both extra study and work experience (3 years minimum with a registered supervisor). Members wishing to operate a business as a public accountant must also complete a public practice program

- a commitment to continuing professional development and education

- abiding by a professional code of conduct. A formal process enables complaints about members to be heard, evaluated and, where appropriate, disciplinary action to be taken

- undergoing periodic quality reviews for public practitioners. For example, the CPA Australia Quality Review Program, which aims to ensure that Certified Practising Accountants in public practice maintain the highest professional standards.

In setting these standards, the profession seeks to provide consumers with information so as to allow them to differentiate between reputable and qualified practitioners, and disreputable or unqualified practitioners. The market for accountants in Australia is highly competitive, with hundreds of thousand of active practitioners. Since there is no legal constraint to prevent unqualified or dishonest persons from setting up as an accountant in public practice, a competition incentive exists for quality professional accountants to become registered. Indeed, the bulk of accountants working in public practice are registered (Wallace et al. 2000). Understandably, the incentive to register is not as strong for accountants who are privately employed within an existing business or firm.

If consumers were able to discern easily the quality of an accountant, or were unable to switch accountants easily, it is unlikely that self-regulation would have arisen. It is the threat of competition and a need to provide quality signals to

consumers that drive such schemes. In a highly competitive market, membership of a professional body confers a competitive edge to some individuals.

It is unlikely that gaining a competitive edge would constitute as strong an incentive in the case of the VET workforce. RTOs, not individuals, are authorised to deliver accredited qualifications. A private individual who belonged to a registration scheme would not, therefore, command a greater share of the market for this type of qualifications. He or she may, however, prove attractive to consumers seeking unaccredited training.

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