Australian Government
Productivity Commission

Vocational Education and Training Workforce

Productivity Commission Draft Research Report

November 2010

This is a draft research report prepared for further public consultation and input.

The Commission will finalise its report after these processes have taken place.

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Opportunity for further comment

You are invited to examine this Draft Report and provide written comments to the Productivity Commission. If possible, these should be provided by email and be accompanied by a submission cover sheet. See 'How to Make a Submission' on the web page listed below.

This Draft Report contains a number of information requests in the body of the report (chapters 4, 7 and 8), highlighted using italics, as this is. The Commission would be particularly grateful for responses to those requests.

Written comments should reach the Commission by 28 February 2011.

The final report will be prepared after comments have been received and discussions with interested parties have been held.

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Terms of reference

PRODUCTIVITY COMMISSION EDUCATION AND TRAINING WORKFORCE STUDY

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]

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Acknowledgments

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This study was oversighted by Commissioner David Kalisch and Deputy Chairman Mike Woods. They were supported by a study team located in Melbourne. Commissioner Kalisch and some members of that team have immediate family members who are employed in the Vocational Education and Training workforce.

Abbreviations and explanations

Abbreviations

ABS	Australian Bureau of Statistics
ACCI	Australian Chamber of Commerce and Industry
ACE	Adult Community Education
ACER	Australian Council for Educational Research
ACPET	Australian Council for Private Education and Training
AEU	Australian Education Union
Ai Group	Australian Industry Group
ANTA	Australian National Training Authority
AQF	Australian Qualifications Framework
AQTF	Australian Quality Training Framework
AVETMISS	Australian Vocational Education and Training Management Information Statistical Standard
CCA	Community Colleges Australia
COAG	Council of Australian Governments
CRICOS	Commonwealth Register of Institutions and Courses for Overseas Students
CSO	community service obligation
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
ERTO	Enterprise Registered Training Organisation
ERTOA	Enterprise Registered Training Organisation Association

ESOS	*Education Services for Overseas Students Act 2000* (Cwlth)
IBSA	Innovation and Business Skills Australia
ICT	information and communication technologies
IGA	Intergovernmental Agreement on Federal Financial Relations
ITAB	Industry Training Advisory Body
ISC	Industry Skills Council
JTA	Joint TAFE Associations
LHMU	Liquor, Hospitality and Miscellaneous Union
LLN	language, literacy and numeracy
MCA	Minerals Council of Australia
MCTEE	Ministerial Council of 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
NQC	National Quality Council
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
OECD	Organisation for Economic Co-operation and Development
PC	Productivity Commission
RCC	recognition of current competency
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
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
TESOL	teaching English to speakers of other languages
TEQSA	Tertiary Education Quality and Standards Agency
TVET	Technical and Vocational Education and Training Australia
VET	Vocational Education and Training
VETiS	VET-in-Schools

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 paragraphs highlighted using bold italics, as this is.***
Requests for further information	*Information requests are paragraphs highlighted using 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 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 contributes to Australia's economic prosperity by building people's human capital and equipping them with the skills that industry needs. It also contributes to social inclusion and civic participation.
- Australia's VET providers comprise nearly 5000 Registered Training Organisations (RTOs), ranging from very large and broadly-based public sector Technical and Further Education (TAFE) institutes managed by state and territory governments, to private sector and enterprise-based RTOs of varying size and scope.
- The VET workforce comprises 73 900 TAFE employees and an estimated 72 800 to 541 000 people working in other VET providers, with a mix of trainers and assessors, other professionals and general staff across the public and private sectors. It has a greater proportion of staff that are part-time, casual and older, compared to the general labour force.
- VET trainers and assessors are required to be 'dual professionals', with both industry currency and educational capabilities.
- At an aggregate level, the current VET workforce numbers 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 skills in demand; greater attention to meeting the contemporary skill needs of industry; 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 of skills in demand
  - more consistent delivery of the Certificate IV in Training and Education (TAE) to the required regulatory standard, to improve basic educational capability. More trainers and assessors in the VET sector should hold this qualification
  - more effective delivery of foundation skills and higher-level qualifications. This will require a VET workforce that includes some workers skilled above the Certificate IV in TAE, to meet the anticipated needs of students
  - more industry release, combined with other strategies, to maintain the contemporary vocational competence of those workers who are only employed in the VET sector
  - more professional development to specifically meet some 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 draft report on the VET workforce is the first from this suite of studies.

In particular, the Commission was required 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 also considered the context in which the VET sector operates and the implications this has for workforce composition and development.

This focus on the workforce is well placed because, in a high-skilled and labour intensive activity such as education and training, the overall quality of the service is dependent on the availability and quality of those delivering the service.

The VET sector

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

To meet the range of challenges it faces, or is likely to face, the VET sector should be able to:

- inspire, stimulate and enrich learners from all segments of the community
- provide 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 defined VET sector providers as all Registered Training Organisations (RTOs). Registration is an essential prerequisite to delivering accredited courses.

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. Table 1 shows the nature of the sectors in which some of these RTOs are located. Large, broadly-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 and large specialised providers coexist with private Enterprise Registered Training Organisations (ERTOs).

Table 1 **Broad indicators of VET sector activity[a]**

	TAFE and other government providers	*Private RTOs (including ERTOs)*	*ERTOs*	*RTOs receiving public funds*
Number of students	1 312 300[c]	1 467 000[d]	na	1 707 000[c]
Student contact hours	368.2m[c]	na	na	438.9m[c]
Certificate-level enrolments	845 000[c]	597 900[e]	77 787[f]	1 362 000[c]
Diploma or higher enrolments	185 000[c]	307 100[e]	12 237[f]	223 000[c]
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] ERTOA estimate of number of qualifications issued in 2008. na not available.

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

The VET qualification most frequently studied is the medium-skilled Certificate III (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. In 2009, more than half of VET students were aged 25 years or over, and most VET students had a prior eductional level of Year 12 or lower.

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 schools and universities that now double as RTOs. However, in the VET sector today, a very large number of private providers who meet requirements for registration as an RTO also receive public funding. In 2008, public funding of private RTOs amounted to $455 million which, combined with private sector funding estimates, suggests a total private provider revenue of $2.5 billion in that year (table 2).

Table 2 **Government and fee-for-service funding to government and private VET providers, 2008[a]**

	TAFE and other government providers	*Private providers*[b]
	$ million	$ million
Government recurrent funding	3 645	455
Fee for service	991	2 075
Total	4 636	2 530

[a] Estimates only. [b] Includes private ERTOs, private RTOs receiving public funding and other RTOs.

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

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 for their funding. Others, including TAFEs, use private fees to supplement public funding.

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 7.3 per cent between 2000 and 2009, international student numbers more than doubled. In the private sector, the number of international students grew more than sixteen times over the same period.

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 led 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.

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

	2000		*2009*		*Growth 2000–09*
	'000	%[a]	'000	%[a]	%
Public RTOs					
Domestic students	1537.1	98.7	1424.5	97.3	-7.3
International students	19.8	1.3	39.7	2.7	100.5
Private providers[b]					
Domestic students	na	na	1274.7[c]	86.9	na
International students	11.0	na	192.3[c]	13.1	1648.2

[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 FTE 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).

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 usually associated with the schools sector. At the other end of the spectrum, universities have long offered Diplomas and Advanced Diplomas, two qualifications that 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' institutions, public and private, deliver both VET and university courses. Qualifications offered by institutions in this 'tertiary' sector range from Certificates to Doctorates.

Role of industry

Industry engages with the VET sector on many levels. As consumers, firms rely crucially on the VET sector to supply the skills they require. As clients, industries can purchase the services of the VET sector, directly or through government subsidies. Finally, the VET workforce is sourced, in many cases, from the staff of firms.

Employer peak bodies play a key role in shaping Training Packages through Industry Skills Councils, and contribute to other major VET advisory arrangements, including Industry Training Advisory Boards and the National Quality Council.

Firms have always trained their employees in-house. In recent times, some firms have opted to seek accreditation as ERTOs. This enables them to deliver portable Australian Qualifications Framework (AQF) qualifications, and receive government funding for the training they deliver.

Government initiatives

In 2008, COAG agreed to targets for the educational attainment of the population. This will require 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.

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 2011) of a national VET regulator, to have responsibility for RTO quality assurance, monitoring and enforcement in all states and territories (except for 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 pursuing greater funding contestability, competition 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. In 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 VET workforce are not available. Reliable data on the TAFE workforce, drawn from administrative payroll sources, suggest that it numbers 73 900. Estimates of the non-TAFE workforce, including private RTOs,

are less available and much less reliable, and estimates based on ABS data vary from 72 800 to 541 000. These estimates include trainers and assessors, other VET professionals and general staff.

About half of the VET workforce comprises trainers and assessors who, as 'dual professionals', operate in both educational and industry environments. They have the ability — and responsibility — to ensure that their teaching is based on current industry practices and, hence, meets the needs of industry.

They range from ongoing, full-time VET practitioners, who deliver training and assessment, course development, recognition of prior learning (RPL) and recognition of current competencies (RCC) to industry experts who deliver specific training under supervision, usually 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 employees in the VET sector. Estimates suggest that up to a third of trainers and assessors in the non-TAFE sector are engaged under this form of employment. In the TAFE sector, about 60 per cent of trainers and assessors were employed on a non-permanent basis in 2008. More recent administrative TAFE data suggest that there is a high use of casuals in the roles of trainers and assessors in the TAFE sector, but with significant variation across jurisdictions.

Casualisation of the VET workforce is partly linked to the sector's emphasis on industry currency and strong involvement with industry more generally. Accordingly, any caps on the engagement of casuals are likely to be detrimental to the achievement of VET objectives.

Use of casuals also underpins the ability of the VET sector to respond quickly and adequately to new or varying skills requirements over time and in different regions. Casual employment might, in some circumstances, reduce the quality of the teaching or learning experience in VET, and restrict opportunities to develop teaching and assessment ability. However, mobility data indicate that three quarters of VET trainers and assessors who joined the VET sector as casuals or fixed-term employees became permanent or ongoing (and mostly full-time).

Recruitment of VET workers

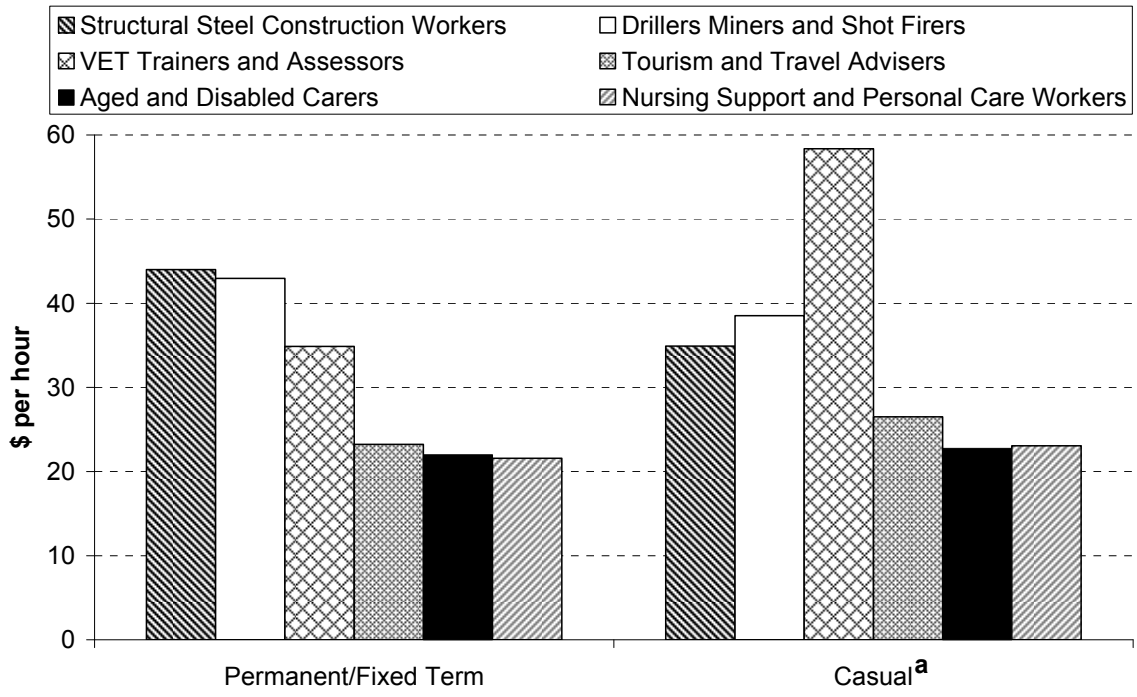
Although there do not appear to be widespread labour shortages affecting the VET sector, some deficiencies have been identified for:

- 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 and e-learning)
- non-teaching staff with suitable managerial, human resources, information and communication technologies or VET compliance systems expertise
- trainers and assessors in some regional and remote locations.

Recruitment difficulties in specific areas are mainly attributed by participants to the VET sector's inability to pay competitive salaries, relative to the industry norm in those areas. Analysis by the Commission confirms this claim in relation to permanent/fixed-term employees in some occupations (figure 1). However, there are occupations for which VET salaries are on par with, or higher than, those on offer in other industries. Looking across the education sector, VET salaries are, on average, below those of university lecturers but above those of school teachers.

Other work conditions in the VET sector might also be regarded as attractive. 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 valuable to those who have carer or volunteer duties, or give work–life balance a high priority for other reasons. Casual employment can be conducive to the realisation of non-work objectives. It can also form part of a portfolio of several jobs, and might be financially attractive for that reason.

Figure 1 **Total earnings per hour, VET trainers and assessors and selected alternative occupations, 2008**



[a] 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 *Survey of Employee Earnings and Hours* (2008), Cat. no. 6306.0.

Retention of VET workers

There are some concerns about the ability of the VET sector to retain workers in the medium term. The VET workforce is relatively old. In 2006, the average age of non-TAFE trainers and assessors was 44 years, some four years older than that of the wider labour force, with the average for the TAFE trainer and assessor group being even higher, at 48 years in 2008.

To some extent, this older age profile is a consequence of the vocational nature of the disciplines being taught in VET, which require prior experience in industry. VET teaching is often a second career for manufacturing or construction workers who 'go off the tools'. The age profile also reflects the tenure of a large cohort of workers who entered the VET sector more than ten years ago, and some of whom are now approaching retirement. However, further ageing of the TAFE workforce might be mitigated, to some extent, by replenishment from other workers who are

themselves relatively old. In the TAFE sector, at least, many joined their current institute 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.

Future challenges for the VET sector

A confluence of demographic and economic factors will create challenges and uncertainty for the VET sector. These factors include:

- population ageing that drives demand for specific skills, while also tightening the overall labour market throughout the economy
- immigration that increases the demand for VET-generated skills
- economic growth and structural change that require deeper skills and new skills, including greenskills
- the business cycle, and more specific industry cycles, such as in agriculture and the resources sector.

Although the nature of these anticipated future forces is broadly understood, their specific impact on the VET sector and its workforce is less certain.

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 capacity of the VET workforce grows commensurately. Capacity is a function of the number of VET workers and the efficiency with which they operate (for example, their individual effort).

The VET sector needs to recruit additional skilled workers at the same time as many other industries are doing likewise, from an overall pool of workers that is growing more slowly, due to population ageing.

Improving the efficiency and productivity of the VET sector

There is a case for improving the efficiency and productivity of the workforce through adoption of more contemporary work practices across the sector.

Industrial relations settings in the VET sector influence the efficiency with which individual workers and work groups are used. In the TAFE sector, existing statewide agreements apply homogenised levels of pay, based on tenure and, to a lesser extent, qualifications. These instruments typically trade off low pay for low

hours. They set up workforce rigidities that limit the ability of TAFEs to recruit according to need, reward better performance and compete with private providers (who tend to enjoy greater freedom in setting pay and conditions).

The Commission recommends that industrial relations settings in the public VET sector become more flexible and transparent. In particular, there should be enterprise-level wage agreements, contemporary performance management arrangements, and flexibility of employment arrangements that best suit the needs of students, employees and the employer.

Inevitably, VET will need to pay higher wages for some skills in demand. Higher wages would be efficient if they reflected the value to the VET sector of some skills (including industry currency) and qualifications, and the contributions of those who hold them.

Offsetting wage rises, public sector VET providers should have the opportunity to pay staff according to the market value of their industry skills and their additional educational capabilities. The uniform wage setting arrangements in TAFE, which do not differentiate between industry skills, might lead to higher salaries being provided to some VET staff than is necessary to attract suitable workers to the sector.

Any residual VET workforce capacity constraints could be mitigated through the enterprise sector delivering a greater share of the VET effort. More VET being delivered by enterprises would shift some responsibility for underprovision or misprovision of VET to industry itself, and would ensure industry currency for trainers and assessors. Nevertheless, in-house delivery of VET might not be regarded as core business by many firms, and comparative advantage and economies of scale and scope will continue to underpin the existence of a standalone VET sector.

Ensuring VET workforce capability

The dual professional identity of VET trainers and assessors means that many bring a great deal of work experience, expertise and qualifications to the classroom, the workshop or online.

Individual VET trainers and assessors are required to meet minimum standards, both in terms of their knowledge of industry and their qualifications. In particular, the Australian Quality Training Framework (AQTF) mandates that they:

- hold vocational qualifications at least equal to that which they are delivering

- hold a Certificate IV in Training and Assessment (TAE) (or equivalent qualification) or, if not, be supervised by someone who does
- can demonstrate industry currency directly relevant to their training or assessment role.

As a group, the majority of trainers and assessors have post-secondary qualifications. About 20 per cent of VET trainers and assessors hold postgraduate qualifications, and an approximate 40 per cent have undergraduate or Diploma qualifications.

However, many individual trainers and assessors do not possess the Certificate IV in TAE or equivalent educational qualifications.

Industry currency is difficult to measure, but evidence suggests that it is patchy. Just under 20 per cent of VET trainers and assessors have a second job outside the education industry, something that might assist with their industry currency if that other job is relevant to their training. VET workers with short tenures are also more likely to have currency. In comparison, a recent audit by one jurisdiction revealed gaps in industry currency, particularly among staff with long tenures.

Although it can be efficient for the diverse skills and qualifications of a group of workers to be combined within a team to deliver effective training, rather than all workers needing to be the repository of all skills, minimum capabilities are required of all VET trainers and assessors.

Improving VET workforce industry currency

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 older practitioners without recent industry experience often have outdated skills. However, in some areas, VET workers with long tenure have good access to professional networks or communities of practice, nurtured over time. The likely retirement of very long-tenured VET workers over the next decade will, therefore, have mixed impacts.

Industry currency can be maintained and enhanced through the use of industry experts within teaching teams. Regulatory barriers to their activity — including mandatory qualifications — should be kept to a minimum.

Ongoing professional development should provide another opportunity for VET workers, especially those with long tenure in VET, to ensure that their industry currency is contemporary (discussed later).

Improving VET workforce educational capability

The rapid expansion of the VET sector, in recent times, through the development of private provision, has left the penetration of teaching skills within the workforce lagging.

At a pragmatic level, the existence of under- or un-qualified staff is explained by the fact that the AQTF does not mandate the TAE (or its predecessors) for teaching-only staff, as long as they are supervised by someone who holds the Certificate (or equivalent). This is notwithstanding the fact that this qualification was specifically designed to provide a minimum teaching standard for all trainers and assessors.

The need for sound educational skills is also highlighted by the push by 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. At the other end of the spectrum, the emergence of a tertiary sector delivering both VET and higher education qualifications will require a number of the VET workforce to upskill their vocational and teaching qualifications.

Adequacy of the Certificate IV in TAE

Study participants were divided on the adequacy of the Certificate IV in TAE. There was general agreement that the TAE represents an adequate entry-level standard for VET teaching and assessing, and provides a solid basis on which other skills can be built. Where participants differed is in relation to whether the qualification should also be regarded as setting 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.

Evidence for and against such claims is elusive, partly because there are no unequivocal indicators of teaching quality in VET. Nonetheless, indirect evidence is available from research on school teachers, suggesting that teacher qualifications explain little of the variance in teacher effectiveness (gauged via measurable student outcomes). There needs, therefore, to be a rigorous quantitative analysis of the full range of trainer and assessor characteristics that can contribute to quality outcomes.

Based on the indirect evidence from the schools sector, the views of many study participants, and also on the high satisfaction ratings recorded by the VET sector, the Commission concludes that the Certificate IV in TAE, when well taught, represents a satisfactory minimum qualification for VET practitioners. Any new

VET practitioner should either hold the qualification, or be working towards obtaining it within two years of commencing employment. The Commission is seeking feedback on what might be regarded as a suitable period for existing VET practitioners to attain the Certificate.

Industry experts, for their part, should also be encouraged to hold a Certificate IV in TAE. However, it should not be mandatory, provided that any training they deliver is supervised by someone with the qualification.

Within two years of commencing delivery of training or assessment, enterprise trainers and assessors working under the supervision of someone with the Certificate IV should have completed the Skill Set relevant to their role.

The Commission has aimed to achieve a suitable balance between meeting minimum educational requirements and enabling effective VET workforce recruitment and workforce diversity.

Supervised training delivery

Although regulatory requirements for the Certificate IV require demonstrated competence in delivery, there are concerns about whether this competence is being achieved and about the rigour of assessment of this competence by the delivering RTO's own staff (see below). The Commission considers that extended supervised training delivery should be mandated as part of the Certificate IV in TAE, and be subject to external assessment.

Delivering the TAE

The Certificate IV in TAE constitutes a satisfactory minimum standard only when it is delivered in compliance with the requirements of the Training Package 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 TAE, the Certificate IV in Training and Assessment, reached a common conclusion that delivery by many organisations was non-compliant in one or more dimensions. These results align with the views expressed by many of the participants in this study.

There are indications that existing auditing activity by the state and territory regulators is insufficient. The Commission considers that there is a need for more frequent and more intensive auditing processes governing the ability of an RTO to deliver the Certificate IV in TAE. State and territory regulators should take early action to remedy this deficiency, with the forthcoming national VET regulator

taking up this responsibility in most jurisdictions at a later time. The Commission judges, further, that greater transparency of audit results is needed, to give consumers and funders of the services of RTOs greater confidence in the quality of the product on offer. Transparency would also incentivise providers to focus on the quality of training and assessment, and encourage quality of the auditors' activity.

Professional development to improve VET workforce capability

Rising demands and expectations being placed on the VET workforce underscore the need for continuous workforce development, both in terms of industry currency and formal qualifications (including teaching).

Professional staff development, undertaken in a variety of ways, is already a requirement of RTO registration under the AQTF. It is also provided for in TAFE enterprise agreements. Notwithstanding these requirements and provisions, evidence indicates that engagement of the VET workforce in professional development activities is uneven. Opportunities to acquire higher qualifications or greater industry currency are sub-optimal, especially for trainers and assessors (vis à vis other professionals), 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 twelve months.

Incentives could be provided, within the performance management system, for staff members to acquire additional qualifications in areas that are viewed by a provider as critical to the quality of its delivery — for example, higher-level teaching qualifications that support operations within the tertiary sector.

Would practitioner registration help?

A number of participants argued strongly in favour of mandatory registration of VET practitioners, as currently applies in the UK. One argument was that it would provide a vehicle for mandating and monitoring continuous professional development, as occurs with other professional registration schemes. For example, there are mandatory registration arrangements for school teachers in all states and territories.

De facto VET practitioner registration already applies in Australia through existing regulations that specify some key requirements. However, as noted, the legislated requirement of the AQTF that trainers and assessors in RTOs hold the Certificate IV in TAE (or equivalent qualification) is not rigorously enforced. Moreover, although RTOs are required to demonstrate workforce development as part of meeting their regulatory requirements, this again is not universally applied. 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.

Registration schemes have an administrative and compliance overhead that is usually funded through regular charges on employees, and can introduce barriers to the recruitment of skilled workers to the VET sector who do not immediately meet all the necessary requirements. The Commission considers 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 sources. 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, such as whether an employee is a trainer or a manager, is either inconsistent or missing entirely. Conversely, the same data are sometimes collected by a number of different bodies, adding to the response burden on the sector.

Lack of quality data is an obstacle to effective 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. There is a need for a new comprehensive instrument with which to better identify and measure the VET workforce, especially with respect to private sector activity. This instrument should be designed by the National Centre for Vocational Education Research and implemented in a way that does not unduly increase the response burden for providers, yet gives them, policy makers and other stakeholders access to an improved evidence base.

It would also assist all stakeholders in the sector to have a much clearer view of the future risks and opportunities associated with the VET workforce as a whole. It falls within the remit of Skills Australia to determine whether the size and skills profile of the VET workforce (among others aspects of VET) are broadly adequate to meet the skills priorities it has identified for the labour force as a whole. Skills Australia is currently engaging with the sector on this matter.

Draft recommendations, findings and information requests

Chapter 2 The VET sector

DRAFT FINDING 2.1

The emerging tertiary sector might improve pathways and education outcomes for students, including those who experience disadvantage, but it is important that these improvements not diminish the traditional strengths of the Vocational Education and Training (VET) sector.

Chapter 3 The VET workforce

DRAFT FINDING 3.1

The VET workforce can be characterised as follows:

- *a predominance of dual professionals, with both vocational and educational skills*
- *older than the wider labour force, as most VET workers gain industry experience before joining the sector later in their working life*
- *high rates of non-permanent employment, compared to the workforce*
- *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, should contribute to the aggregate supply of VET workers in the short and medium term.

Chapter 4 Government involvement in the VET sector

DRAFT FINDING 4.1

A move towards greater managerial independence for public sector VET providers is likely to better enable them to respond to the more competitive environment they now typically face. However, the adoption of a full corporate model for public sector registered training organisations (RTOs) is unlikely to be appropriate, given the number of non-commercial objectives public providers are likely to have, and the desire for governments to retain both ownership and control.

DRAFT FINDING 4.2

Increased use of explicit on-budget community service obligation payments to all VET providers (to compensate for provision of non-commercial activities) has the potential to improve transparency regarding the viability of Technical and Further Education (TAFE) institutes and other government-owned VET providers, while also improving competitive neutrality across providers.

Chapter 6 Implications of a changing environment for the VET workforce

DRAFT 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.

Chapter 7 Ensuring workforce capacity and efficiency

DRAFT FINDING 7.1

Consistent national data about the size and characteristics of the VET workforce are lacking. Many administrative collections exist, at both the provider and jurisdictional level, but they are incomplete, disparate and not widely used or disseminated. Lack of quality data is an obstacle to effective policy making and workforce planning at any level, and to efforts to improve the capacity and capability of the workforce.

DRAFT RECOMMENDATION 7.1

The Ministerial Council for Tertiary Education and Employment should engage the National Centre for Vocational Education Research 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, but not unduly increase the response burden for providers.

DRAFT RECOMMENDATION 7.2

The National Centre for Vocational Education Research should consider the information required to allow the critical determinants of quality teaching to be investigated quantitatively, and consider the best means of capturing student and industry satisfaction with the VET workforce.

DRAFT FINDING 7.2

Wage structures in the TAFE sector take no account of the relative scarcity of industry skills being sought. As a consequence, TAFE can find it difficult to attract and retain some VET trainers and assessors with particular industry skills without resorting to overaward payments, while other VET trainers and assessors may be paid more than is necessary to recruit and retain them as trainers and assessors.

DRAFT RECOMMENDATION 7.3

State and Territory governments should not have jurisdiction-wide industrial agreements for the TAFE sector. Current arrangements include caps on the use of casual staff, are prescriptive on hours to be worked in TAFE and encourage uniform wages and conditions. These have the effect of limiting the ability of TAFEs to respond quickly to changes in demand and disadvantage them relative to private RTOs. TAFE institutes should be able to select the mix of employment arrangements, supported by contemporary human resource management practices, that best suits their business goals.

Chapter 8 Ensuring workforce capability

DRAFT RECOMMENDATION 8.1

The Certificate IV in Training and Education (TAE40110) should maintain its status as a high risk qualification. Auditing by state and territory regulators of RTOs with this qualification on their scope needs to be more frequent and more intensive.

DRAFT RECOMMENDATION 8.2

State and territory regulators should publish information on audit outcomes and performance indicators for RTOs, to further incentivise providers to focus on quality training and assessment.

DRAFT RECOMMENDATION 8.3

Industry and Business Skills Australia 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 consecutive supervised training sessions. An assessor from outside an RTO delivering the unit should evaluate a student's competence through observation of two of these sessions.

DRAFT FINDING 8.1

On balance, the Commission concludes that the Certificate IV, when well taught, is an appropriate qualification for the development of essential foundation competencies for VET practitioners.

DRAFT FINDING 8.2

Many people actively engaged in the VET sector as trainers and assessors do not have the necessary minimum educational qualification of the Certificate IV in TAE or an equivalent qualification.

DRAFT RECOMMENDATION 8.4

Within two years of commencing employment, VET practitioners should have completed the Certificate IV from TAE10. Industry experts, working under supervision, should be encouraged but not required to obtain a Certificate IV in TAE. Within two years of commencing delivery of training or assessment, enterprise trainers and assessors working under the supervision of someone with the Certificate IV, should have completed the Skill Set relevant to their role.

DRAFT RECOMMENDATION 8.5

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 and charging an Indigenous HR manager with attracting, coordinating and retaining Indigenous employees across their organisation. 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.

DRAFT FINDING 8.3

Considering the educational capabilities of the VET workforce:

- *There is little evidence of the VET workforce currently having capability gaps in delivering training and assessment to students who may experience disadvantage. However, this is an area of considerable exposure for the VET sector in the future, with an ageing workforce and an anticipated increase in VET delivery to disadvantaged students.*
- *There is tentative evidence of capability gaps relating to delivery of higher-level qualifications.*
- *There is evidence of a significant capability gap in ICT 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 RPL and RCC.*
- *There is evidence of capability gaps among VET managers and leaders.*

DRAFT FINDING 8.4

Industry currency is not well-researched or understood. While 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. Continuing professional development systems need to identify and address these gaps.

DRAFT RECOMMENDATION 8.6

State and Territory governments should assess the adequacy of funding provisions for ongoing professional development of their VET workforce. Non-government RTOs should identify capability needs within their workforces and target funding accordingly. Professional development should be a joint responsibility of RTO employers/owners and employees. Industry and Business Skills Australia should consult with the sector and develop options for ongoing professional development that address competency gaps and/or contribute to further capability development.

DRAFT RECOMMENDATION 8.7

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

Information requests

Are VET providers (public or private) compensated for pursuing non-commercial objectives requested by governments? If so, does the level of compensation accurately reflect additional costs? What form does this compensation take? Is it transparently identified in government budget documentation and as income by providers?

The Commission seeks further input on whether VET-in-Schools teachers should be required to have the Certificate IV in Training and Education.

The Commission seeks further input on the effects of the introduction of the modern award on industrial relations settings and performance incentives in private VET providers.

The Commission seeks further information on any quantitative studies, with a focus on Australia, that seek to identify the relationship between the characteristics of trainers and assessors with the quality of student outcomes.

The Commission seeks information on the ability of RTOs delivering the Certificate IV in Training and Assessment to significantly increase their scale of delivery while also improving quality and compliance. It would also welcome information on the ability of state and territory regulators to more intensively audit and enforce compliance in the event of an increase in the number of RTOs delivering the Certificate IV. Finally, the Commission seeks views on the appropriateness of increasing from two to five years the transition period during which existing VET practitioners should be required to gain a full Certificate IV.

The Commission seeks input in the form of quantitative evidence on the relationship between teacher qualifications and teaching quality by level of qualification.

The Commission would welcome information on the additional knowledge and skills required by VET practitioners delivering within workplaces, and evidence on whether or not the workforce has adequate capability in this area.

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

Following a second round of submissions and consultations, a final report on the VET workforce will be submitted to the Australian Government by April 2011, and published shortly thereafter. Subsequently, final reports on the ECD and Schools workforces will be submitted to the Government and published according to the following schedule:[1]

- Early Childhood Development workforce: October 2011
- Schools workforce: April 2012.

1.1 What the Commission has been asked to do

Under the terms of reference, the Commission is 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
- factors of notable significance for that particular workforce.

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

In addition, the Commission is 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 dual-sector providers or major collaborations.

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, the Commission will also comment 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 common with other sectors such as health and social services, the performance of the VET sector and that of its workforce are intrinsically linked. Writing about the Technical and Further Education (TAFE) segment of VET, one participant noted that:

> … 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)

In a high-skilled, labour-intensive activity 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. 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; and maintain and develop their own pedagogic skills.

However, unlike most of their counterparts in other education sectors, VET teachers, trainers and assessors are 'dual professionals', with capabilities recognised in both education and industry spheres. In addition to their educational capabilities, they 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

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

assessors, that enhances the relevance and value of the competencies that they impart to their students.

Importance of the VET workforce in special settings

The VET workforce is in a position to contribute to social inclusion of both young people and adults.

VET trainers and assessors operate in a wide variety of settings, from educational institutions to workplaces and community organisations. In remote areas, they might even work in correctional facilities or from the back of a mobile classroom in the bush. VET trainers and assessors tend, as a result, to be very conscious of their students' environments, backgrounds 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, non-English speaking, migrant, low Socio-Economic-Status (SES), rural or remote. 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, teachers, trainers and assessors must be sensitive to the distinctive needs of individuals, and also the setting in which the teaching is taking place. If 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 using open, transparent and public processes, and with an overarching concern for the wellbeing of the Australian community as a whole.

The Commission published an Issues Paper 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 and Canberra, to further assist with analyses contained in the draft report.

A total of 59 submissions have been received since this study was announced, 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 draft report.

1.5 Other research initiatives in this area

The Commission has taken account of recent work of relevance to the VET workforce, and has followed up 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, underpins a consultation process, starting in October 2010. The process seeks feedback on a range of issues regarding VET, through public meetings and submissions. Based on this feedback, Skills Australia will make recommendations to the Australian Government in early 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 in

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

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

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 submission 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 current institutional architecture and of the increasing role of market forces in the sector.
- Chapter 5 discusses expectations of the VET sector held by students and industry, 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.
- Chapters 7 and 8 examine, in turn, the areas of capacity and efficiency, and capability of the VET workforce. Informed in part by data and analyses presented earlier in the report, these two chapters identify key issues and propose solutions to enhance the performance of the VET workforce.

- Chapter 9 concludes by drawing together the key proposals formulated in the two preceding chapters, and advises on suitable timing and sequencing for the implementation of these proposals.

2 The VET sector

Key points

- The Commission restricts its definition of the VET sector to include only the activity of Registered Training Organisations.
- The best available data on the activity of the sector are primarily concentrated on publicly-funded VET provision, with gaps in available information on fee-for-service provision.
- The VET sector is characterised by its very great diversity in a number of dimensions: ownership; funding; course offerings; student profiles; location and delivery modes.
- VET plays a prominent role in Australia's education sector, 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.

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 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 state 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).

Box 2.1 History of apprenticeships in Australia

The history of apprenticeships in Australia stretches 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 institutions (TAFEs) to upgrade facilities and 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).

In the 1970s, 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 on the national agenda. While 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.

The Technical and Further Education (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. In the late 1980s, the concept of a 'training market' emerged within the Australian Government's microeconomic reform strategy (Anderson 1997). The Deveson Review (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).

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). 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 body that oversees quality assurance, and ensures national consistency in the application of the AQTF standards for the audit and registration of RTOs, is the National Quality Council (NQC). 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 2009, 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, and 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).

Under the NTF, competency standards were set out in Training Packages, which provide national competency-based qualifications. Training Packages, of which the first were endorsed in 1997, describe the skills, knowledge and other attributes, needed to be competent in the workplace (Guthrie 2009). 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 included within the VET sector. Another approach would be to focus only on accredited training, that is, AQF qualifications and courses.

Reflecting this potential range, some stakeholders equate VET with the delivery of accredited training, while others take a much broader view (box 2.2).

Box 2.2 Stakeholder views on definitions of the VET sector

There can be subtle variations in the definition of the VET sector, as shown by the following quotes:

> VET is a national system designed to skill workers to work in particular industries. VET is underpinned by a National Training Framework … VET works on a nationwide level, covering four levels of Certificate, Diplomas and Advanced Diplomas within the Australian Qualifications Framework. (DET Queensland, 2010)

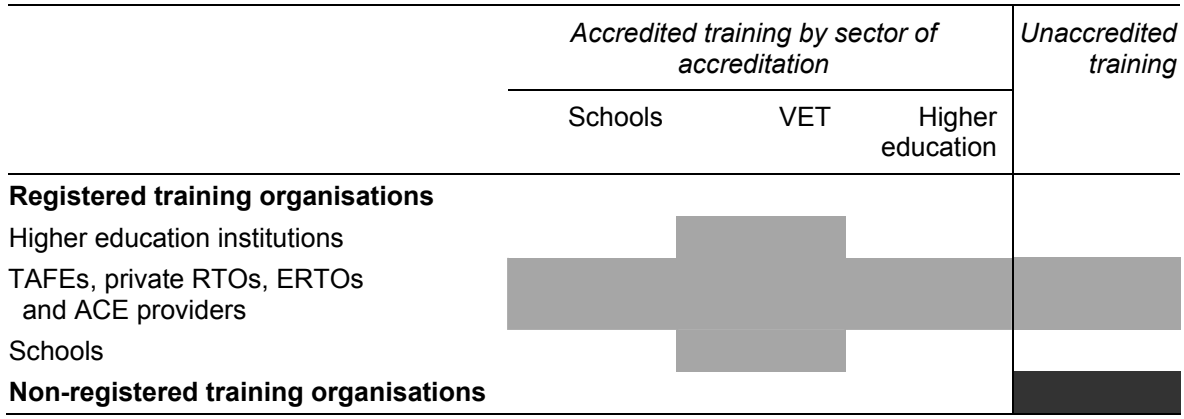
> [VET comprises] post-compulsory education and training, excluding degree and higher level programs delivered by further education institutions, which provides people with occupational or work-related knowledge and skills. VET also includes programs which provide the basis for subsequent vocational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

> VET programs can be recognised (that is, accredited) or unrecognised (unaccredited, such as proprietary certification). Recognised education and training is categorised using the Australian Qualifications Framework … (Knight and Mlotkowski 2009, p. 10)

> [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 will restrict its definition of the VET sector to all provision by specialised VET providers, such as TAFEs and private RTOs; non-specialised VET providers — enterprise RTOs (ERTOs) and Adult Community Education (ACE) providers; and accredited, VET-specific, activity in the schools and higher education sectors (figure 2.1). VET activity, under the Commission's definition, is undertaken in all instances by an RTO.

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



[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.

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
- create new accredited courses in response to specific demands
- register on the Commonwealth Register of Institutions and Courses for Overseas Students to provide courses to overseas students studying in Australia (DEEWR 2010i).

The Commission proposes *not* to include within its working 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 does take it outside of 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. As such, the Commission does not consider this form of activity to be in-scope for this study.[1]

[1] A difficulty arises, in that some VET trainers and assessors may 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.

While the Commission has proposed a definition of the VET sector that includes all RTOs, including activity funded from private sources such as students and industry, data availability will further constrain the extent to which the Commission can fully consider the VET sector as defined. The scope of the best available data on the activity of the sector, provided by the NCVER, unfortunately only covers the publicly-funded VET system (figure 2.2). 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 will be used throughout this report.

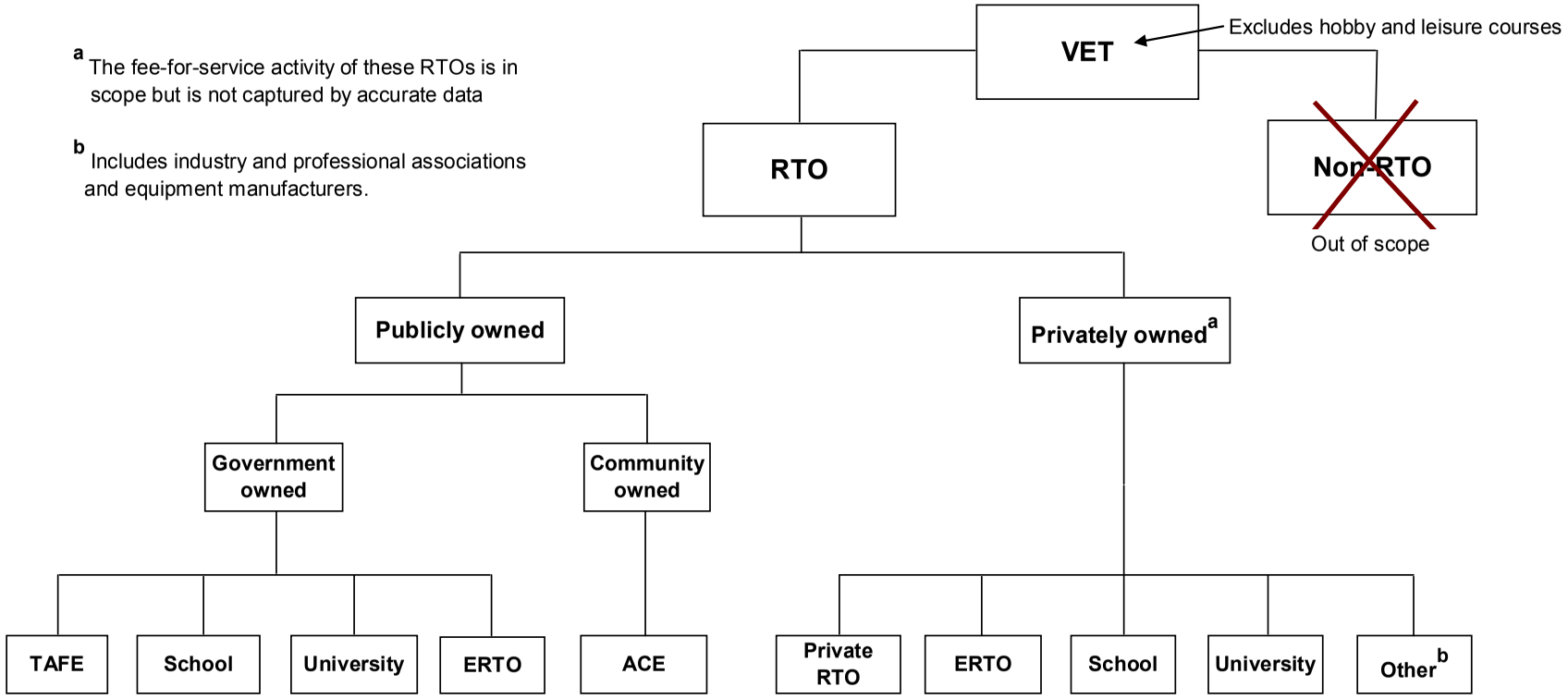
2.3 The VET sector today

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 (in the VET or the higher education sectors). However, a large number of students in the VET sector do not follow this typical path. The large number of VET providers (about 5000) 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).

Figure 2.2 **The Commission's proposed definition of the VET sector**



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 2010f)
- the schools sector educated about 3.5 million students in 9 500 schools (ABS 2009e).

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

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 in ownership

Almost 5000 RTOs, both public and private, deliver VET today. In the public sector, there are to 59 TAFEs and polytechnics delivering in over 1300 locations, 345 schools, 11 universities, 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 provider RTOs has grown rapidly since 2005, when they numbered about 2500 (DEEWR 2010 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 through a succession of 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.

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 2.1).

Table 2.1 **Hours of delivery in the publicly-funded VET system, by major funding source, 2008**

Funding source	*Hours of Delivery*
	%
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 much more significant. Indeed, fee-for-service is the dominant source of funding for private providers (table 2.2).

Table 2.2 **Government recurrent and fee-for-service training revenue, government and private VET providers, 2008[a]**

	TAFE and other government providers	*Private providers*[b]
	$ million	$ million
Government recurrent funding	3 645	455
Fee-for-service	991	2 075
Total	4 636	2 530

a Estimates only. **b** Includes privately-owned ERTOs and private RTOs receiving public funding.

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

Diversity in 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 learner 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 learners 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). Like the publicly-funded VET system, delivery at certificate level makes up the bulk of course enrolments in private providers and ERTOs (table 2.3).

Table 2.3 AQF level of study undertaken, portions of the VET sector[a]

	Publicly-funded VET system	*TAFE and other government providers*	*Private (including ERTOs)*	*ERTOs (public and private)*
	'000	'000	'000	'000
Certificate level enrolments	1 362[b]	845[b]	598[c]	78[d]
Diploma or higher enrolments	223[b]	185[b]	307[c]	12[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] ERTOA estimates of number of issued qualifications in 2008.

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

The enrolments captured in data on the publicly-funded VET system show the wide range of fields in which students enrol (table 2.4). The largest proportions of enrolments are in 'Engineering and related technologies' and 'Management and commerce'. It is these fields which also attract the largest proportion of apprentices and trainees, accounting for 35 per cent and 21 per cent, of Australia's total respectively (NCVER 2010b).

Table 2.4 **Course enrolments by field of delivery, publicly-funded VET, 2009**

Field of delivery (course)	*Course enrolments*
	%
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, comprises a mixture of young students from school and post-secondary education, with the largest cohort aged between 25 and 44. There is also a representation of students in the 45 to 64 age group (table 2.5).

Table 2.5 **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 (2010d).

While 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 2.6). Removing VET-in-Schools (VETiS) students from the total shows that 21 per cent of VET students have left school before completing Year 12.

Table 2.6 **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 estimates 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 2.7).

Table 2.7 **Proportion of students from equity groups, 2008**

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 2010f.

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).

Private providers deliver relatively more of their output (compared with public providers) to Indigenous students. Public providers (including government and ACE providers) deliver relatively more of their output to students with a non-English speaking background and students who reported disability. (NCVER 2010h).

The private sector is also the dominant source of provision in the market for international students. Data from Australian Education International show that, of the 232 500 international students (37 per cent of Australia's total number of international students, across all education sectors) who studied in Australia's VET sector in 2009, over 80 per cent (192 300) studied with private providers (table B.21).

One important characteristic of students in the publicly-funded VET sector is that a high proportion study part-time. In 2009, 86 per cent of students in the publicly-funded VET system were in that category (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 begin VET already employed. For example, in 2009, 75 per cent of graduating VET students had been employed at the time of commencing VET (NCVER 2009d).

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).

Diversity of location and delivery

VET is delivered in different locations across Australia and is particularly important in rural and remote areas. While 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). 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 regions.

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 delineates the qualifications that each type of educational institution can deliver (table 2.8), 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 2.8 **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 2008, there were 220 000 VETiS students, representing 41 per cent of school students undertaking a Senior Secondary Certificate. VETiS students comprised:

- 25 700 school-based apprentices and trainees
- 194 200 students enrolled in other VETiS programs.

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, recent years have seen a 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';[2]
- 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 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 12 universities that are RTOs (table B.1), alongside 11 TAFEs (as well as the whole of the New South Wales TAFE system) that are registered as higher education providers. There are also 80 private providers registered to deliver both VET and higher education (Wheelahan 2010b).

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

[2] 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.

> 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, IBSA pointed out 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:

> 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)

> 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)

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). However, the creation of pathways does not imply the need for more 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). This form of tertiary education linkage holds the promise of better progression and outcomes for students, without creating the risk that resources might be wasted through duplication and inefficient vertical integration. For VET to move too far from its traditional strengths and training focus might prove counterproductive for the sector and its clients.

DRAFT FINDING 2.1

The emerging tertiary sector might improve pathways and education outcomes for students, including those who experience disadvantage, but it is important that these improvements not diminish the traditional strengths of the Vocational Education and Training (VET) sector.

Box 2.5 **Western Riverina Higher Education Project**

The Western Riverina Higher Education Project is a project 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 culminate in 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

CSU and the RI have also signed a Statement of Intent in November 2008 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.

3 Profiling the VET workforce

Key points

- The Vocational Education and Training (VET) workforce comprises 73 900 Technical and Further Education (TAFE) employees and an estimated 72 800 to 541 000 people working in other non-TAFE providers, with a mix of trainers and assessors, other professionals and general staff across the public and private sectors.
- 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 TAFE trainers and assessors, and 36 per cent of non-TAFE trainers and assessors, are employed on a non-permanent basis, compared to 25 per cent of the labour market on average. 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 for the labour market, as 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, many VET trainers and assessors do not hold either a qualification specialising in VET teaching or equivalent educational qualifications.
- 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 trainers and assessors in VET 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.
- 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. Only 7 per cent intend 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.

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 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. Staff might be employed in Technical and Further Education (TAFE) institutes, private training organisations, secondary schools or dual-sector universities, as well as in enterprises outside the formal education and training industries.

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

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. This identity as a 'dual professional' has implications for trying to locate and measure the full scope of the VET workforce, because 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

1 More detailed data are presented in appendix C.

a VET practitioner — their involvement in VET might be overlooked. 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 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

For the purposes of this study, the Commission has defined the different groups that constitute the VET workforce, based on a combination of workers' occupational and industry characteristics. Drawing on the definitions adopted by Dickie et al. (2004), these groups reflect the breadth of ways in which workers are involved in the sector:

- *VET teachers, trainers and assessors*[2] — 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 might be further differentiated into three categories, as follows:
  - *VET practitioners* — trainers and assessors with a substantive involvement in VET delivery, whether employed on a permanent, sessional or casual basis. They might be expected to be suitably skilled in the practices of teaching, training and assessment, and also to possess sound industry currency.
  - *Enterprise trainers and assessors* — trainers and assessors who deliver accredited training within their (non-education specialised) enterprise. They, too, might be expected to be skilled in training and assessment, and possess sound industry currency for the purposes of their enterprise's activity.
  - *Industry experts* — industry workers who contribute to training or assessment in VET by transferring their specialised industry knowledge. They are expected to have high knowledge of current industry practice, but might not be required to be as deeply skilled in training and assessment as VET practitioners. They are also likely to have a more marginal attachment to the VET sector than practitioners. For example, while still working in their respective industry, they might take on a training role in a VET provider on a one-off or occasional basis. In practice, industry experts are likely to be

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

difficult to locate within data collections, because VET training is unlikely to be their main job.

- *Other VET professionals* — 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* — 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.

Although these different categories recognise the diversity of roles within the VET sector, the different groups of workers should still be considered complementary and integrated parts of a total VET workforce.

3.2 Size of the VET workforce

As noted by other researchers, measuring the VET workforce is a complex task (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 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).

Robust estimates of the VET workforce are not available. Reliable data on the TAFE sector drawn from administrative payroll sources indicate that Australia's TAFE system currently employs about 74 000 workers in 2008–2010 (table C.2). Data sources which provide a breakdown of the TAFE workforce by job role indicate that, for every two trainers and assessors in the TAFE sector, there is approximately 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 Registered Training Organisations (RTOs) — are more scarce and less reliable. On the basis of the range of estimates presented in table C.1, the

non-TAFE workforce is estimated to number between 72 800 and 541 000.[3] Information provided by the Australian Council for Private Education and Training (ACPET, sub. 50) suggests the size of the workforce employed by all private RTOs — a subset of the non-TAFE sector — is about 150 000.[4] The lack of precision of workforce estimates for the non-TAFE sector reflects the fact that, currently, there is no standard system of data collection for the VET workforce nationally. Within the non-TAFE sector, there is roughly one worker employed as an other VET professional or general staff member for every assessor or trainer (table C.3).

3.3 Characteristics of the VET workforce

Location

State or territory

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 state'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).

Region

The regional distribution of the VET workforce aligns closely with that of Australia's labour force and total population more generally, with the majority of VET workers concentrated in the most densely populated areas (table C.5). VET trainers and assessors, in particular, are heavily concentrated in major cities and inner regional areas. This is strongly apparent for non-TAFE providers. Fewer than

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3 Notes accompanying table C.1 in appendix C provide an explanation of the Productivity Commission's estimates of the lower and upper bounds of the size of the non-TAFE workforce.

4 Based on the survey responses of 497 private RTOs (a response rate of 12 per cent), ACPET reports 95 800 full-time equivalent staff employed in all private RTOs in May–June 2010 (sub. 50, p. 2), which the Commission estimates to translate to about 150 000 employed workers annually.

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.

The distribution of VET trainers and assessors, however, does not align with the distribution of VET students, at least based on enrolments in the publicly-funded VET system. In more remote areas, the ratio of trainers and assessors to students tends to be lower. For every 100 students in major cities, there are 26 TAFE and 80 non-TAFE trainers and assessors (data not shown). These ratios are roughly halved in remote and very remote locations.

Employment arrangements

Labour force status and hours worked

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.6). 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 working week of 35 hours.

In the TAFE sector, data are only available on a full-time/part-time basis for permanent and ongoing staff. The data suggest that about 25 per cent of trainers and assessors are employed on a part-time, rather than full-time basis, when allowing for multiple job-holders and omitting casual and contract staff (table C.6). Rates of part-time employment would be expected to be higher among casual and contract staff. Rates of part-time employment of TAFE workers vary across jurisdictions. New South Wales has the lowest share of ongoing part-time workers (as a proportion of ongoing workers), while the Northern Territory and South Australia have a higher proportion of part-time workers. Average hours worked for the TAFE sector are unavailable.

Compared with trainers and assessors, part-time employment is relatively less common among other VET professionals and general staff, except with respect to other VET professionals in the TAFE sector, for whom part-time rates are higher than those of TAFE trainers and assessors.

Form of employment

Survey data indicate that a maximum of two-thirds of trainers and assessors in the non-TAFE sector are employed on a permanent or ongoing basis (data not shown)

(DEEWR 2010h).[5] 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 2010h).

About 60 per cent of TAFE trainers and assessors were employed on a non-permanent basis in 2008 (table C.7). There was considerable variation across jurisdictions. Most notably, Tasmania had fewer than 20 per cent of trainers and assessors employed on a non-permanent basis, whereas other jurisdictions had between 50 and 70 per cent employed on that basis (table C.7). Inter-jurisdictional differences in the use of non-permanent staff are partly explained by regulatory arrangements governing the use of casual staff in the TAFE sector (chapter 7).

More recent administrative TAFE data provided to the Commission by the jurisdictions suggest that there is still a high use of casuals in the roles of trainers and assessors in the TAFE sector, with significant variation across jurisdictions. The Commission expects to be able to present a more detailed analysis of the casual TAFE workforce in the final report.

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.8).[6] Among trainers and assessors, multiple job-holding is slightly more prevalent in the non-TAFE sector than in the TAFE sector.

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5 The data include multiple job-holders but under-estimates the share of VET workers who are non-permanent employees, because they are likely to be under-represented in the survey sample. For this reason, the share of workers who are employed on a permanent basis should be treated as an upper-bound estimate.

6 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.

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.

Income and wages

Among 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.9). The gap between full-time and part-time average incomes was narrower in the TAFE sector, although this could be due to differences in the average number of hours worked. 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.

Preliminary estimates by the Commission using survey data suggest that VET trainers and assessors employed on a casual basis earn higher hourly wages than those in other modes of employment (figure 7.1). This differential is partly attributable to the fact that wage instruments typically include a casual wage loading for course preparation and marking (chapter 7).

The Commission expects to be able to present a discussion of the incomes of TAFE workers in the final report, which will allow for cross-jurisdictional variation.

Qualifications

Level and field of qualification

In the TAFE sector, nearly all VET trainers and assessors hold a post-school qualification (table C.10). In the non-TAFE sector, by contrast, almost 20 per cent of trainers and assessors do not hold a post-school qualification. Among all trainers and assessors with a post-school qualification, those employed in the TAFE sector generally have a higher qualification level than those in the non-TAFE sector. In the non-TAFE sector, about 60 per cent of trainers and assessors have a Diploma or undergraduate-level qualification or above. In the TAFE sector, in comparison, this proportion is about 70 per cent.

In terms of their highest qualification level, about half of all trainers and assessors in the TAFE sector have a qualification in the field of education (table C.11). This

compares to about 20 per cent of those in the non-TAFE sector. The actual number of trainers and assessors holding a qualification in education, however, will be higher than these figures suggest, because these data only reflect the highest qualification attained.

Teaching qualifications

It appears that many individual VET trainers and assessors do not possess the Certificate IV in Training and Education (TAE) or equivalent educational qualifications. One estimate from the NCVER puts the percentage of trainers and assessors with some type of teaching qualification at about 42 per cent in TAFEs and 8 per cent in the non-TAFE sector, drawing upon 2005 ABS survey data (Guthrie and Mlotkowski 2008). The Commission is to investigate this issue further for the Final Report.

In terms of their highest qualification, a small share of VET trainers and assessors report holding a qualification specialising in VET teaching education: 5 per cent of trainers and assessors in the TAFE sector and fewer than one per cent in the non-TAFE sector (table C.12). In terms of teaching qualifications to meet the needs of particular students, fewer than one per cent of trainers and assessors in either sector hold their highest qualification in special education or teaching English as a second language (table C.12). However, the actual share of trainers and assessors holding these specialist qualifications will be higher than these figures suggest, because the majority hold other qualifications, generally reflecting their industry expertise, at a higher level than their teaching qualifications.

Demographic characteristics

Age

The VET workforce — particularly the TAFE workforce — is older than the overall labour force. The average age of trainers and assessors is 48 years in the TAFE sector and 44 years in the non-TAFE sector (table C.13). 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.

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.14).

Sex

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.15). In both the TAFE and non-TAFE sector, 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.16).

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.17). 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.18). 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.19). This figure was the same for the TAFE and non-TAFE sector, and was very close to

the labour market average of 0.6 per cent based on the same definition and data source.

According to TAFE administrative data for 2008, about 3 per cent of TAFE workers report having disability (table C.20). This differential can be attributed, in part, to differences in definitions. Within jurisdictions, Queensland reported the highest rate of disability in its TAFE workforce.

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.21). 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.22). 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 survey data for the VET sector from 2006 (Simons et al. 2009) and 2010 (DEEWR 2010h), and on unpublished administrative data for TAFEs from 2009. Quantitative analysis of factors that determine the duration of workers' careers in TAFE is based on administrative data.

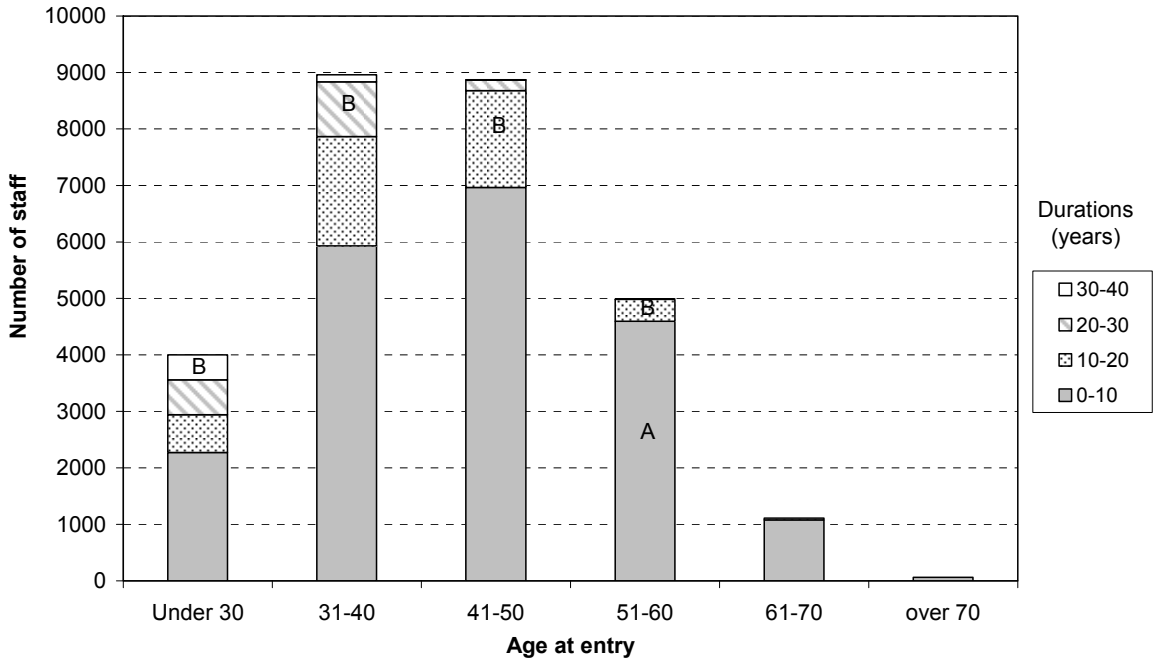
Entry into VET

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.23).

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.24).

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 employees recorded as working in a TAFE institute in 2009, 64 per cent joined their institute when between 31 and 50 years of age, and a further 22 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 partial retirees) entering the sector.

Figure 3.1 **Employment duration by age at entry into TAFE teaching, 2009[a]**



a Recent inflows, aged 51–70, are labelled A and potential outflows in the near future, aged 51–70, are labelled B.

Source: Productivity Commission estimates based on TAFE administrative data supplied by all jurisdictions except the Northern Territory. Data from New South Wales, although received, have not been included in the analysis due to time constraints. They will be incorporated in the final report.

Moreover, the influx of short-tenure older workers in the 51–70 entry age group (those labelled A in figure 3.1) is larger than the cohort of workers with longer tenures who are now approaching retirement (labelled B). This suggests that retirement of the long-tenured cohort in the next ten years — if it were to happen — might be more than offset by another inflow of older entrants into the VET workforce, assuming that the current patterns continue.

As mentioned, workers surveyed in 2006 joined the VET sector under a variety of employment arrangements. Trainers and assessors took up a mix of permanent (or ongoing) positions, fixed-term and casual positions (table C.25). 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. The use of contracted staff across the VET sector appears small.[7]

7 This is on the assumption that contractors are labelled as self-employed consultants and are employed on a non-fixed-term contract.

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.26).

Prior to entering the sector, 73 per cent of VET workers were employed elsewhere in the labour force (table C.27), with the most common origin industry being education and training (table C.28). Trainers and assessors also typically came from health care and social assistance, and traditional areas, such as retail trade, manufacturing and hospitality. 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 also 27 per cent of workers who did not have a job prior to entering the VET sector.

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 percent 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 enterprise RTOs) had a shorter average tenure of about 5 years, compared to that for TAFE at more than 10 years.

Table 3.1 **Tenure in VET by current position and employer, 2010**

	Trainers & 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 (no.)	883	506	324	1713
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 (no.)	298	245	88	631
Other RTOs[a]				
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 (no.)	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 (no.)	1435	973	512	2920

a Comprises respondents from Enterprise RTOs, Adult Community Education and other RTOs.

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

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.29). On average, workers changed jobs about three times during their career, with little variation across groups. 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.30).

Mobility data for 2010 indicate that 73 per cent of VET trainers and assessors who joined the VET sector as casuals or fixed-term employees eventually became permanent or ongoing (table C.31). 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 all workers to move from part-time positions into full-time positions (table C.32).

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.

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.33). 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.34).

Exits from VET

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.35).

Intentions to exit the VET workforce reach a peak of only 20 per cent for the group currently aged 65 years and over, and most of these individuals intend to retire over the next year (table C.36).[8] Retirement is much less prevalent as an intended reason to exit the VET workforce for the younger age group. Although 25 per cent of the group aged 55–64 expressed an intention to leave within 12 months, only 3 per cent intended to do so for reasons of retirement.

However, 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 not to leave the VET sector in the next 12 months.[9]

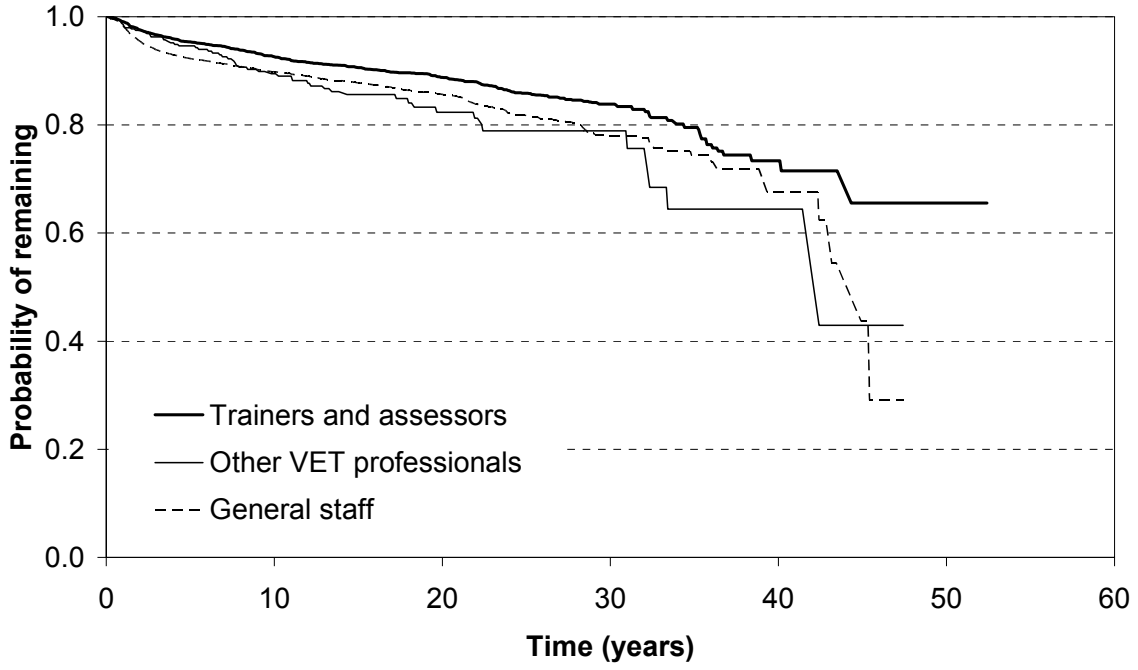
8 Further, survey data for 2006 showed that around 60 per cent of workers aged over 60 years intended to remain in the sector for the next 5 years (Productivity Commission estimates based on unpublished data from Simons et al. (2009)).

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

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.37). Based on these figures, early retirement of VET workers does not seem to be a problem.

As measured by the height of the curves in figure 3.2, in the first 30 years of employment with an institution, other VET professionals are most likely to leave and trainers and assessors the least. At around 45–55 years of employment, very few trainers and assessors leave TAFE, as reflected in the flat sections of the relevant curve. The initial drop in the probability of general staff remaining in the same TAFE institute mostly reflects completion of short-term contracts.

Figure 3.2 **Probability of remaining in TAFE**



Source: Productivity Commission estimates based on TAFE administrative data supplied by all jurisdictions except the Northern Territory. Data from New South Wales, although received, have not been included in the analysis due to time constraints. They will be incorporated in the final report.

Factors influencing career durations in TAFE

The Commission has used multivariate modelling to identify the factors that affect workers' career durations in TAFE. Preliminary modelling points to a range of factors that are significantly associated with job duration. The findings have implications for retention strategies.

When controlling for other sources of difference, TAFE workers are (10 per cent) less likely to leave a job in TAFE as they get older by one year, although the strength of this effect declines with age (table 3.2).[10] Males, for their part, are 27 per cent more likely to leave than females.

Table 3.2 **Factors affecting exits from TAFE in 2009**[a]

Variable	*Relative risk of exit*[b]
Age	0.9001 ***
Age squared	1.0008 ***
Male	1.2671 ***
Weekly hours	0.9746 ***
Hourly wage	0.9554 ***
Ongoing	0.1699 ***
Victoria	0.6126 ***
Queensland	0.0360 ***
South Australia	0.3627 ***
Western Australia	0.6888 ***
Tasmania	0.1768 ***
Trainers and assessors	0.7413 ***
Other VET professionals	2.0048 ***

[a] A full set of results is available in table C.38. [b] The hazard ratio, indicating the proportionate change in the risk of exit. A value less than one indicates a lower probability of exit as the associated variable increases. For example, the probability of exit is 10 per cent lower (that is, 90 per cent) as age increases by one year. *** Significant at the 1 per cent level.

Source: Productivity Commission estimates based on TAFE administrative data supplied by all jurisdictions except the Northern Territory. Data from New South Wales, although received, have not been included in the analysis due to time constraints. They will be incorporated in the final report.

As hours worked increase, individuals become less likely to leave TAFE. This could reflect greater satisfaction with full-time than with part-time positions. Increases in hourly wages make TAFE positions more attractive, relative to competing positions, reducing the probability of exit to more lucrative jobs. Ongoing staff are 83 per cent less likely to leave than staff on fixed-term contracts.

Relative to general staff (the omitted category), trainers and assessors are significantly less (26 per cent) likely and other VET professionals more (100 per cent) likely to leave a job in TAFE. Individuals who work in the ACT (the omitted category) are more likely to leave jobs in TAFE than their counterparts in the other jurisdictions. TAFE workers in Queensland are those least likely to leave a TAFE job. Differences in job duration across jurisdictions might be due to a number of factors, including differences in regulatory arrangements and superannuation.

[10] Details of the modelling are given in appendix C. A full set of results is available in table C.38.

The VET workforce can be characterised as follows:

- *a predominance of dual professionals, with both vocational and educational skills*
- *older than the wider labour force, as most VET workers gain industry experience before joining the sector later in their working life*
- *high rates of non-permanent employment, compared to the workforce*
- *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, should contribute to the aggregate supply of VET workers in the short and medium term.

4 Government involvement in the VET sector

Key points

- Governments become involved in the market for VET services for a number of reasons, including to:
  - overcome market failures relating to the broader community benefits of education, information limitations about the quality of education, public good characteristics and perceived problems with credit markets
  - ensure equitable access to VET, and increase participation for disadvantaged groups
  - ensure that the VET sector is cognisant of, and responds to, broader labour market and other government priorities.
- Governments are involved in the sector through direct funding, provision of information, mandating of 'training wages' for apprentices and payment of student assistance.
- In recent years, there has been a trend towards increased use of user pays and user choice principles. These trends are likely to continue.
- As the VET sector becomes increasingly competitive, greater managerial independence for public sector VET providers will enable them to better respond to the changing environment.
- The use of explicit on-budget community service obligation payments for these providers has the potential to improve transparency regarding their viability, and to improve competitive neutrality across providers.

This chapter discusses the reasons why governments become involved in the Vocational Education and Training (VET) sector and the nature of their involvement. The public and private benefits of education and training are discussed in section 4.1. Section 4.2 explores the role of governments in the sector, including a brief examination of why governments are involved. There is discussion of the current institutional architecture in section 4.3, and section 4.4 considers the growing role of market forces in the sector and the recent policy shift towards promoting greater contestability and competition.

4.1 Public and private benefits of education and training

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

Private benefits are predominately those captured directly by recipients of education and training. A number of studies have found private financial returns to education to be significant. For example, Forbes et al. (2010) found that higher levels of education were associated with significantly higher wages. Compared with a person with a Year 11 education or less, on average:

- a man with a Year 12 education earns about 13 per cent more, and a woman earns about 10 per cent more
- a man with a Diploma or Certificate earns about 14 per cent more, and a woman earns about 11 per cent more
- a university education adds about 40 per cent to men's and women's earnings.

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) would be associated with an increase in hourly wage rates of about 30 and 25 per cent for men and women respectively.

The payment of higher wages to people with higher levels of education reflects that they are likely to be more productive than people with lower educational attainment. Private benefits also accrue to enterprises from either providing education and training directly to their employees, or from purchasing education and training on their behalf.

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

- benefits to third parties stemming from investment in education which then results in higher economic growth. This type of macroeconomic effect arises due to accelerating rates of innovation, the greater uptake of technological improvements and workers' acquisition of further skills (Heckman 1999; PC 2006)
- returns to employers who benefit from training funded by others, perhaps through the poaching of trained employees ('free riding')

- community health benefits (other than those accruing to the person being trained) stemming from increased knowledge of beneficial or harmful activities (OECD 2007)
- benefits relating to social cohesion and unity (Burke 2002; Gradstein and Justman 2002)
- assistance in supporting the functioning of a democracy (Barro 1999)
- an inverse association between educational attainment and criminal activity (Wolfe and Haveman 2000).

The last three 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 the VET or higher education sectors.

4.2 The role of government in VET

Were the market for VET services left to operate as a 'free market', with no government involvement, it would likely contain a mix of enterprises delivering education and training to their own workforces, and specialised private providers (both for-profit and not-for-profit) delivering education and training to enterprises and individuals. In such a market, there would be a number of 'market failures', with outcomes being sub-optimal from a community-wide perspective.

Externalities and underprovision

To address concerns about potential under-provision of VET in a free market (where externalities are not fully captured directly by individuals and enterprises), governments directly and indirectly subsidise the provision of VET services. Recurrent expenditure on VET by Commonwealth, State and Territory governments totalled $4.1 billion in 2008, with almost three quarters provided by State and Territory governments (SCRGSP 2010):

> 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 2010, p. 5.7)

The bulk of government funding for VET is distributed under the 2009 National Agreement for Skills and Workforce Development (NASWD). The NASWD is discussed further in section 4.3.

The NASWD is consistent with the way other Commonwealth–State financial arrangements have been restructured. COAG described the changes as follows:

> 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)

Future changes to university funding will also have implications for the VET sector (and, by extension, the VET workforce). 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. Universities will not be funded for places that they do not fill. (There are transitional arrangements in place for 2010 and 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 policy reforms along these lines.

In addition to providing direct funding to the VET sector, governments also provide indirect funding through various means, including tax deductions and welfare payments. This indirect funding is discussed later in the chapter.

Information problems in a free market

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. 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 'myopia' is another information problem in VET, and in education more generally. Students can be myopic about the value of education, since the benefits are long term and uncertain, whereas the costs are short term and apparent.

Industry can also be myopic. In consultations, it was evident to the Commission that some sections of industry that had raised concerns about skill shortages in recent years had also failed to upskill their workforces or recruit new skilled workers when the recovery was apparent and the resources boom re-emerging. When confronting skill shortages, industries have also 'poached' 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 industries involved.

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, MySkills (Gillard and Swan 2010), to provide information to users of the VET system (including performance information about Registered Training Organisations (RTOs))
- The National Centre for Vocational Education Research — a not-for-profit company owned by State, Territory and Commonwealth Ministers with responsibility for training — which collects, manages, analyses, evaluates and communicates research and statistics about the publicly-funded VET sector (NCVER 2010a).

To address information problems between industry and VET providers, governments have established and fund Industry Skills Councils and Industry Training Advisory Bodies (appendix E).

VET would be underprovided because of 'free-riding' by employers

VET services have some public good characteristics. The benefits to a firm from providing training are only partially non-excludable. Other firms can 'free-ride' by poaching trained workers. (This is likely to involve paying higher wages reflecting the previous firm's investment in training, but this benefit will go to the trained worker, not the previous employer.) Given this, and in the absence of government intervention, employer-funded provision of training (for example, apprenticeships) would likely be sub-optimal from an economywide viewpoint.

Governments address this by making payments to firms that take on apprentices, thus reducing the losses to employers from free-riding. Employers are also compensated through being permitted to pay lower 'training wages' to apprentices.

'Thin markets'

A further concern in the VET sector is that of 'thin markets', where the actual and potential number of learners might be too small to attract private training providers.

The NSW 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 [focussed] 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)

Similarly, Polytechnic West expressed the view 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).

There is debate within the sector about the significance of 'thin markets'. Some industry stakeholders believe that the perception of thin markets might be 'overstated' or 'artificial' in some cases. For example, were there considerable underlying demand for some types of training, but not necessarily for the precise

training delivered by the formal VET system, this underlying demand might not be recognised and lead to the erroneous conclusion that the market is thin (Ferrier et al. 2008).

Governments partly address 'thin markets' by funding providers in those markets at a higher rate, so that VET providers deliver in areas which would not otherwise be in their commercial interests. For example, some Technical and Further Education (TAFE) funding arrangements include a payment loading for delivery in regional and rural areas.

The Commonwealth Grants Commission also ensures that payments to States and Territories are reflective of socio-economic factors such as the proportion of the population living in rural and regional areas that is likely to require services that would not be commercially viable.

There are strong arguments for governments establishing formal community service obligation (CSO) payments to fund providers to deliver in thin markets. This would allow such subsidies to be overt, and would enable their regular review as part of budget processes. There is further discussion of CSO payments in section 4.4.

Credit market failures and equity considerations

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 (Chapman et al. 2007). Financial institutions might deem the default risk associated with lending to students to be excessively high, regardless of the students' future earning capacity in employment. In the absence of government intervention, this could 'lock out' potential students with limited resources. In response to perceived credit market failures, governments implement loans schemes and provide direct VET subsidies or student assistance.

Further, governments typically consider that access to VET would be inequitable in a free market — due to affordability issues for poorer students — which could further 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'. Accordingly, government subsidies potentially make VET services more affordable.

Government assistance includes:

- 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.

Governments often invest more heavily in training during downturns, as it is seen as critical to increasing the employment opportunities of those out of work and to making them 'job ready'. 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).

Broader government objectives

Finally, governments are likely to intervene in the VET sector to ensure that courses 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 needs. Instead of allowing provision to be driven by demand, governments have traditionally set the number of funded places in different VET courses targeted at different occupations and industries.

This form of intervention has obvious implications for the make-up of the VET workforce.

A prominent part of the workforce planning process is advising on the skills needs of industry. A variety of groups (including employer representatives) play a part in the process. Forecasts at the state and national level are also used to determine appropriate training priorities. Although skills forecasting should theoretically improve the information available on labour market needs now and in the future, 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 8).

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

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 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).

Further, COAG has envisaged a role for the VET sector in reducing 'gaps in foundation skills levels … to enable effective educational, labour market and social participation rates of adult literacy' (COAG 2008b, p. 6). NASWD uses the proportion of the adult population at literacy levels 1, 2 and 3 as a measure of progress against this objective (COAG 2008b).

COAG has also foreshadowed a role for the VET sector in seeking to close the gap in life outcomes between Aboriginal and Torres Strait Islander peoples, and non-Indigenous Australians. There is further discussion of COAG's targets for improving opportunities for Indigenous Australians in section 4.3.

Governments can also use funding to explicitly attempt to improve the quality of VET provision. For example, the Australian Government's *Quality Skills Incentive*, 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).

4.3 National VET architecture

In recent years the major policy directions for the VET sector have tended to be determined by COAG, with the methods to achieve COAG goals being left to the individual states and territories.

The National Reform Agenda and its successors

In recognition of the economic and social importance of education, 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 4.1) 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 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 Commonwealth will fund 100 per cent of the cost of job seeker places, with existing worker places being jointly funded by the Commonwealth (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 people and people with disability. The NIRA similarly highlights the importance of education in improving outcomes for Indigenous people, 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, post-school qualification in Certificate III, IV, Diploma and Advanced Diploma (COAG 2008d).

Box 4.1 National Agreement for Skills and Workforce Development (NASWD)

The NASWD agreement 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 paras. 13–15].

The NASWD has a particular focus on the following outcomes:

- Reducing gaps in foundation skills 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 paras. 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 2009).

The agreements are objective-based, rather than prescriptive, and 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.

Bradley Review

The Australian Government released a comprehensive *Review of Australian Higher Education* (commonly known as the 'Bradley Review' after its Chair, Professor Denise Bradley) in December 2008 (Australian Government 2008). Although primarily focussed on the university sector, the report nonetheless contained extensive discussion about VET, and particularly about the interface between the VET and university sectors. The Bradley Review made a number of recommendations, and set a number of targets, relevant to the VET sector, as discussed later in this section under the heading of student diversity.

Regulation of the VET sector

Governments have established a range of VET regulators and regulations, largely in order to address the range of potential market failures identified in section 4.1, and to ensure they are getting value for taxpayers' dollars, given the substantial subsidies they provide to the VET sector. Government regulation potentially affects the size and nature of the VET workforce, particularly where regulation relates to the qualifications required to participate in the sector.

Much of the regulation of the sector addresses quality issues. These can arise, for example, from information asymmetries. 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 standards. There is also a broader regulatory regime applying to RTOs. A credible regulatory regime can potentially provide students with some assurance about the quality of providers, and/or some certainty about the range of recourses available in case of default.

Industry and students often 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.

Agreed formation of a national VET regulator

COAG agreed at its December 2009 meeting to establish a national regulator for the VET sector, to be operational from 2011. 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 4.2), 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 2010; AEU sub. 34).

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).

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.

Box 4.2 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*. 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.

Student Diversity

The 2008 Bradley Review recognised the importance of including all groups from society in the education 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 Bradley Review found that the VET sector is better than the university sector at attracting disadvantaged students, although they were typically concentrated in Certificate I or II courses.

As a consequence, the Bradley Review recommended that the Australian Government set a target that by 2020, 20 per cent of higher education enrolments at undergraduate level are people from low socio-economic status backgrounds. The Australian Government has subsequently adopted this target. This will have ramifications for the VET sector in several respects. More students from these target groups might enter VET, and some might then use VET as a 'stepping stone' to university when they would otherwise not have enrolled in VET. However, some students from those backgrounds that would have traditionally used VET services might instead go directly into the higher education sector. Course selection within the VET system could also be affected.

The National VET Equity Advisory Council

In November 2008, governments agreed establish a new equity advisory body, the National VET Equity Advisory Council (NVEAC).The NVEAC's role is to consider the issues and barriers that affect all 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).

4.4 The increasing role of market forces in the VET sector

In the last few years, there has been a general move by governments — particularly by Victoria, Western Australia and South Australia — to introduce 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 to 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 Australian Government and state 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 (appendix B).

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 for the full fee paying student market, for both domestic and international students.

The continued presence of public institutions largely reflects the traditional view that government ownership of institutions is the best way of dealing with market

failures. 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 the 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. (As training becomes more firm-specific, the arguments for public funding diminish because the potential for spillover benefits is reduced).

With the emergence of a mixed market for VET services, there is concern among public providers that the private sector can 'cherry pick' profitable services, while leaving loss-making services (that might have net public benefits) to the public sector. The Gordon stated:

> TAFEs are the investment that Governments make in providing strong, high quality, high cost skills training for the nation, training that includes a heavy investment in plant and staff development, investment in areas that would not be profitable for private RTOs, investment in targeted training (i.e. disadvantaged groups or youth) where this might not be provided consistently in the wider VET sector … TAFE Institutes, also, are targeted to provide a wide range and depth of programs to meet industry and community skills needs – they are not able to cherry pick narrow but profitable areas to work in, with reduced costs, nor to quit an unprofitable program area easily. (sub. 9, p. 3)

The use of formal CSO payments by government has a role in helping to alleviate these problems.

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 VET expenditure met by students and enterprises via tuition fees (box 4.3). Further, 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. Research suggests that benefits accruing to individuals progressively increase with the level of the qualification. The new fee structure in Victoria reflects this, and South Australia has also proposed a similar change to its fee structure.

Box 4.3 **Student co-payments are the 'norm' in VET**

VET 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). There is a trend towards greater student contributions for VET courses, particularly for those courses considered to provide greater private benefits for students.

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.

One aspect of the manner in which 'user pays' principles have been applied under the Victorian policy also highlights the policy's emphasis on upskilling, with Government-subsidised places for people aged 20 and over to be restricted to training at the foundation skills level and for qualifications higher than the qualifications 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.

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.

The new arrangements in Victoria have government-subsidised training allocated in response to student demand rather than by 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).

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, more purchasing power would be provided to clients (individual students and employers) to ensure public subsidies for VET were provided in accordance with their choice of training and provider. The 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

The recent shift towards greater contestability and competition in the VET sector has also seen a move in many states and territories to provide public VET providers (typically, TAFE institutes) with greater independence from government. This is to enable them to better respond at a local level to the new commercial environment they are now in.

Government entities have varying degrees of independence depending on their structure, and on the legislation under which they operate. TAFEs have traditionally 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.

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)

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. 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.

DRAFT FINDING 4.1

A move towards greater managerial independence for public sector VET providers is likely to better enable them to respond to the more competitive environment they now typically face. However, the adoption of a full corporate model for public sector registered training organisations (RTOs) is unlikely to be appropriate, given the number of non-commercial objectives public providers are likely to have, and the desire for governments to retain both ownership and control.

As noted earlier, the use of CSO payments by government has the potential to facilitate greater competition between public and private sector organisations. Such CSO payments can be made to either public or private providers, to 'compensate' them for delivering broader government objectives. If public providers were expected to meet these objectives without such compensation, they would be disadvantaged when competing for students in a competitive market. However, if such 'compensation' were provided in, for example, the form of adjustment to global budgets for institutes, there would be the potential for it to be used inappropriately to cross-subsidise the competitive operations of institutes.

If public enterprises are appropriately compensated for the non-commercial activities they provide, competitive neutrality between the public and private sectors can be maintained.

From the evidence available to the Commission, it does not appear that the use of explicit CSO payments is widespread in the VET sector, although some jurisdictions are considering adopting the practice (DETA 2008; DFEEST 2010).

DRAFT FINDING 4.2

Increased use of explicit on-budget community service obligation payments to all VET providers (to compensate for provision of non-commercial activities) has the potential to improve transparency regarding the viability of Technical and Further Education (TAFE) institutes and other government-owned VET providers, while also improving competitive neutrality across providers.

INFORMATION REQUEST

Are VET providers (public or private) compensated for pursuing non-commercial objectives requested by governments? If so, does the level of compensation accurately reflect additional costs? What form does this compensation take? Is it transparently identified in government budget documentation and as income by providers?

5 What do students and industry 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 education and personal reasons. Nonetheless, VET was also important for them as a means of getting a job, due to their low pre-training employment rates.
  - Outcomes, such as completion rates, for students from equity 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.
- Industry has a range of expectations of the VET sector, including that the VET sector deliver competent and work-ready employees, as well as contributions to generic skills in communication, organisation and technology, and adequate foundation skills.
- Industry influences the VET sector through a range of means, including purchasing or providing VET, extensive engagement with Industry Skills Councils and other advisory arrangements, and partnerships with Registered Training Organisations.
- About fifty-five per cent of employers use the publicly-funded VET system, and satisfaction among these employers is high. However, satisfaction is higher among employers that use unaccredited training.
- Notwithstanding the employer satisfaction ratings recorded by the publicly-funded VET system, problems remain in meeting some of the needs of industry and the community.

This chapter discusses expectations of the Vocational Education and Training (VET) sector held by students and industry, ways in which these stakeholders

attempt to influence the sector, and the extent to which their expectations are met. The expectations and experiences of students and industry 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 including:

- to improve labour market outcomes or prospects
- to obtain other personal benefits
- to gain pathways to further study
- to 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 2009d).

Education and training — even with a vocational content — 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 2009d).

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 2009d). VET's role as a pathway to university appears to be increasing, albeit slowly. The proportion of students admitted to university on the basis of Technical and Further Education (TAFE) study rose from 9 per cent in 2002 to 10 per cent in 2006, and the proportion of university students gaining credit for prior TAFE study increased from 2.6 per cent in 2002 to 3.4 per cent in 2006 (DEEWR 2010c). However, pathways between private VET providers and universities are not well captured in any dataset.

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 2009d).

Along with the likely outcomes from engaging in VET, students will consider other factors, such as the affordability and accessibility of VET courses. 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 2010b, 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 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; an Aboriginal or Torres Strait Islander background; 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.

Table 5.1 shows significant variation in motivation for undertaking VET across different equity groups.

Table 5.1 **Main reason for undertaking training, by equity group, per cent, 2009**

	Highest prior level of education less than Year 12[a]	*Speak a language other than English at home*	*Indigenous*	*Disability*	*Remote area*[b]	*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[c]	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[d]	**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 students whose home address was in a remote or very remote area on enrolment, based on ARIA (Accessibility/Remoteness Index for Australia). [c] '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'. [d] '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.

Data are not available 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, pp. 23–25). 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 low language, literacy and numeracy 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 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 was to undertake VET 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 stand to benefit most from the VET sector when it is able to provide a culturally supportive learning environment. 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. 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.

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). 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, by comparison with other post-school education, might make this pathway more attractive to people with disability.

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. They might also expect providers to be aware of, and offer, technologies that allow them to become more independent:

> … 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 become less dependent on for example note takers and support workers and more independent – but there needs to be information and understanding of the range of assistive technologies and how they can be used in the learning environment and how materials and lessons need to be presented so that the assistive technology can be used to its full advantage. (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 the fact that 77 per cent of remote and very remote students were in employment, prior to commencing VET study, in contrast with 69 per cent of major city students (Productivity Commission estimates based on unpublished data from NCVER 2009d).

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.

Australian 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 in 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 enrolments — especially given greater levels of demand-driven funding — and withdrawals. Moreover, they

can provide feedback directly to VET practitioners or providers, through course evaluations and satisfaction surveys. All Registered Training Organisations (RTOs) are required to maintain and publicise processes for receiving and responding to students' complaints.

The five dual-sector universities in Australia have student unions, which provide opportunities for VET students to influence the sector. In contrast, equivalent bodies do not exist in standalone TAFEs and 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 over 2000 members.

Are student expectations being met?

The SOS is a key resource in measuring whether student expectations are being met. The survey collects data on the study experiences of students who are awarded a qualification (graduates), and those who successfully complete part of a course and then leave the VET sector (module completers). Unfortunately, the data do not capture students who study on a fee-for-service basis with private providers.

The SOS contains measures of student outcomes and student satisfaction. A recent assessment indicates that these measures are good indicators of students' experiences. Curtis (forthcoming) reviewed the quality of NCVER subject completion and student satisfaction measures and found that these measures appeared to be valid and reliable. Further discussion of indicators of performance in the VET sector is located in appendix D.

Overall, student outcomes and satisfaction with the quality of their training in the publicly-funded VET sector are high. In 2009:

- over 90 per cent of subject enrolments were completed (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 high levels of satisfaction appear to be achieved in the private VET sector. 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)

Students' opinions about various aspects of their publicly-funded education and training varied across different elements of teaching. Compared to perceptions of teaching quality, satisfaction rates were lower for assessment, and lower again for generic skills acquisition and learning experiences. For example, 57 per cent of VET graduates strongly agreed with the statement 'my instructors had a thorough knowledge of the subject content', 44 per cent with the statement 'the way I was assessed was a fair test of my skills' and 28 per cent with the statement 'my training helped me develop my ability to work as a team member' (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, 47 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 received at least one job-related benefit from training (NCVER 2009d).

Variation in outcomes across student groups

Not all VET students seek to complete a full qualification such as a Certificate or Diploma. Some only enrol in modules, subjects or Statements of Attainment. In 2009, satisfaction was higher amongst students who enrolled in a Statement of Attainment (89 per cent) or subject only (87 per cent), than amongst students who

were module completers at a Certificate or Diploma level (below 79 per cent). Moreover, at each Certificate and Diploma level, satisfaction was much higher for graduates than for module completers (Productivity Commission estimates based on unpublished data from NCVER 2009d).

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, only 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 are generally positive about their teachers' knowledge of the subject content, regardless of the level at which they study.

In terms of equity groups, subject completion rates for students with disability or of Indigenous status were a little lower than for all students, at 62 and 61 per cent, respectively, compared to 67 per cent. Indigenous students withdrew from 17 per cent of their subjects and students with disability from 13 per cent. These rates were high compared with the rate of withdrawal for all students, which was 8 per cent (table D.3). However, 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).

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 students. 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'. Only 49 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).

5.2 Industry expectations and experiences of VET

As noted in chapter 2, 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 industry expects from VET; how industry influences VET; and whether industry's expectations are being met.

What does industry expect from VET?

In practice, employers expect the VET sector to deliver high-quality education and training, leading to competent and work-ready employees. 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 2009, p. 6).

Employers also expect VET to deliver employability skills, sometimes referred to as generic skills. Industry has identified these skills to include: communication; team work; problem-solving; initiative and enterprise; planning and organisation; self-management; and learning and technology. Personal attributes 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).

Industry also has 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, industry stakeholders expect the sector to play a role in addressing broader economic challenges, such as low productivity and skill shortages. Industry Skills Councils (ISCs) 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)

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)

The VET sector along with the higher education sector and skilled migration are critical to addressing skill shortages in the economy.

The Department of Education, Employment and Workplace Relations (DEEWR) undertakes research on skill shortages, and monitors occupations for which skill shortages exist. DEEWR (2010d) 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 (measured through employers being unable to fill, or having considerable difficulty filling, vacancies for an occupation, at current remuneration and conditions of employment, and in a reasonable accessible location) were most apparent in:

- engineering, health diagnostic and therapy and nursing professions
- automotive, construction and food trades (DEEWR 2010d, p. 13).

With the exception of engineering draftpersons 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 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.

Expectations of industry 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.

Skills supply–demand mismatch

Part of industry's concerns is a perceived mismatch between the skills produced by the VET system and those required by industry. Industry wants 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 an occupation group that was related to their training course (Karmel 2009). On face value, this is a cause for concern for industry, as it suggests a sizeable mismatch in the supply of and demand for skills. However, upon further examination, a more nuanced story emerges. Karmel (2009, p. 9) noted 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, a further 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, which might or might not be related to the relevance of qualifications for job success.

The link between skills acquired and occupation varied according by type of training. Seventy-nine per cent of recent VET graduates from a trade course who were employed after training were employed in that same trade. In contrast, 38 per cent of those having undertaken a non-trade course were employed in an occupation group associated with that course, following training (Karmel 2009).

Other research has been undertaken on skills mismatch amongst VET graduates. 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.

Overskilling varied by education level, and was less prevalent amongst those with a Certificate III or IV qualification, including an apprenticeship — 62 per cent reported that their skills were 'well matched' with their job, 28 per cent that they were 'moderately overskilled' and 10 per cent that they were 'severely overskilled'. In contrast, 56 per cent of the employed population reported that they were well matched. The low numbers of VET graduates at Certificate I and II levels restricted analysis of this category. However, reported overskilling was more prevalent amongst those with lower education levels.

Mavromaras et al. (2010) also 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.

How does industry influence the VET sector?

Industry 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. Employers might prefer to hire staff who have studied with some RTOs rather than others. 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 staff. Some employers, whose principal business is not education and training, go further and become 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 2008). 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 5.1 **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 2008). 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:

- Certificate II in Retail Operations
- Certificate 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 associations 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 portable.

Industry advisory arrangements

Both employer and employee peak bodies play a key influencing role through 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 have other roles, including:

- providing advice to Skills Australia, government 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 5.2 profiles each Australian ISC.

Box 5.2 Industry Skills Councils

There are 11 Industry Skills Councils (ISCs).

AgriFood Skills Australia is the ISC for 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 is the ISC covering the community services and health industries.

Construction & Property Services Industry Skills Council is the ISC that 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, gas and electrical supply.

SkillsDMC is the ISC for the resources and infrastructure sectors.

Government Skills Australia is the ISC for 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 is the ISC for the manufacturing and automotive industries.

The Transport and Logistics Industry Skills Council covers the road transport, rail, warehouse and storage, maritime and aviation industries in Australia.

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 employability skills. From 2006, at employers' request, employability skills were added into Training Packages by the relevant ISCs (IBSA 2008).

Industry 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. (National Quality Council, 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. Callan and Ashworth (2004) investigated a number of partnerships between these two parties, 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 can 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 on a full time, part time or flexible basis in agriculture, food technology and food processing.

The advantages of partnerships notwithstanding, industry has 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, p. 7).

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 industry expectations being met?

A key resource on employers' experiences of VET is the *Employers' Use and Views of the VET System* survey, run every two years by the NCVER. Findings from the most recent survey are presented in box 5.3. Data from the survey show that, in 2009, about fifty-five per cent of employers used accredited training in the VET system. Satisfaction amongst these employers was high. However, satisfaction was higher still amongst employers who used unaccredited training.

Box 5.3 **Employer satisfaction with the VET system, 2009**

In 2009, 57 per cent of employers used the VET system, that is, hired someone with vocational qualifications, employed an apprentice or trainee or had staff undertake other nationally recognised training (not as part of an apprenticeship or traineeship).

Employers who did not use the system were asked their reasons for: not having vocational qualifications as a job requirement; not employing apprentices and trainees; and not using nationally recognised training. Most respondents answered 'unsuitable or not relevant to the organisation' (74 per cent, 75 per cent and 71 per cent, for each question respectively). Less than five per cent of respondents nominated 'had tried this option before and were dissatisfied' as a reason.

Of those who hired a VET graduate, 83 per cent were satisfied with formal vocational qualifications in providing employees with the skills required for their jobs.

Among the 31 per cent of employers with apprentices and trainees, 83 per cent were satisfied that this training met their skill needs. Of the 10 per cent who were dissatisfied, 40 per cent believed that relevant skills were not taught, 32 per cent believed that that the training was of poor quality and 30 per cent believed that there was not enough focus on practical skills.

Just over a quarter of employers used other nationally-recognised training for their staff — 86 per cent were satisfied. Of the 7 per cent of employers who were dissatisfied, 39 per cent believed that the training was of poor quality, 39 per cent that relevant skills were not taught and 34 per cent that there was not enough focus on practical skills.

The survey also sought firms' views on the use of unaccredited training, used by 53 per cent of employers in 2009. Of those, 95 per cent were satisfied.

Source: NCVER (2009b).

Analysis of the robustness of the 'Use and Views' survey 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 who use VET 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. Interviewers read out the question and the respondent provides an answer that the interviewer then codes to a pre-existing code frame (the code frame is not read out to respondents). If the response is unclear the interviewer will probe further as to what the respondent means. Prior to fieldwork, all interviewers undergo training. In this training the interviewers are briefed on all response codes and when each should be used. 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)

Employers' satisfaction is likely to depend on a range of factors including cost, relevance and the quality of VET assessment received by their workers. The National Quality Council (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 their 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 numerous instances of employer dissatisfaction with specific aspects of VET.

Rittie and Awodeyi (2009) analysed data from the 2005 and 2007 'Use and Views' surveys. The authors noted that, based on the survey, 'satisfaction with the VET system is high' and examined employers' views on improving the VET system. 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.

ACCI has previously argued that the system required additional funding. 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)

In contrast to the views above, some industry stakeholders have a wholly negative view of the system. The MCA noted that:

> 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. (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 industry 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)

This suggests that, notwithstanding the employer satisfaction ratings recorded by the publicly-funded VET system, problems remain in meeting some of the needs of industry and the community, more generally.

6 Implications of a changing environment for the VET workforce

Key points

- Due to a range of demographic, economic and policy factors, the Vocational Education and Training (VET) workforce can expect to face a higher demand for labour market skills and changes in the skills and attributes that VET workers are required to hold.
- The VET workforce of the future will need the capacity and capability to:
  - deliver a higher volume of training
  - respond to unpredictable fluctuations in demand for training in a climate of policy change, economic volatility and shifting international ties
  - deliver more training at higher levels of qualification
  - deliver more training in foundation-level language, literacy and numeracy skills
  - handle a more diverse student population, including 'second-chance' learners, students from low socio-economic-status 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 chapters 7 and 8.

6.1 Demographic trends

Ageing population

As a proportion of the total population, Australia's working-age population (15 to 64 years) is forecast to fall from 68 to 62 per cent of the total population by 2050. Conversely, in this timeframe, the group of older Australians (65 to 84 years) is forecast to grow from 12 to 16 per cent of the population (Treasury 2010). The ageing of the population will have profound implications for the training market, via its effect on the future supply of Australia's workforce, as well as its effect on the volume and types of skilled labour required.

Population ageing heightens the need to replace the skills of workers retiring from the labour force, as well as compensate for the shrinking relative size of the labour force (Skills Australia 2010a). These effects will intensify demand for training across the labour market. While all industries will require skill replenishment in the future, demand for skilled labour might be higher in industries characterised by older staff profiles. Industries with older-than-average labour forces include health care and social assistance, education and training, and agriculture, forestry and fishing (ABS 2010a). These industries are likely to experience relatively higher workforce attrition in the short to medium term, and, depending on demand for their services and products, might have greater need to invest in the skills of their remaining workforce.

The demand-side effects of the ageing population are driving strong requirements for skilled labour in health and aged care services (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). There is already 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). At the same time, there will be other industries that are likely to contract as a result of the ageing population. For example, abstracting from changes in regulatory requirements, demand for skilled labour in child care services may fall relative to demand for aged care services.

Immigration rates

Changes to immigration policy can affect demand for training both via the impact on the size of the student population and on the size of the skilled labour force.

Recent changes in immigration policy demonstrate the sensitivity of the VET market to such factors.

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 international student 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). This rapid growth reflected 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.

The past year has seen a plateau in international student enrolments in VET. As at September 2010, year-to-date enrolments matched the same month for the previous year, at around 212 000 students (AEI 2009, 2010b). This partly reflects a tightening of immigration policy, which was announced in February 2010, and the introduction of a new Skilled Occupation List. The recent appreciation of the Australian dollar is also a contributing factor (AEI 2010a).

Fields of training that have typically attracted relatively 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 can expect to experience some variability in response to any future changes in immigration rates.

International students' share of VET has implications for VET workers' teaching and training practices. Many overseas students have different educational, language and social needs from those of domestic students (Australian Council for Private Education and Training (ACPET), sub. 50; The Gordon, sub. 9).

Demand for training is also affected by changes in the number of skilled immigrants 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 (Department of Immigration and Citizenship 2010). These policy changes have been aimed at maintaining a tight focus on areas of the Australian economy that are experiencing skills shortages.

With recent events demonstrating the high variability of Australia's intake of international students and skilled migrants, the VET sector needs to readily adapt to any resultant fluctuations in demand for training.

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] This projected future job growth is expected to require an additional 1.9 million workers with post-school qualifications by 2025, when taking into account the need to replace retired workers, upskill existing workers and train workers for newly-created jobs. Highlighting the contribution of the VET sector to Australia's ongoing growth, just over 1 million of these workers are expected to need qualifications from Certificate I to Advanced Diploma level. These forecasts imply that, compared to its current delivery, the VET sector will be required to deliver a higher volume of training in order to support to this projected job growth.

Structural changes

In the short and medium term, the impact of structural changes occurring across the economy will result in some industries experiencing relatively stronger growth rates in demand for skilled labour and, therefore, for training.

The ongoing shift in economic activity from primary industries to services is fuelling higher demand in labour-intensive industries. Industries such as finance, insurance and community services are projected to be among the fastest growing in the 15 years to 2025. In comparison, manufacturing and agricultural industries are projected to experience very low, if not negative, employment growth (Access Economics 2009). These structural shifts already appear to be somewhat reflected in VET enrolment patterns. From 2000 to 2009, enrolments in agriculture and environment-related studies fell by 23 per cent, while enrolments in food, hospitality and personal services rose by 30 per cent (table B.9). The expansion of the health and social assistance services, fuelled partly by the ageing population, also represents a structural change driving higher demand for training in the future.

1 Projections are based on moderate aggregate growth conditions ('low-trust' scenario) which most closely match current economic conditions (Access Economics 2009).

There are other, more specific, structural changes that are expected to shape demand for training in the future. One, a heightened focus on environmental sustainability across the economy, has raised the importance of workers attaining and implementing 'green skills' (IBSA, sub. 8). The Council of Australian Governments' (COAG) endorsement of the Green Skills Agreement, as outlined in chapter 4, has had — and will continue to have — important implications for the sector (COAG 2009c). 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 implies that VET trainers and assessors who are responsible for designing and delivering training materials will need to modify their practices where necessary, and accommodate any changes made to Training Packages. Additionally, the agreement intends for the VET sector to develop strategies that will re-skill workers from 'vulnerable' industries within the labour market.

Another major structural change that will affect the training market and the VET workforce is the ongoing rate of technological change, including the roll-out of the National Broadband Network (IBSA, sub. 8). Such a change is likely to affect telecommunication practices across a wide range of industries, implying a higher need for VET trainers and assessors to update their knowledge in order to maintain industry currency. Technology is also likely to impact on the delivery of VET itself. IBSA noted the need for the VET workforce to respond to developing 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. (sub. 8, p. 6)

VET workers who are responsible for designing and reviewing VET material need to be able to readily anticipate, identify and correctly interpret the changing needs and practices of industry. Additionally, periods of rapid structural change suggest that there is greater need for VET trainers and assessors to maintain their industry currency. The 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

While economic growth will fuel higher demand for skills across many parts of the labour force, cyclical fluctuations in economic conditions will also impact on demand for training from individuals and employers.

Demand for training is generally found to be counter-cyclical. During periods of strong economic growth — translating into strong employment prospects and wage growth — prospective students will have greater incentive to switch to job-seeking and working in place of studying or training. In addition, strong employment conditions give existing workers less reason to try to secure their jobs by upgrading their skills. During periods of strong demand, employers are less willing to give these workers time off work to engage in training. These effects imply that VET participation rates are likely to fall when economic growth rates are strong.

Offering some evidence of such a relationship, data on student applications for enrolment in tertiary studies (including Technical and Further Education (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 also describe demand for training as counter-cyclical:

> … the 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. … typically 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)

There also appear to be shifts in demand for training away from particularly volatile industries during times of weak growth. This implies that, as individuals switch from job-seeking to training when job prospects are poor, they will also select fields of training which are expected to offer relatively better job prospects. For example, during the recent 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 VET participation in these fields of study. Moreover, from 2008 to 2009, enrolments in management and commerce in publicly-funded VET fell by 5 per cent, as 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, there is potential for specific jurisdictions or regions to experience greater 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, in particular, given the relative importance of the mining industry in these states.

In contrast to VET generally, participation in apprenticeships and traineeships appears to be pro-cyclical, as these are ways for employers to secure skilled workers during times of increasing demand and tightening labour market conditions. For example, the recent downturn in economic growth coincided with a fall in apprenticeship and traineeship numbers in Australia (Karmel and Misko 2009) and increasing rates of non-completion specifically due to job loss or redundancy (National Centre for Vocational Education Research (NCVER) 2010b). During the immediate lead-up to the resources boom, a pro-cyclical relationship was observed in the mining states of Western Australia and Queensland, where apprenticeship commencements accelerated (NCVER 2010b). International evidence also points towards this general pro-cyclical effect (Brunello 2009).

Apprenticeships and traineeships in some industries are also 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 (Karmel and Mlotkowski 2008).

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 (chapter 7).

6.3 Skills policy agenda

Skills-deepening

As discussed in chapter 4, COAG is currently pursuing a 'skills-deepening' human capital policy, with specific targets to increase the proportion of the population that holds a post-school qualification (Access Economics 2009; Skills Australia 2010a). The policy aims to lift the participation and productivity rates of the working-age population, in an attempt to address the impact of population ageing and meet the need for a more highly-skilled labour force (Treasury 2010). The skills-deepening targets are in addition to the current rates of upskilling that are occurring within the workforce, as mentioned in section 6.2.

There are indications that, over the past decade, skills-deepening has been occurring — to some extent — in relation to VET-level qualifications. From 2001 to 2009, the

share of the 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). The share of the population holding a higher-level VET qualification (Certificate III or IV, Diploma or Advanced Diploma) rose by almost 5 percentage points, while the share holding a qualification at Certificate I or II level declined. This trend was complemented by an increase in attainment of university-level qualifications, confirming that the population's average educational attainment has been increasing.

Within the publicly-funded VET system, the share of students enrolled in Certificate III qualifications or higher increased by 14 percentage points between 2000 and 2009, while the share enrolled in 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 pursuit of the skills-deepening policy implies a need for more VET trainers and assessors who are suitably skilled in delivering this higher level of training. This may mean that, compared to the existing workforce profile, the sector will require a larger share of trainers and assessors who hold higher-level qualifications themselves. Currently, around 70 per cent of trainers and assessors in the TAFE sector, and 60 per cent of trainers and assessors in the non-TAFE sector, hold a Diploma or undergraduate degree or higher (table C.10). While nearly all of those in the TAFE sector hold a post-school qualification, almost 20 per cent of those in the non-TAFE sector hold no post-school qualification. This disparity suggests that the TAFE sector might be more strongly relied upon to support the skills-deepening agenda and deliver the higher-level qualifications needed in the future.

Foundation-level language, literacy and numeracy skills

A number of factors point towards an increasing focus on the delivery of foundation-level language, literacy and numeracy (LLN) skills in the VET sector. Alongside the push to increase the attainment of higher-level VET qualifications, the Australian government is also pursuing a policy agenda to improve rates of VET

participation among those groups who would otherwise be disengaged from education and training. This policy serves a role in lifting labour force participation, but also contributes to social inclusion, as discussed in chapter 4. Industry has also recognised that the skill requirements of jobs within the economy are, on average, increasing (Australian Industry Group (Ai Group), sub. 14; IBSA 2010c).

IBSA commented on this changing need facing the VET sector:

> … it 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. (sub. 8, p. 6)

The delivery of LLN skills caters to adult learners who have not gained these skills in the school system, and to migrants with limited English ability, but is not exclusive to these students.

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 skills may require VET trainers and assessors to possess a greater knowledge of teaching theory and practices than is required in the delivery of more vocationally-specific courses. Although these foundation skills may be delivered in dedicated LLN courses or modules, they can also be delivered in the context of other, non-LLN-specific, courses.

While the VET workforce can prepare itself for a greater intake of students in LLN courses, there are 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 2010c). This is partly because they might be reluctant to reveal their need for assistance or do not recognise their need. This risk suggests that the VET workforce may also need to allocate some resources towards locating and assessing these members of the population, and encouraging their participation in VET.

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 e-learning, online delivery and distance education. These modes of training rely heavily on technology-based delivery methods, but may also entail, for example, teachers flying to remote locations to conduct classes and training.

The increased use of flexible delivery has largely been facilitated by advances in information and communication technologies (ICT). The trend has also been prompted by the objectives of the VET sector and governments. In particular, flexible modes of delivery allow the sector to give access to 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 responsibilities or full-time jobs.

Members of the VET workforce have expressed a strong awareness of the impact of technological advances on the sector:

> 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 the internet, email or online instruction were used in delivery of around 40 per cent of VET qualifications; computer disks or CD-ROMs were used in the delivery of nearly 30 per cent; and audio or video cassettes were used in the delivery of 28 per cent (Productivity Commission estimates based on unpublished data from the ABS *Survey of Education and Training* 2009). These delivery methods were relatively more common at the Diploma and Advanced Diploma levels.

Students, too, are expressing a growing preference for more flexible modes of delivery. In a survey of 3600 VET students, almost half reported that the availability of e-learning influenced their choice of course, around 40 per cent said that

e-learning was a factor in their choice of training provider, and 90 per cent wanted e-learning to be a component of their course (ACPET, sub. 50).

Delivery by remote access appears to be increasing in prevalence, with the share of total VET delivery hours rising from 3.5 to 4.9 per cent between 2000 and 2009, while campus-based delivery declined from 83 to 71 per cent (table B.23).[2]

There are indications that other 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). An increased reliance on flexible modes of delivery suggests that VET workers need to be proficient in the types of technology that are appropriate to these various delivery modes. An additional consideration for the delivery of VET via distance education is the need for trainers and assessors to keep students engaged during non-contact time and cater for the particular needs of students in isolated locations.

Employment-based delivery

As part of forming closer ties with industry, there are trends signalling an increased reliance on employment-based VET delivery. Between 2000 and 2009, this mode of delivery more than doubled as a share of total hours of delivery, to 11.5 per cent (table B.23). As an example of expected trends, 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). An increasing reliance on this mode of delivery implies that VET trainers and assessors need to be increasingly flexible in terms of times and locations of training delivery.

Changing student profile

The changes foreshadowed in the sections above mean that the VET sector's student population will become increasingly diverse as the sector increases the provision of foundation skills, broadens its accessibility through more flexible modes of delivery, and pursues policy agendas to improve rates of educational attainment. These changes compound the expectations already placed on the VET sector to cater for students who have not achieved the standards expected in the school system, or cannot be adequately accommodated by the school system.

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2 This trend, however, does not necessarily imply that participation in VET has increased in isolated regions, as there has not been any corresponding increase in the number of VET students in remote and rural locations, as a proportion of total enrolments, at least in the publicly-funded VET sector (table B.22).

These factors imply that the VET sector will need to cater for a growing number of students with the following characteristics, which are associated with a higher potential for disadvantage or marginalisation:

- 'second-chance' learners who have not succeeded in secondary school and undertake school curriculum as adult learners (for example, enrolling in courses in foundation-level LLN skills)
- students from low socio-economic-status 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 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 by students with characteristics associated with disadvantaged backgrounds. Between 2000 and 2009, in the publicly-funded VET sector: the share of Indigenous students in VET rose from 3.0 to 4.4 per cent; the share of students with disability rose from 3.6 to 5.9 per cent; and the share of students from non-English-speaking backgrounds rose from 11.8 to 15.3 per cent (table B.19).

A broadening student profile suggests that the VET sector of the future will require workers who are suitably equipped to accommodate these students' personal needs, cultural practices and past learning difficulties. The trend towards a more diverse student profile might also imply that the sector needs to consider employing more members of these groups as part of its own workforce, to improve student outcomes. Currently, 4.4 per cent of all students in the publicly-funded VET system are Indigenous, compared to 1.3 per cent of all VET trainers and assessors (tables B.19 and C.17). Around 5.9 per cent of all students in the publicly-funded VET

sector have disability, compared to 0.7 per cent of all VET trainers and assessors (tables B.19 and C.19).

There are also suggestions that the VET workforce might benefit from 'group teaching' models, where traditional teachers are complemented by other staff providing 'wraparound' services to support these students. For example, on the completion of their courses, they might require more job-seeking assistance as they generally have lower pre-course employment rates than other students.

6.4 Changing VET systems and structures

Contestable and demand-driven funding

As discussed in chapter 4 and appendix E, there is currently a range of proposed changes to the VET sector's funding schemes. Some of these changes are already underway in some jurisdictions. Such changes have a number of potentially significant workforce implications.

First, the proposed adoption of an outcomes-based funding mechanism might create cash flow challenges for some providers, constraining their capacity to hire staff. This funding arrangement might create greater uncertainty for the sector overall, translating into greater job uncertainty for employees and potentially deterring workers from entering the sector. From the point of view of trainers and assessors, an outcomes-based funding scheme could prompt greater emphasis on student completions in training courses. This might, in effect, create a shift in trainers' and assessors' teaching practices, such that they need to be more attentive to students' ongoing attendance and performance. An alternative consequence is that it could lead to some reduction in VET standards, if successful completions are paramount.

A second proposed change to VET's funding system is the greater use of student contribution schemes, as implemented in the higher education sector. The adoption of a loan scheme would entail shifting a greater share of funding to student contributions. An increase in VET student fees could, in turn, reduce their aggregate demand for training. It is difficult to estimate the extent of this effect, since VET student fees have not varied much over time. However, there are suggestions that students' responses to any increase in fees will be very small, since the fees are relatively low. It is estimated that an increase in VET fees of 10 per cent would result in a decrease in the number of students enrolled by 0.6 per cent (Access Economics 2004).

The shift to a student contribution scheme may have other effects on VET delivery and the types of students who are attracted to enrol. It may encourage students to consider themselves more as paying customers, which could alter students' approaches to training and the way in which students and trainers and assessors interact with each other. If the repayment of a loan is on an income-contingent basis — whereby students only need to repay the loan once they reach a given income threshold — this change would be expected to improve the accessibility of VET to students from lower socio-economic-status backgrounds. This would contribute to broadening the existing student profile of the VET sector, thus shifting the skill requirements demanded of VET trainers and assessors, as discussed in section 6.3.

A third proposed change to funding schemes is a move towards greater contestability and demand-driven purchasing. Again, this may give rise to greater uncertainty for the sector and, therefore, require greater flexibility in the staffing arrangements of individual Registered Training Organisations (RTOs). This move might also imply a need for greater investment in marketing and advertising to appeal to students, increasing the importance of staff associated with these functions within the workforce.

More generally, the move towards a more commercial operating environment might place even greater importance on managerial, entrepreneurial and marketing skills. While the VET sector already comprises professionals with such skills, it may require proportionally more of these workers in the future (IBSA, sub. 8).

Overlapping sectoral boundaries

Recent trends indicate increases in both the delivery of VET-in-Schools (VETiS) and the delivery of higher education qualifications in VET. From 2007 to 2008, the number of students who participated in school-based apprenticeships, traineeships or other VETiS programs increased by 25 per cent.[3] 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 2009e).

If the delivery of VETiS and higher education qualifications in VET continues to expand, there will be a stronger need for the VET workforce to be able to adapt to different curriculum content, teaching environments and student profiles. Although it is difficult to distinguish, and, therefore, quantify, the current number of VET workers who are involved in VETiS and higher education delivery, there are

[3] These data, however, are affected by changes in reporting systems in some jurisdictions (see notes accompanying table B.12).

expectations that a greater number of suitably qualified VET workers will be required in the future to deliver these types of courses.

The focus on education-related policy goals, more broadly, may be expected to increase the demands placed on Australia's education system overall. As a consequence, VET providers may 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 mobility might be most likely to occur in fields of delivery that overlap between the sectors, such as the provision of foundation-level skills in LLN (delivered in both schools and VET) or in the range of higher-level VET qualifications or lower-level higher education that are offered by both types of tertiary institution.

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. COAG has promoted the use of RPL and RCC to ensure that workers do not have to repeat or undertake training for skills they have already acquired on the job (COAG 2006).

Providers must assess whether a worker is competent to the standards prescribed by the relevant Training Package (Joint TAFE Associations, sub. 48). Although RPL may 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).

There is evidence that 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). Assessing students by RPL requires a different skill set from VET trainers and assessors.

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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 Ensuring workforce capacity and efficiency

Key points

- Securing the appropriate number and mix of workers requires planning and implementation strategies to attract and retain the best people.
- Better data — particularly covering the private VET sector — are urgently required to inform policy strategies and assist with workforce planning.
- 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 COAG education targets will all add to the current complexities involved in planning.
- Wage structures in the TAFE sector take no account of the relative scarcity of industry skills being sought. As a consequence, TAFE can find it difficult to attract and retain some VET trainers and assessors with particular industry skills without resorting to overaward payments, while other VET trainers and assessors might be paid more than is necessary to recruit and retain them.
- There is considerable variation across jurisdictions in working hour 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 is limited where restrictions on the use of casuals by TAFEs apply.
- Older workers and former VET workers in other industries will be potential sources of VET workers in the future. Impediments to their recruitment should be removed.
- High administrative loads and work-related stress hinder retention of VET workers. Despite this, job satisfaction in VET appears to be high.
- 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 necessary staff.

The pressures on the Vocational Education and Training (VET) sector, identified in chapter 6, point to an increase in the demand for VET in the next ten years. There is

a risk of future shortages of VET workers, unless strategies are adopted now and over the medium term. With an increasingly tight overall labour market, particularly as a result of population ageing, adequate VET workforce capacity will also need to rely on efficiency gains from the workforce. This chapter discusses the impediments and possible strategies to secure the workers and working arrangements the sector will need. It should be read in conjunction with chapter 8, which examines ways to ensure that the workforce available in future is also effective, through having the skills to deliver the outcomes expected of the sector.

7.1 What makes for a workforce with adequate capacity?

For the 'production' of VET, Registered Training Organisations (RTOs) use 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 sector's output.

By altering the proportions of labour and other inputs, and organising the production process better, RTOs may 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). This can influence the VET sector's technical or productive efficiency.

The main focus of this study is on the relationship between outputs from the sector and the workforce inputs used in their production (that is, productive efficiency). Unless otherwise noted, this is the context in which the term 'efficiency' is used in the remainder of this chapter.

7.2 Identifying the need for workers

At a point in time, the size of the 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 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 an employer's perspective, securing the appropriate number and mix of workers, in the right locations, both now and into the medium term, requires planning and then implementing strategies to attract, train and retain the best people. 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)

The following principles for workforce planning for the teaching profession, outlined by the Committee for the Review of Teaching and Teacher Education (2003, p. 95), may be 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 would include:

- Characteristics of the current workforce, [in] 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 [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 ANTA (2004), 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 institutes (TAFEs) indicated 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, on average, an 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 may 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:

> … 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, accounting for regions and industries:

> 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 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 (Victorian TAFE Association 2008).

Private RTOs have a minor 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 purchasers, but it also introduces uncertainty on the demand side of 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, p. 12) 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 factors including exchange rate relativities and immigration policies. This impacts on the demand for VET trainers and assessors, both in terms of capacity and capability.

Franchising arrangements, 'where universities franchise TAFEs or private providers to deliver parts of courses on a fee-for-service basis' (Ross 2010), are likely to become more common in the quest to meet COAG higher education targets. Workforce plans will need to factor in the demand for additional VET staff, who

1 South Australia is also considering a demand-driven funding model (appendix E).

will increasingly need degrees and higher degrees (Joint TAFE Associations, sub. 48, p. 23) 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, it is not possible to produce sound forecasts of demand for particular skills more than a few years in advance, because (due to greater uncertainty) accuracy drops as the projection horizon extends, and accuracy diminishes 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 early 2011, has requested the views of interested parties about an appropriate role and profile for the VET workforce (Skills Australia 2010a).

It is appropriate for national bodies such as Skills Australia to consult with VET stakeholders on future directions for the sector, particularly in view of projected demand increases. This assists with identifying major current and anticipated VET risks and requirements, and allows the VET sector to put in place timely strategies to better meet Australia's training priorities.

Good planning requires good data

The TAFE sector is more data-rich than the private sector, with several administrative collections at both the provider and jurisdictional level. 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. Conversely, the same data are sometimes collected by a number of different bodies, adding to the response burden on the sector.

As mentioned in chapter 3, and confirmed by several participants, a detailed national data collection for the VET workforce does not exist (box 7.2). This makes comprehensive and detailed knowledge of the workforce — a prerequisite for effective planning at any level — difficult at this time.

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. 6)
>
> 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, STAs, 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.

DRAFT FINDING 7.1

Consistent national data about the size and characteristics of the VET workforce are lacking. Many administrative collections exist, at both the provider and jurisdictional level, but they are incomplete, disparate and not widely used or disseminated. Lack of quality data is an obstacle to effective policy making and workforce planning at any level, and to efforts to improve the capacity and capability of the workforce.

Governments could potentially play an enabling role, 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). At the moment, private providers 'see little or no value in the reporting that they are forced to undertake' and argue that future attempts to collect data should provide:

> … 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)

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 (setup) 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 government funding of VET.

With an administrative data collection, the reporting burden falls entirely on employers, whereas for survey data it may 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 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 Enterprise RTOs (ERTOs)) and off-shore activity. Consideration might need to be given to mandating data provision as a condition of registration as an RTO.

Given their experience in collecting data on the VET effort, the Commission considers that the National Centre for Vocational Education Research (NCVER) would be a suitable choice 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.

Careful consideration should be given to enabling the future instrument to collect sufficient information to allow the determinants of quality teaching to be investigated. This is a key gap in current data collections, and might require the collection of longitudinal (panel) data. The *Medicine in Australia: Balancing Employment and Life* (MABEL) longitudinal 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.

In designing the instrument, the developers should also consider the best means of capturing student and industry satisfaction with the VET workforce. As mentioned in chapter 5, existing data do not capture students who study on a fee-for-service basis with private RTOs, and existing employer satisfaction data might not be an accurate indicator, as there is a lack of clarity about reasons why some firms do not use the VET system. A new instrument could better capture this information and link it with other indicators of quality teaching. The issue of quality teaching is further investigated in chapter 8.

Some activity is currently underway that could contribute to early achievement of the 'better data' objective. The National VET Data Strategy is currently considering

aspects relevant to workforce data collection. As part of the Strategy, the Enhancing Survey Data project will review, by the end of 2010, existing surveys and identify 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. These projects aim to improve access to timely and high quality data from RTOs (and could include improved workforce data).

The Commission has provided input to the ongoing NCVER review of the statistical standard for the National VET Provider collection, including a list of data elements needed for the analysis of the VET workforce. This list could provide the basis for a new instrument with which to identify and measure the VET workforce.

DRAFT RECOMMENDATION 7.1

The Ministerial Council for Tertiary Education and Employment should engage the National Centre for Vocational Education Research 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, but not unduly increase the response burden for providers.

DRAFT RECOMMENDATION 7.2

The National Centre for Vocational Education Research should consider the information required to allow the critical determinants of quality teaching to be investigated quantitatively, and consider the best means of capturing student and industry satisfaction with the VET workforce.

7.3 Factors affecting attraction and retention

Across the VET sector, little is known about the reasons why VET workers enter, stay in or leave the VET workforce. Most literature on career pathways focuses on TAFE trainers and assessors. There is a much smaller body of literature looking at other VET professionals and general staff employed in private VET providers (Simons et al. 2007).

Many participants discussed the factors that influence attraction and retention in the VET sector. Key factors mentioned were, in roughly descending order of importance:

- wages and salaries
- hours of work
- work arrangements

- professional standing
- career pathways
- administrative load and work conditions
- job satisfaction.

These factors are examined below.

Wages and salaries

One key influence on the number of people willing to work in the VET sector is the level of remuneration and the conditions on offer, relative to other industries or occupations that are also looking to employ skilled workers (box 7.3).

Box 7.3 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:

> … VET teachers particularly in technical trades are drawn from the ranks of industry professionals, and are required to have industry experience (typically a minimum of three to five years experience). Competition for these recruits therefore comes from industry, who are less restricted by established pay scales, and will be dictated by the market for technical skills. The actuality that VET trainers are dual professionals dictates that training organisations must compete with remuneration packages offered by both professions if they seek to selectively recruit candidates. (EE-OZ Training Standards, sub. 20, p. 8)
>
> … 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)
>
> In 2006, Swan TAFE [now Polytechnic West] undertook an innovative advertising campaign … which targeted conditions of employment and lifestyle changes as a way of compensating for the generally more attractive salaries offered by industry, particularly the resources sector. (Polytechnic West, sub. 5, p. 5)
>
> 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)

(Continued next page)

Box 7.3 **(continued)**

In WA, the current funding model for publically funded registered training organisations (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 ie. 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)

… the specificity and expense of mining equipment and sites means that training is best delivered by people experienced in the specific equipment and sites.These people can earn large amounts doing non-training roles in the mining industry and so are paid very well to be trainers. (Dr Robert Dalitz, sub. 10, p. 2)

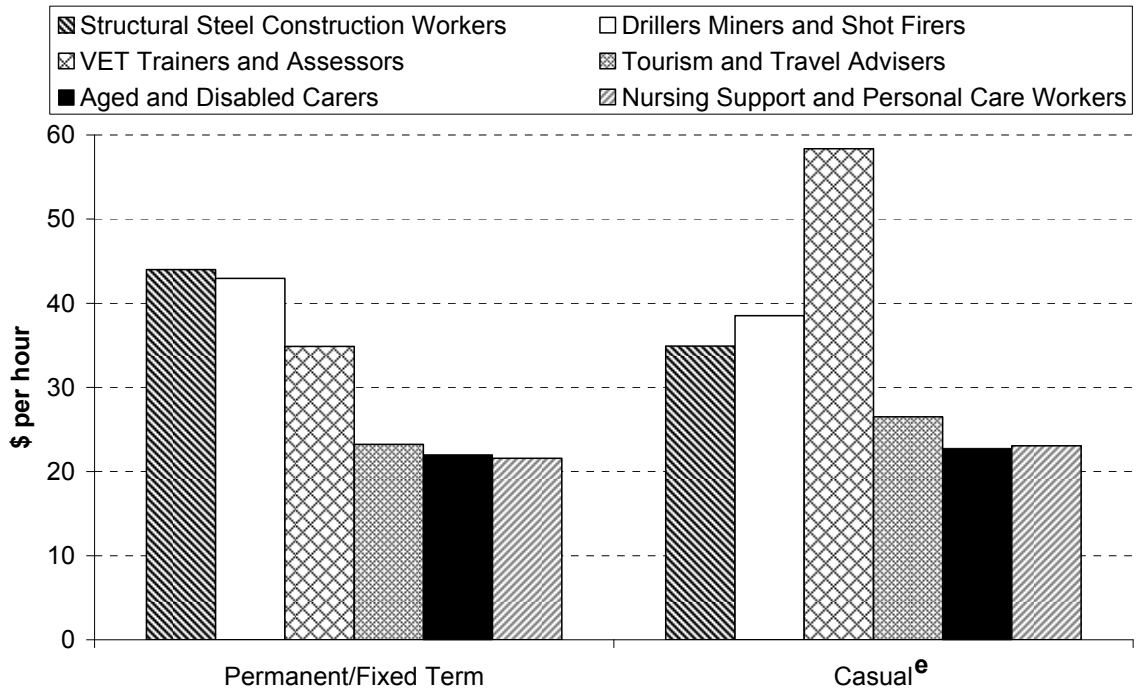
However, areas were identified where VET salaries are higher than those that can be expected in related occupations or industries:

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. (Department of Training and Workforce Development — WA, sub. 26, p. 4)

The latest ABS data on employee earnings and hours (ABS 2008) show clear differences between the hourly earnings of VET trainers and assessors, and the earnings of workers in a selection of alternative occupations (figure 7.1).[2]

2 Occupations have been chosen to reflect differences in hourly wage rates. These occupations are realistic alternatives, given the qualification fields of some groups of VET practitioners. For example, practitioners with a Certificate IV in Tourism might consider working as a tourist information officer as an alternative career, although they would not have needed to undertake a Certificate IV in Training and Education (TAE) to do so.

Figure 7.1 **Total earnings per hour, VET trainers and assessors and selected alternative occupations[a, b, c, d]**



a Total earnings measures ordinary time earnings plus overtime earnings. **b** These occupations are possible alternatives to VET teaching based on trainers and assessors' qualification fields. They have been selected to demonstrate that VET teaching and assessing can pay a higher rate per hour than some occupations but a lower rate than others. **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 quite 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 may not be included in their reported hours worked. This allowance may 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 (2008).

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 wages of employees in other occupations, the wages of VET trainers and assessors are usually not dependent on their field of expertise. Therefore, the hourly wage of the average VET trainer or assessor is used in these comparisons. [3]

In other occupations, however, the gap is reversed. Figure 7.1 illustrates that permanent and fixed-term VET trainers and assessors earn more than corresponding

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.

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 7.1. This difference may reflect the fact that the hourly rate for casual employees often includes an allowance for preparation and marking (VTA 2009 and table 7.2). Also, casuals in most occupations tend to earn an hourly rate premium in lieu of leave entitlements. The issue of casual pay in the VET sector is taken up again below.

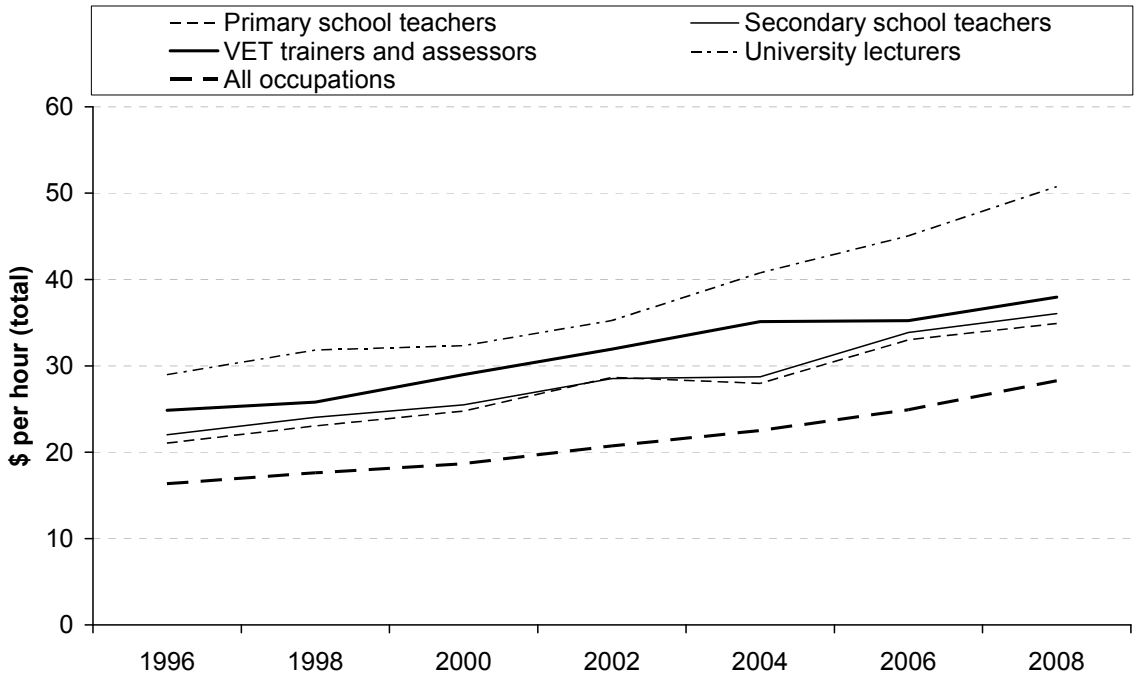
DRAFT FINDING 7.2

Wage structures in the TAFE sector take no account of the relative scarcity of industry skills being sought. As a consequence, TAFE can find it difficult to attract and retain some VET trainers and assessors with particular industry skills without resorting to overaward payments, while other VET trainers and assessors may be paid more than is necessary to recruit and retain them as trainers and assessors.

Relative to 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. Figure 7.2 presents data on changes over time in average earnings of VET trainers and assessors, primary and secondary school teachers, university lecturers and all occupations. Average hourly earnings of all VET trainers and assessors are below those of university lecturers and the gap has been 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 — different forms of employment, such as the share of casual staff, and ranges of seniority will influence the dispersion of earnings.

Figure 7.2 **Total nominal earnings per hour in education and all occupations[a, b, c]**



a Total earnings measures 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 (2008).

Variation based on location

Trends in average earnings of different groups of educators, depicted in figure 7.2, are the net product of differences between Australian jurisdictions. In the VET sector, as in many other industries, states and territories have latitude to implement their own pay scales and remuneration systems for VET workers in TAFE institutes. For example, the salary range of TAFE trainers and assessors in New South Wales extends higher than in any other jurisdiction and starts from a higher base level; at the other end of the scale, the Northern Territory has the lowest base level and one of the lowest maximum rates (table 7.1).

Differences in pay scales between jurisdictions is one factor influencing the attractiveness of VET relative to other industries. In consultations, the Commission has heard that 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 may also vary between metropolitan and non-metropolitan locations. 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 7.1 **Annual salary scales for trainers and assessors**[a]

Lecturer/teacher scales for TAFE and private RTOs (modern award)

Jurisdiction	*Entry level*		*Highest level*		*Average step*
	Level	$	Level	$	$
TAFE					
NSW	10	68 853	13	81 656	3201
Vic	1.1	48 055	5	74 624	2952
Qld	1	58 035	7	74 563	2361
SA	1	55 130	6	79 034	3984
WA	1	60 037	9	81 662	2403
Tas	1	48 577	9	75 323	2972
NT	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.39.

Source: Karapas, G., DFEEST, pers. comm., 15 September 2010.

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 the process is that employees of private providers now have award coverage, setting minimum standards. The award covers employees of private RTOs in instances where they are not covered by an enterprise agreement or award, and has a lower base-level salary (and much lower maximum rate) than applies to TAFE.

However, some providers covered by the new modern award feel disadvantaged, particularly in view of funding arrangements:

> The new Modern Award TESOL structure for community college teachers is unrealistic with the required qualifications and level of pay. (Department of Education and Training NSW, sub. 43, p. 2)

> [The modern award] has created some challenges. There are automatic rate increases to occur over the next 5 years which may 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. (Community Colleges Australia, sub. 53, p. 12)

Hourly pay rates in TAFE

Another important consideration for employees is the hours worked in return for their annual salary. Where hours differ substantially, hourly wage relativities become important.

Table 7.2 shows effective hourly pay rate schedules for trainers and assessors in TAFE. The rates for casuals are as specified in agreements for each jurisdiction. 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). For those jurisdictions with task-based rates, deriving an effective overall rate is complex, as it depends on the time allocated to each task. The hourly rates for ongoing staff have been calculated using annual salary ranges and information from the agreements on hours worked.

Trainers and assessors in New South Wales, Victoria and Western Australia, employed on an ongoing or fixed-term basis, earn about the same per hour as their casual colleagues, assuming that teaching makes up the bulk of a casual's workload. However, the rates estimated for ongoing staff do not account for overtime rates that would apply for work outside ordinary hours. Including overtime would increase hourly rates for ongoing and fixed-term staff, but leave casual rates unaffected.

It remains difficult to determine which of the two main TAFE forms of employment — casual and permanent/fixed-term — is more financially rewarding on a per-hour-worked basis. Nonetheless, the ability to carry out at least some job-related tasks from home can make casual employment in TAFE attractive to people working in industry as their main job, or those transitioning to retirement.

Table 7.2 also includes estimates of effective hourly pay rates for ongoing and casual trainers and assessors under the modern award. In the absence of any enterprise agreements or other awards, these rates would apply to VET workers in private providers. The modern award is a safety net, specifying minimum standards. As such, it has lower pay rates for both ongoing and casual trainers and assessors than apply to TAFE. However, the award specifies that each contact hour of teaching delivery counts as 1.5 hours of work by trainers and assessors (allowing for administration, assessment and consultation). This would change the casual rates relative to other states that have a different allowance, such as the Northern Territory, where the allowance is one or 1.5 hours for preparation.

Under the modern award, casual employment in private RTOs seems to pay more than ongoing employment.

Table 7.2 **Effective hourly pay schedules for trainers and assessors**[a]

Estimated $ per hour worked for TAFE and private RTOs (modern award)

	Ongoing staff		*Casual staff*					
			Teaching		*Exam supervision*		*Duties other than teaching*	
Jurisdiction	*Min*	*Max*	*Min*	*Max*	*Min*	*Max*	*Min*	*Max*
TAFE								
NSW	55.98	66.39	68.14	68.14	23.14	28.60	53.80	64.06
Vic	37.60	58.39	56.63	58.85	ns	ns	38.49	40.00
Qld	42.18	54.19	71.42	71.42	20.49	20.49	53.66	61.06
SA	37.33	53.51	42.65	87.25	19.40	51.60	28.43	58.17
WA	45.48	61.87	37.47	66.91	ns	ns	ns	ns
Tas	33.85	52.49	54.62	72.25	ns	ns	ns	ns
NT	28.96	51.21	40.40	77.45	ns	ns	ns	ns
ACT	44.13	59.38	72.12	72.12	ns	ns	45.55	45.55
Private RTOs (modern award)	20.60	27.19	23.68[b]	47.50[c]	ns	ns	ns	ns

[a] Hours worked per week have been calculated as 52 weeks less recreation leave, less non-attendance provisions (days of non-attendance, which the Commission understands are treated as recreation leave — see next section), multiplied by weekly effective hours of work. Weekly effective hours of work is total hours of work less non-attendance time (additional hours of non-attendance). [b] This estimate is calculated as annual salary, divided by 261 (days), multiplied by 1.25 and then divided by 7.6 (hours). It assumes an individual works a standard day of 7 hours and 36 minutes (corresponding to the 38 (ordinary) hour week that ongoing staff work) and is paid the daily rate specified in the modern award, based on the minimum annual salary. It includes the 25 per cent loading for casuals. [c] This estimate assumes an individual is paid according to calculations based on the maximum annual salary. ns not separately specified.

Source: Productivity Commission estimates based on the relevant industry awards and agreements.

Hours of work

Aside from their indirect influence on remuneration, hours of work directly contribute to the sector's attractiveness as a place to work. Relatively low weekly hours in some VET providers, relative to occupations in other industries, are a potential attractor for some 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)

> ACPET members report that while they cannot always meet the pay that is available to a trainer or assessor in their trade or area of specialisation, they attract and retain staff by ensuring the working environment is enjoyable and is able to accommodate the lifestyle needs of their employees. (ACPET, sub. 50, p.11)

There is considerable variation in the number and purpose of hours required of trainers and assessors in TAFE in the different jurisdictions (table 7.3). 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 7.3 and the *Crown Employees (Teachers in TAFE and Related Employees, Bradfield College and Teachers in TAFE Children's Centres) Salaries and Conditions Award 2009*). 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).

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 (as this provision is recognition for additional work and overtime) (Karapas, G., DFEEST, pers. comm., 16 November 2010). The remaining four weeks represent official paid leave (Karapas, G., DFEEST, pers. comm., 27 September 2010).

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 may be especially valuable to those who have carer duties, other jobs, or give work–life balance a high priority for other reasons.

Unless covered by an enterprise award or instrument, workers employed by private providers are covered by the modern award. Under the modern award, these employees are required to work longer hours over more weeks than those in TAFE (table 7.3), much like employees in other parts of the economy. However, this instrument is far less prescriptive on duties. Indeed, the only direction on time allocation is that a contact hour of teaching count 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 non-teaching duties.

The number of work hours specified in agreements and awards may 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 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' (2004, p. 6). Survey data (DEEWR 2010h) 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.

Table 7.3 **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.

Work arrangements

Some participants regarded casual employment as 'characterised in terms of low pay, lack of standard employment rights and entitlements and high levels of insecurity' and 'a response to pressures on staffing budgets' (ACTU, sub. 31, pp. 14–15). These participants did not agree that casual employment could respond to a genuine preference of employees. Some participants argued that casualisation of the VET workforce held 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)
>
> Whilst casual lecturers can [complement] permanent staff some of this advantage is lost when they are deployed to undertake essential non-teaching duties eg. providing advice to students and potential students; administration of students and resources; undertaking recognition of prior learning assessments etc. This may result in these duties being transferred to a permanent employee which has the effect of further exacerbating a critical staffing situation by placing greater administrative and non-teaching burden on permanent staff. (Polytechnic West, sub. 5, pp. 6–7).
>
> 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). (Community Colleges Australia, sub. 53, p. 10)

Further, casual employment can reduce the attractiveness of working in VET:

> 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)
>
> The presence in many RTOs of high proportions of casual staff contributes to the difficulties associated with recruiting and retaining high quality staff. (Prof. Erica Smith, sub. 39, p. 8)
>
> Providers, particularly private RTOs, understand that to retain good teachers/trainers, permanent jobs need to be offered. (Prof. Erica Smith, sub. 39, p. 2)

However, there seem to be 'competing industrial relations issues, for example, people wanting tenure versus mobility of the workforce' (DFEEST, sub. 54, p.11). Indeed, the identity of VET workers as dual professionals can make casual employment in VET an ideal complement to a job in industry:

> … the use of casual employment can be interpreted as a positive sign in some respects. It can be that VET practitioners work on a casual basis as a VET teacher or trainer, while their main employment is in industry. (ACTU, sub. 31, p. 14)

Professional standing of the VET workforce

Professional standing of the VET workforce may 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. The Commission is not aware of large-scale surveys that rank the VET workforce above or below other occupations in terms of public recognition and approval. Nor is the Commission aware of evidence suggesting that professional standing is a problem that can be successfully addressed through policy mechanisms. In 2007, Polytechnic West (previously 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.

However, there are options available to concerned stakeholders to raise the standing of employment in the VET sector, if it is perceived to be unduly low (box 7.4).

Box 7.4 **Is rebranding 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, p. 97). While a name change would not, of itself, change the image of the modern VET worker, it could form part of a wider re-branding strategy for the sector. Such a strategy would require in-depth research and should be the responsibility of interested stakeholders.

Another possibility might be to set up a national body to represent the VET workforce nationally, much as VISTA does for VET trainers and assessors in Victoria. 'An independent body of VET professionals could help attract more people to the profession by delivering a profile to the VET workforce' (ACPET, sub. 50, p. 7). Again, this option could form part of a branding strategy.

Occupational registration may also have an influence on standing and could be considered as part of a rebranding strategy. Registration is examined in chapter 8.

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 executed by leading providers. Such a strategy might include changing the name of some institutions from TAFE to Polytechnic as some providers have done.

Career pathways

In terms of seeing VET as a long-term career, Simons et al. (2009) found that, in 2006, a majority of staff (59 per cent of teachers, 55 per cent of educational managers and 53 per cent of general staff) planned to remain in the VET sector for five years. Wheelahan and Curtin (2010, p. 30) found that 74 per cent of managers, 72 per cent of head teachers and 62 per cent of teachers saw themselves in VET (in similar or different roles) in five years' time.

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).

While 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), available information suggests many others achieve a VET career. Mobility data from a survey in 2010 (table C.39) 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 career pathways for those wanting a career in VET. These pathways may involve movement into more senior roles of the same type (such as course coordinators) or between roles (such as from trainer or assessor or general staff into other VET professional roles).

Retirees and semi-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. (Community Colleges Australia, 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, p. 13).

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).

However, the situation should not be made more difficult by erecting financial or other barriers. Skills Australia advocates that these individuals 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 may be possible for the VET sector to attract back workers in 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 213 people who held a 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 as well as higher qualifications. However, they are suggestive of a sizeable group of suitably-qualified people who are currently available outside VET.

Use by the VET sector of workers from other industries could also take the form of sharing arrangements.

Partnerships between RTOs and industry may involve teaching fellowships or industry release schemes under which trainers and assessors are formally shared between the two sectors. Flexible working arrangements would allow individuals to contribute to both sectors, although this would require removal of mobility impediments between VET and industry:

> Taking advantage of flexible working arrangements for highly skilled industry subject matter experts to contribute specialist skills would also ease recruitment pressures. Initiatives to promote engagement and collaboration with industry were generally favourably viewed by all industry participants, although administrative hurdles limit this interaction. (EE-OZ Training Standards, sub. 20, p. 12)

Such administrative hurdles as caps on the use of casuals or disincentives in superannuation arrangements need to be addressed.

There may also be scope for partnerships between VET providers or, given the blurring of boundaries between the other education sectors and VET, other education providers. For example, partnerships between RTOs and universities may lead to consolidation rather than duplication of VET offerings, and shared use of

trainers and assessors to deliver these courses. To some extent, this last arrangement already occurs as:

> 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. (Community Colleges Australia, 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 around 23 per cent of the total TAFE workforce (ABS 2006c). Overseas recruits would need to meet the industry currency and qualification standards that apply domestically.

Administrative load and work conditions

It has been claimed by some that incentives to work in the education industry are reduced by perceptions of stressful work conditions and burdensome administrative tasks. According to ANTA (2004):

> 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. (p. 76)

Further, increases in administration and paperwork have created difficult working conditions, with some staff working long hours to cope with the additional work:

> 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. 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. … The challenge is to ensure that

> non-teaching duties and tasks do not reduce the attractiveness of a VET career. (Polytechnic West, sub. 5, p. 7)
>
> From a regulation and compliance focus, administration requirements have increased significantly. (Community Colleges Australia, sub. 53, p. 11)

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 heavy administrative loads among VET managers and leaders might reflect the demands of the heavy 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. (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)

Job satisfaction

A number of researchers have studied staff satisfaction in the VET sector. Simons et al. (2009) found that 30 per cent were very satisfied, 40 per cent were satisfied, 21 per cent were somewhat satisfied and 5 per cent were not satisfied with their careers in VET. Satisfaction was slightly lower amongst teachers than general staff and educational managers.

Some VET providers, for example, South West TAFE, publish staff satisfaction data. In 2007, headline satisfaction was high amongst staff (90 per cent of staff agreed that South West TAFE was a good employer). However, some staff were concerned about aspects of the Institute's performance, including support from department managers, communication within the Institute and changes to work practices being supported by professional development (South West TAFE 2008).

The Australian Education Union (AEU 2010) recently conducted a survey of the TAFE workforce (between 8 February 2010 and 1 March 2010). In relation to the two years preceding the survey, 53 per cent of respondents said that their budgets had decreased, 49 per cent said that class sizes had increased, and 84 per cent said that their workload had increased. However, the effect of these changes on job satisfaction is unclear.

7.4 Ensuring capacity and efficiency through reform

In this section, the Commission explores measures to mitigate the risks of insufficient workforce capacity and improve the efficiency of workforce arrangements.

Overcoming barriers to entry

The capacity of any sector to attract workers (or vary their number or mix) is dependent, among other things, on whether any barriers to entry exist. For example, minimum requirements, such as qualification levels or a requisite length of industry service, may prevent potential workers from joining an occupation or industry.

One barrier to entry into the VET workforce arises from the Australian Quality Training Framework (AQTF) requirements for vocational qualifications and experience. In order to work in an RTO, a trainer or assessor requires a vocational qualification at least equivalent to that which is potentially to be taught, and current industry skills relevant to the area of delivery (Australian Government 2010a). There is also a minimum requirement for RTO trainers and assessors to hold (unless supervised) a Certificate IV in Training and Assessment (TAE). This limits, to some extent, the number of potential recruits the sector can target. However, it is common for VET providers to recruit candidates who do not hold this qualification and assist them in gaining it over two years.

There may be instances when it might be efficient to waive the requirement to hold a Certificate IV in TAE:

> … nurse educators holding post graduate qualifications in education are forced to undertake the [Certificate IV in TAE] to enable them to deliver nursing education in the VET sector. This may prove to be a deterrent for them to enter the VET sector as nurse educators. The [Australian Nursing Federation] supports a more diverse qualification for entry of nurse educators into the VET sector. (Australian Nursing Federation, sub. 12, p. 11)

As a related example, for a high school teacher to deliver VET-in-Schools, he or she needs to obtain the Certificate IV in TAE. This is despite the fact that high school teachers have, by definition, already acquired the pedagogical skills necessary to teach teenagers. Participants, however, have not raised this as an issue with the Commission.

INFORMATION REQUEST

The Commission seeks further input on whether VET-in-Schools teachers should be required to have the Certificate IV in Training and Education.

While the issue of minimum vocational and teaching qualifications requirements has clear capacity implications, it is chiefly a capability issue, which is dealt with in chapter 8.

Reforms to human resources management

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 the allocation of tasks to jobs, the combination of roles and the alignment of incentives and outcomes.

In relation to human resources management in TAFE, it has been observed that in:

> … some cases the degree of external control by some government agencies on both policy and practice results in highly prescriptive human resource management practices which may limit flexibility. (Smith and Hawke 2008, p. 8)

Allocation of tasks to jobs

Job analysis and design involves specifying the characteristics of a job (including the tasks to be done) and the skills and other requirements needed by someone to perform that job (Kramar et al. 1997). This process results in the job descriptions and specifications that underpin performance management, recruitment, selection and training and development programs. Job analysis and design are, therefore, important contributors to the efficiency of an organisation's workforce.

Many participants suggested that that the nature of VET delivery was 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. (Department of Training and Workforce Development — WA, 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 design in the VET sector has 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)

TAFE workers … will need to come to terms with much more flexibility in delivery. (The Gordon, sub. 9, p.11)

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
- but 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.

They also argued that 'constraining teacher workloads by continual comparison with face-to-face delivery limits local flexibility' (p. 11). One solution they offered was to specify total hours of work:

Measurement of all hours of work undertaken by teachers would be simpler and would be a means of recognising the complexity in different programs, student groups, program lifecycles and teachers' experience. (McNickle and Cameron 2003, p. 11)

This could usefully be incorporated into job design and industrial instruments.

Combination of job roles and employment arrangements

The increasingly competitive training market requires greater flexibility in order to increase:

- recognition of prior learning;
- workplace delivery and traineeships;
- the incorporation of on-line technology into training; and
- the diversity of learners and the diversity of contexts in which learning occurs. (Department of Training and Workforce Development — WA, sub. 26 (attachment 3), pp. 1–2)

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. (Department of Training and Workforce Development — WA, sub. 26 (attachment 3), p. 4)

> In general [effective full-time] staffing numbers appear relatively static but, anecdotally, there is an increasing reliance on the use of casual staffing. … 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)

Casual employment can provide the VET sector with both numerical and functional flexibility. Casualisation 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). This model has advantages for the sector, as well as some risks.

Some see extensive use of casuals as undesirable. For example, the New South Wales 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)

Other participants emphasised the flexibility provided by the use of casuals. For example, Polytechnic West stated:

> 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. (sub. 5, p. 6)

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.

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. (Department of Training and Workforce Development — WA, sub. 26 (attachment 3), p. 2)

The unions see the current bargaining arrangements as crucial:

> … it is vital that these structures are in place to provide access to skill based career paths across the industry that link salary progression to improvements in formal qualifications and improvements in skills acquired and utilised in the workplace. Collective bargaining where VET practitioners have the right to be represented by their union in negotiations with their employer continues to provide the best vehicle for addressing issues of productivity and service delivery and providing reasonable wages

and conditions across the profession, and is recognised as such under the Fair Work legislative framework. (ACTU, sub. 31, p. 20)

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.

Limitations on the use of casual staff can arise from industrial relations arrangements that do not appear to recognise the benefits that use of such staff can have in enhancing flexibility and meeting, for example, '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)

TAFE enterprise agreements in many states discourage the use of casuals and some states even impose formal caps (table 7.4). 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 may 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)

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.

Table 7.4 **TAFE agreement limits on the use of casuals**

Jurisdiction	*Limits on use of casual staff*
NSW	None
Vic	Yes — discouraged[a]
Qld	Yes[b]
SA	Yes — fixed level[c]
WA	Capped at 25 per cent of the workforce
Tas	Capped at 15 per cent of the workforce
NT	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] 'CIT will endeavour to minimise the use of temporary and casual employment.'

Source: Relevant industry awards and agreements.

Alignment of incentives and outcomes

As discussed earlier, existing industrial instruments for the public VET sector are very prescriptive about working arrangements with respect to work time (table 7.2). 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:

> The constraints imposed by VET workforce awards, institutional structures and over reliance on replicating/simulating expensive industry conditions in an institutional setting have to be addressed to make the VET system productive and [responsive]. (Construction and Property Services Industry Skills Council, sub. 46, p. 4)
>
> 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)

Funding arrangements in the publicly-funded VET sector can compound this lack of flexibility of TAFE industrial relations settings by linking payment to inputs (hours of teaching delivered) rather than outcomes (number of students passed or firms serviced):

> Changes to funding models are required to ensure that adequate funding is available to provide a skilled VET workforce to deliver training in remote and regional Australia. In addition, a 'one size fits all' funding model for publicly funded training does not always allow flexibility for the VET sector in employment conditions and recognition of high quality performance; nor does it always allow for the needs of highly technical occupations that come at greater delivery cost. (Minerals Council of Australia, sub. 23, p. 14.)

The submission of the private VET sector to the Australian Industrial Relations Commission on the modern award for the sector highlighted rigidities in TAFE industrial relations arrangements. In this submission, ACPET argued strongly against extending the features of TAFE awards and agreements to private providers (box 7.5). Adult Community Education (ACE) providers — now also covered by the modern award — also expressed concerns about the provisions of that award as 'the increasing [industrial relations] complexity and regulation for staff requirements does … make it more challenging for [Community Colleges Australia] members to appoint employees' (Community Colleges Australia, sub. 53, p. 12).

Box 7.5 **Private providers' views on TAFE industrial instruments**

Industrial awards and agreements specify the ordinary hours of operation during which employees are expected to work. 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.

These industrial instruments also prescribe how time is spent. For example, in the modern award, which applies to public and private provider employees, an hour of delivery counts as three hours of work to allow for preparation, assessment and student consultation. However, in some providers, trainers and assessors may have specialised roles that are devoted to either teaching, assessment or course development, making time allocations for the other tasks redundant. For example, delivery of hairdressing education and training is typically accomplished by demonstration and supervision. These trainers and assessors spend their time in direct delivery, rather than on ancillary activities.

Source: 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, as suggested by The Gordon:

> Individual teacher employment contracts based within a simplified teacher industrial agreement could provide benefits for staff and improved organisation productivity. For

example, teachers could choose to do significantly more teaching and less development of teaching material. (sub. 9, p. 18)

The Commission considers that employment contracts in the TAFE sector should 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 much 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. To the Commission's knowledge, 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 (table 7.1).

By contrast, performance management linking pay to performance is used in about a quarter of private RTOs (Smith and Hawke 2008).[4] No information is available about ERTOs more specifically. However, it is likely that performance-based pay for enterprise trainers is as widespread as in the whole of the market sector.

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, p. 38).

Employee representatives have expressed doubts about the usefulness of performance pay arrangements:

4 Smith and Hawke (2008) conducted a survey of 114 private RTOs and found that 23 per cent reported that linking pay to performance. In contrast, for TAFE, 'the linking of pay to performance [was] almost completely absent in the survey responses' (p. 21).

> 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)

However, 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).

INFORMATION REQUEST

The Commission seeks further input on the effects of the introduction of the modern award on industrial relations settings and performance incentives in private VET providers.

While 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.

DRAFT RECOMMENDATION 7.3

State and Territory governments should not have jurisdiction-wide industrial agreements for the TAFE sector. Current arrangements include caps on the use of casual staff, are prescriptive on hours to be worked in TAFE and encourage uniform wages and conditions. These have the effect of limiting the ability of TAFEs to respond quickly to changes in demand and disadvantage them relative to private RTOs. TAFE institutes should be able to select the mix of employment arrangements, supported by contemporary human resource management practices, that best suits their business goals.

8 Improving the workforce's capability

Key points

- When well taught, the Certificate IV in Training and Education (TAE) is an appropriate qualification for development of the essential foundation competencies required by vocational education and training practitioners.
- Concerns about the quality of delivery of the Certificate IV in TAE are long-standing, persistent and supported by recent audit evidence. Audits need to be more frequent and intensive, and audit results should be made public.
- The Certificate IV should involve more supervised learning, and external assessors should evaluate students' competence in facilitating learning.
- 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 TAE within two years of commencing employment in the sector
  - enterprise 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 the Certificate IV.
- The VET workforce currently meets the needs of many learners and firms, however:
  - while there is little evidence currently of capability gaps in delivery to students who might experience disadvantage, this 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 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.
- Opportunities for ongoing professional development within the sector are not adequate.

'[C]apability represents the potential ability of [the VET] workforce to conduct effective training and assessment' (IBSA, sub. 8, p. 1). It rests on the knowledge, skills and competencies of the workforce.

Capable VET practitioners require adequate training and assessment competency, together with vocational competency defined 'as broad industry knowledge and experience, usually combined with a relevant industry qualification' (NQC 2010b, p. 85). Practitioners tend to enter the workforce from industry (table C.28), so need to focus initially on developing their competency in training and assessment. After spending time in the VET sector, maintenance and further development of both training and assessment, and vocational competency require ongoing professional development.

This chapter addresses issues relating to the current and future capability of the VET workforce. Trainer and assessor capability is the prime focus, but managers and other members of the workforce are also key to the overall effectiveness of the VET workforce.

As discussed in previous chapters, the VET sector appears to have 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 adequate, but there are several shortcomings that need to be addressed, including:

- Australian Quality Training Framework (AQTF) requirements around minimum training and assessment competency standards, and issues with the mandated Certificate IV qualification
- a number of specific areas where the sector faces capability constraints that are likely to become more significant in the future
- vocational competency and maintenance of industry currency
- ongoing professional development.

Some study participants have suggested, further, that a registration scheme might be a useful way of addressing these concerns.

Analysis of concerns about training and assessment is presented in section 8.1. Discussion of specific capability issues is contained in section 8.2, and issues relating to vocational competency in section 8.3. Evidence on ongoing professional development is presented in section 8.4. Registration schemes are assessed in section 8.5.

8.1 Supporting high quality foundation practice

Issues relating to the teaching and assessment competency of trainers and assessors in the early years of their careers are considered in this section.

A short 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. These 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). AQTF 2001, therefore, represented a raising of the regulatory bar. It is not clear why the

Certificate IV was adopted, rather than a degree qualification, but state and territory resourcing concerns were one factor in the decision.

Today, required characteristics of trainers and assessors working within RTOs are set out in element 1.4 of Standard 1 of AQTF 2010. In the broad, required minimum training and assessment competencies are very similar to those in AQTF 2001 — 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 Training and Education Training Package (TAE10), endorsed by the National Quality Council (NQC) in May 2010, is now the reference Package.

Apart from confirming qualification requirements, the AQTF 2010 introduced changes to element 1.4 which, together with the NQC Determination of 18 December 2009, 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.

Initial training and assessment competency

The Certificate IV

The wide range of study participants' views about training and assessment competency reflects the longstanding debate about the appropriate level of qualification required for effective delivery of VET training and assessment (box 8.1). The current qualification was developed to reflect the competencies that the VET industry believes are the essential foundations for trainers and assessors:

> 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)

The majority of study participants agreed that the Certificate IV meets the essential knowledge and skill needs of new practitioners. Furthermore, based on ongoing research into practitioners' views about the Certificate IV from the Training and Assessment Training Package (Certificate IV in TAA), Berwyn Clayton, VET researcher and education expert, has concluded that 'when taught well, the CIV [Certificate IV in] TAA can provide important foundational training and assessment skills for practitioners entering the field' (cited in Guthrie 2010, p. 16).

Box 8.1 **Study participant views about the Certificate IV**

Many participants felt that the Certificate IV is a sound entry-level qualification, with some reservations:

> The Training and Skills Commission's policy work shows there is general agreement that the Certificate IV in Teaching and Assessment is appropriate as the entry level qualification for VET practitioners if taught well. (South Australian Training and Skills Commission, sub. 51, p. 5)
>
> While VU [Victoria University] holds that the revised qualification could benefit from the inclusion of supervised teaching practice, the qualification does provide a minimum baseline that sufficiently equips individuals to teach and assess existing programs. (Victoria University, sub. 11, p. 4)
>
> Our view is that this [the Certificate IV] is the minimum and that this should be the base on which industry and educational skills are built. (Australian Industry Group, sub. 14, p. 8)

However, some felt that the qualification is inadequate in some respects:

> Enterprise registered training organisations believe that the Certificate IV is not adequately geared to the enterprise training environment. (Churchill, J., Enterprise Registered Training Organisation Association, pers. comm., 20 October 2010)
>
> Trainers and assessors require education and training to be able to train effectively learners with special needs. The current qualification Certificate IV in Training and Assessment does not provide this specialist training. The replacement qualification, Certificate IV in Training and Education, does not appear to provide it either. (National VET Equity Advisory Council, sub. 58, p. 4)
>
> … the only literacy and numeracy Unit in the TAA is an optional unit. This could at least be made compulsory in order to support the core need for all VET teachers to have an awareness of, and at least some skills in identifying students' skills in numeracy. (Mathematical Association, sub. 27, p. 6)
>
> 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)
>
> .... 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)

Some believe that all trainers and assessors should hold a teaching qualification above the Certificate IV level:

> The Cert IV TAE qualification, currently the requirement for VET trainers, provides a preliminary basis in pedagogical theory although few industry representatives considered this an ideal level of training and many express concern at the declining proportion of VET teachers that have access to high level vocational teacher education programs. (EE-Oz Training Standards, sub. 20, pp. 5–6)
>
> The Federation strongly supports the need for TAFE teachers as VET professionals to have university level teaching / educational qualifications, as does the teaching profession in schools. (NSW Teachers Federation, sub. 47, p. 9)

Nonetheless, the views presented in box 8.1 reflect concerns that the Certificate IV:

- is only adequate if taught well
- would be strengthened through the inclusion of practicum (supervised training delivery in a real classroom)
- does not meet the needs of enterprise trainers and assessors
- does not adequately prepare trainers and assessors to train learners with special needs
- might not be adequate for people delivering higher-level qualifications.

The quality of delivery, practicum and the needs of enterprise trainers and assessors are discussed in the following sections. The skills needed to train learners with special needs and delivery of higher-level qualifications are analysed in section 8.3.

Low quality delivery of the Certificate IV

Concerns about the quality of delivery of the Certificate IV are not new. The NSW Vocational Education and Training Accreditation Board, for example, conducted a strategic audit of the qualification 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 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 increase the risk profile of RTOs delivering the qualification, with 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)

However, quality concerns persist. A national strategic industry audit of the Certificate IV in Training and Assessment has recently been completed by the WA Training Accreditation Council, on behalf of the NQC.

In Western Australia, based on an audit of 24 RTOs:

> The audit 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 Western Australian component of the national audit include: 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 continuous professional development of trainers and assessors, in particular, around assessment.

Although national outcomes of the audit remain under consideration (NQC, sub. 52, p. 4), based on the largely adverse conclusions from New South Wales and Western Australia, the Commission believes that delivery of the Certificate IV should retain its high risk status. Moreover, the high levels of non-compliance, despite the qualification having a high risk status, indicate a need for more frequent and focussed audit attention on RTOs delivering this qualification.

Furthermore, while the Commission supports the Western Australian recommendations, it is unconvinced that they will be sufficient to address concerns about quality. Concerns about delivery of the Certificate IV are long-standing and persistent — suggesting equally long-standing and persistent gaps in registration and auditing systems. A recent audit of the Victorian regulator raised significant concerns about the efficacy of auditing in that state. The Victorian Auditor General concluded that 'VRQA [the Victorian Registration and Qualifications Authority] cannot reliably assure that it has effectively regulated VET providers' (VAGO 2010, p. 1).

Publication of AQTF quality indicator data for individual providers would be one strategy to incentivise providers to focus on quality. Another would be publication of compliance data from audits, as happens in the United Kingdom (appendix F). This would also incentivise providers to focus on the quality of training and assessment, and registration authorities on the quality of their work.

DRAFT RECOMMENDATION 8.1

The Certificate IV in Training and Education (TAE40110) should maintain its status as a high risk qualification. Auditing by state and territory regulators of RTOs with this qualification on their scope needs to be more frequent and more intensive.

DRAFT RECOMMENDATION 8.2

State and territory regulators should publish information on audit outcomes and performance indicators for RTOs, to further incentivise providers to focus on quality training and assessment.

Practicum

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
> - identify and respond to diversity and individual needs
> - access and use documented resources and support personnel to guide inclusive practices. (DEEWR 2010g, p. 144)

The Commission considers that supervised delivery should play a role in the determination of competence in this critical capability. Given the concerns about delivery of the Certificate IV discussed above, the Commission is also unconvinced that assessment of competence in this core skill is adequate in all RTOs. The Commission, therefore, recommends supervised delivery of at least four training sessions, two of which should be in the presence of an external assessor.

DRAFT RECOMMENDATION 8.3

Industry and Business Skills Australia 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 consecutive supervised training sessions. An assessor from outside an RTO delivering the unit should evaluate a student's competence through observation of two of these sessions.

The Commission notes that TAEDEL401A is a new core unit within TAE10. 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 CIV TAA 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 ongoing professional development.

Qualification needs of enterprise trainers and assessors

During consultation in 2006, as part of continuous improvement of the TAA04 Training Package, IBSA found that:

> 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 for enterprise trainers and enterprise trainers and assessors, which meet industry requirements for members of these two groups when working under the supervision of someone who holds the Certificate IV. The Skill Sets have recently been updated to reflect units in TAE10. The Enterprise Trainer and Assessor Skill Set includes four units targeted to the needs of enterprise trainers and assessors, that lead to a Statement of Attainment (box 8.2).

Box 8.2 **Enterprise trainer and assessor Skill Set**

Target group

Enterprise trainers and assessors working in an enterprise RTO or in an enterprise that works together with an RTO in an auspicing arrangement. These people deliver and assess nationally endorsed units or qualifications.

Units

TAEASS401A Plan assessment activities and processes; TAEASS402A Assess competence; TAEASS403A Participate in assessment validation; TAEDEL301A Provide work skill instruction.

Pathway

These units provide credit towards TAE40110 Certificate IV in Training and Education.

Suggested form of words for Statement of Attainment

These units from TAE10 Training and Education Training Package meet industry requirements for enterprise trainers and assessors.

Source: Skill Sets, http://www.ibsa.org.au/Portals/ibsa.org.au/docs/Skill%20Sets/Enterprise_Trainer_x_Assessor_Skill_Set.pdf (accessed 5 November 2010).

Conclusions — high quality educational practice

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 which linked outcomes to trainer and assessor characteristics. The Commission has not yet located analysis of this type, and would welcome input from study participants. The Commission considers that there might be some value in the National Centre for Vocational Education Research (NCVER) conducting or commissioning a rigorous study of this issue.

INFORMATION REQUEST

The Commission seeks further information on any quantitative studies, with a focus on Australia, that seek to identify the relationship between the characteristics of trainers and assessors with the quality of student outcomes.

In spite of this comparatively low level of teaching qualifications among VET trainers and assessors, student outcomes are good and satisfaction rates are high (chapter 5).

Too few VET trainers and assessors possess the Certificate IV in TAE or equivalent educational qualifications (chapter 3).

However, the Commission notes that the Certificate IV represents the competencies deemed by industry to be necessary for competent independent training and assessment. The Commission, therefore, considers that any practitioner employed by a non-enterprise RTO, should either hold, or be working towards, the qualification.

The Commission judges, further, that the NQC Determination relating to training and assessment competencies needs to be amended to:

- limit to two years the time a VET practitioner can work in the sector — even under supervision — without acquiring the Certificate IV from TAE10, or an equivalent qualification
- set a specific qualification requirement for enterprise trainers and assessors.

The choice of two years for acquisition of the Certificate IV was guided by evidence that some providers set this time frame for acquisition of the qualification by new practitioners, for example, TAFE Institutes in Western Australia.

The Commission acknowledges that a strengthened requirement with respect to the Certificate IV might represent a barrier to employment in the sector for some potential VET trainers and assessors. However, given that this qualification provides

the foundation skills that the industry has determined are needed by practitioners, it is reasonable to set this as the minimum requirement for all practitioners.

Skill Sets developed by IBSA identify the competencies that industry deems necessary for enterprise trainers, and enterprise trainers and assessors working under supervision. The Commission judges, therefore, that members of these groups should either hold, or be working towards, these Statements of Attainment.

The Commission does not foresee a net benefit arising from the introduction of a qualification requirement for industry experts, that is, people who deliver a guest lecture once or twice per semester. The UK experience, for example, has been that mandatory qualifications create barriers to entry for some potential staff (appendix F). However, given the likelihood that some industry experts will, over time, increase the intensity of their involvement with VET, 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 Certificate IV in TAE.

DRAFT FINDING 8.1

On balance, the Commission concludes that the Certificate IV, when well taught, is an appropriate qualification for the development of essential foundation competencies for VET practitioners.

DRAFT FINDING 8.2

Many people actively engaged in the VET sector as trainers and assessors do not have the necessary minimum educational qualification of the Certificate IV in TAE or an equivalent qualification.

DRAFT RECOMMENDATION 8.4

Within two years of commencing employment, VET practitioners should have completed the Certificate IV from TAE10. Industry experts, working under supervision, should be encouraged but not required to obtain a Certificate IV in TAE. Within two years of commencing delivery of training or assessment, enterprise trainers and assessors working under the supervision of someone with the Certificate IV, should have completed the Skill Set relevant to their role.

Ability of RTOs to deliver more Certificate IVs

The Commission's recommendations that more trainers and assessors have the Certificate IV in TAE, together with recommendations to improve the quality of this

qualification, raise questions about the ability of the sector to deliver, over the short-term, such an increase in the quantity and quality of the Certificate IV in TAE.

In recent years, there has been significant delivery against the TAE's predecessors — the BSZ98 and the Certificate IV in TAA:

- Course enrolments by individuals have been relatively steady, at between 26 000 and 28 000 annually between 2005 and 2008.
- Unit enrolments increased from 176 000 in 2005 to 300 000 in 2008.
- Annual course completions over the four years to 2008 ran at between 8000 and 15 000 annually (IBSA 2010a).

The Commission suggests that new entrants to the VET workforce should be the initial priority for attainment of the Certificate IV, along the lines of the Commission's recommendations.

Further, initial Productivity Commission estimates are that a minimum of 36 000 VET practitioners, already working in VET, do not currently hold a Certificate IV. Based on the unit completion requirements of the Certificate, an additional 288 000 units would be required to meet the qualification needs of this group.

Existing VET practitioners without the Certificate IV would comprise a mix of relatively recent recruits and longer-tenured staff. The first group would more than likely need to complete the entire set of course units. The second group would be likely to receive some recognition of prior learning (RPL) or recognition of current competence (RCC) of their VET teaching experience. Productivity Commission analysis of DEEWR data (DEEWR 2010h) indicates that 82 per cent of existing VET practitioners who do not currently have the Certificate IV, and are not studying for it, have tenures in the VET sector of two years or more (data not shown). This suggests that RPL and RCC could go some way towards reducing the number of units having to be delivered to existing VET practitioners.

Nonetheless, requiring existing VET practitioners to gain the Certificate IV qualification over the next two years could lead to a sizeable increase in annual enrolments over the short-term. This might be met through existing RTOs delivering more training and the emergence of new providers.

It is not clear to the Commission that the VET sector would be readily able to supply an increase in delivery of this magnitude while maintaining, let alone improving, quality. There is a risk that the existing problems with compliance and quality assurance for RTOs delivering the Certificate IV, already noted, could be exacerbated by a requirement that all current VET practitioners obtain the

Certificate IV within two years. A longer transition period might be appropriate for existing VET practitioners, to enable better training programs to emerge.

INFORMATION REQUEST

The Commission seeks information on the ability of RTOs delivering the Certificate IV in Training and Assessment to significantly increase their scale of delivery while also improving quality and compliance. It would also welcome information on the ability of state and territory regulators to more intensively audit and enforce compliance in the event of an increase in the number of RTOs delivering the Certificate IV. Finally, the Commission seeks views on the appropriateness of increasing from two to five years the transition period during which existing VET practitioners should be required to gain a full Certificate IV.

8.2 Workforce capability gaps?

As discussed in chapter 6, a range of factors driving change in the VET sector are having an impact on the expectations placed on the VET workforce. They imply a need for capability in a number of domains, 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 RPL or RCC; delivery within workplaces; and management skills more broadly.

Current, and potential future, capability needs in each of these areas are considered below.

Capability in delivery to learners who experience disadvantage

A significant, and increasing, proportion of the VET student population has characteristics that indicate the potential for disadvantage (chapter 6). Members of disadvantaged groups tend to require more from the VET workforce, than do their peers. 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. (New South Wales Government, sub. 57, p. 10)

It is part of the VET mandate to assist such students. As the NSW Government noted, for example, the NSW *Technical and Further Education Commission Act 1990* 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 around equity and access considerations are set out in TAE10. 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 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 TAE10.

In terms of VET's performance in this area, module completion rates for Indigenous students of students with disability in the publicly-funded VET sector lag those of their peers, and students from these groups are overrepresented at lower qualification levels. This is especially so in the case of Indigenous students (chapter 5). Data on the reasons that students do not continue with training, however, 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).

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 two 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.[1]

- 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.)

The data do not suggest, overall, that students from cohorts that might experience disadvantage are markedly less satisfied than their peers with their VET experiences. In fact, the data suggest that the VET workforce currently copes well with the needs of the vast majority of students who might experience disadvantage. This is consistent with the Australian Education Union's (AEUs) observation that:

> … the enduring theme of all the AEU's engagement with its TAFE teacher members is their commitment to students, and to a high quality educational experience for all … who turn to TAFE needing excellent preparation for their chosen career, and often a second or even a first chance of participating in society in a meaningful and productive way. (sub. 34, p. 9)

Nonetheless, some study participants pointed to possible skill gaps relevant to disadvantaged learners within the current VET workforce:

> 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. 58, p. 7)

> Dealing with disadvantaged learners and those with LLN deficiencies requires special teaching and learning techniques and skills to be brought to bear that are not sufficiently well developed or readily available in VET. (Construction and Property Service Industries Skills Council, sub. 46, p. 4)

> 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, sub. 26, p. 2)

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 increased capability in the future (box 8.3).

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[1] Less than 5 per cent of Indigenous graduates disagreed with these statements.

Box 8.3 Prevalence of disadvantaged learners points to greater capability needs in the future

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 Islanders). (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)
>
> 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, and specialist qualification offerings are now available. As discussed further in section 8.4, ongoing professional development opportunities should also address this need. However, the Commission would be wary about any initiatives that mandated attendance at professional development across the entire VET practitioner workforce. It would be preferable if individuals' skill gaps in this area were identified and addressed, as required.

Looking ahead, the capability of the workforce in meeting the needs of students who might experience disadvantage, and the outcomes and experiences of these students, should be monitored on a three to five-year basis.

Challenges relating to Indigenous trainers and assessors

Attainment of the national agreement target on Indigenous employment outcomes (discussed in chapter 4) will require even greater participation by Indigenous learners in education and training.

Through a stocktake of research on good practice, Miller (2005) identified seven key factors that led 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.

Reflecting Miller's (2005) findings, the National VET Equity Advisory Counsil (NVEAC) observed that:

> … 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. (sub. 58, p. 3)

The WA Department of Training also saw a need specifically for more Indigenous trainers:

> Overall, the increasing lack of foundation skills in students suggests that the VET sector will need to … encourage, recruit and support more Indigenous trainers. (sub. 26, p. 3)

As discussed in chapter 6, Indigenous workers are under-represented in the publicly-funded VET sector workforce relative to Indigenous students. Only 1.3 per cent of the TAFE practitioner workforce and 2.1 per cent of the non-practitioner workforce in 2008 were Indigenous, in contrast with 4.4 per cent of students across the publicly-funded VET sector (Nechvoglod et al. 2008).

In recognition of the needs of Indigenous learners, many employers are currently seeking to employ more Indigenous staff. Some are introducing specific Indigenous employment strategies (box 8.4). A strategic approach will be important if the VET sector is to succeed:

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)

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, the Indigenous student population was around 900, out of 30 000, or around 3 per cent of the student population. Indigenous employees comprised around 1 per cent of all employees (18 Indigenous employees out of around 1 700 staff, including six lecturers and 12 other staff).

The Polytechnic had in the past participated in the National Indigenous Cadetship Program (NICP). However, the only NICP participant did not stay in employment for more than 18 months. The suggested reason for the failure of this program was that, while there was a push for the program, the recruitment process was lacking.

The Polytechnic has developed an Indigenous Employment Strategy (IES). The framework for this strategy has four key areas:

- *participation*: implement the IES; ensure staff embrace it; develop a marketing strategy showing the Polytechnic is an Indigenous employer of choice; establish an Indigenous Human Resources Officer; include Indigenous employment outcomes in the annual report; establish a target for proportion of Indigenous staff
- *recruitment*: ensure recruitment across a range of roles; continue with the NICP; liaise closely with Job Network providers; ensure an Indigenous person is on selection panels for Indigenous candidates; incorporate Indigenous elements into HR policies
- *retention*: establish mentoring processes; review mentoring undertaken; develop a skills consolidation program; 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; all managers undergo cultural sensitivity training.

As part of this strategy, the Polytechnic has hired an Indigenous Employment Coordinator, to help attract and retain Indigenous employees. This Coordinator commenced in November 2010, and has been employed on a twelve month contract. A review of the outcomes achieved by the Coordinator will be undertaken after twelve months.

Four Indigenous staff members are profiled on the Polytechnic's website.

Source: Polytechnic West (2010); Swan TAFE (2009a, 2009b).

Some providers also need to address a gap between their policies and actual 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)

DRAFT RECOMMENDATION 8.5

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 and charging an Indigenous HR manager with attracting, coordinating and retaining Indigenous employees across their organisation. 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.

Capability in delivering higher level qualifications

A number of study participants have suggested that delivery of such qualifications requires higher-level teaching skills (box 8.5).

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 level for module completers (chapter 5). For example, 70 per cent of the Diploma and above cohort agreed with the statement 'my instructors understood my learning needs', in comparison with 77 per cent of 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 around 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.

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 quit, against 12 per cent for students who enrolled in a Certificate III. One quarter of those who quit 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.

Box 8.5 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, sub. 38, p. 2)

Many factors potentially contribute to the gap in outcomes and opinions by qualification level for module completers. However, the detailed data suggest that trainers and assessors are a key contributor. 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, data that would support rigorous assessment of the link between teacher characteristics, and student satisfaction and outcomes at different qualification levels have not been located. It is possible that module completers reporting low rates of satisfaction were taught by practitioners with lower-level teaching qualifications. Further research into the factors that drive quality student outcomes at different qualification levels is needed.

INFORMATION REQUEST

The Commission seeks input in the form of quantitative evidence on the relationship between teacher qualifications and teaching quality by level of qualification.

Capability in the use of ICT in delivery

As discussed in chapter 6, technological change will have significant implications for the VET sector. 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)

As discussed in chapter 6, the use of ICT in the delivery of education and training is significant, and has been growing. 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 8.6). This gaps should be targeted via ongoing professional development.

Box 8.6 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, 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, sub. 37, p. 33)

(Continued next page)

Box 8.6 (continued)

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 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, 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 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). It has proved difficult, so far, to get a measure of the proportion of delivery that reflects this type of activity.

John Mitchell 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, the ability of clients to influence the nature and mode of delivery is probably greater where fee-for-service is involved.

While 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 8.7). Nor is it clear that a gap is likely to develop in the future. As the discussion in chapters 2 and 4 indicates, commercial pressures have been increasing steadily for many years. This might have led to the development of staff recruitment and development processes, that leave many in the workforce reasonably well-placed to respond to increased commercial pressures, which should meet the overall needs of the sector.

Box 8.7 Is the sector well-placed to respond to commercial pressures?

Delivery in a more contestable environment requires additional skills of the VET workforce …

> [Requires] a workforce that is:
>
> — Business savvy
>
> — Professional
>
> — Consultant/advisor-like (The Gordon, sub. 9, p. 10)

… while there is evidence that these skills might be relatively common in the workforce …

> Surprisingly, research by JMA Analytics has revealed that many practitioners have a medium-high level of commercial skills (e.g. negotiate with a client, price the product range, manage the contract), so stronger commercial pressures will be handled with some assurance. (John Mitchell and Associates, sub. 37, p. 12)
>
> 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)

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, sub. 22, p. 10)

Input from other participants indicates that RPL and RCC have characteristics that place higher demands on assessors (box 8.8).

Box 8.8 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, 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)

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 some VET practitioners (chapter 3) suggest that the workforce might not have adequate capability for effective RPL and RCC. Professional development in this area might be warranted, as discussed in section 8.4.

Other capability gaps

Capability in employment-based delivery

Between 2000 and 2009, employment-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).

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)

However, it is unclear whether or not the workforce currently lacks capability in this area.

INFORMATION REQUEST

The Commission would welcome information on the additional knowledge and skills required by VET practitioners delivering within workplaces, and evidence on whether or not the workforce has adequate capability in this area.

Management capability

Simons et al. (2009) noted that most VET managers entered their roles from within the sector. As management requires knowledge and skills not necessarily acquired in other job roles, this raises the question of whether current managers have the capability that they need to perform effectively. Evidence from the DEEWR survey (DEEWR 2010h) suggests that not all do. 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).

Evidence from the *People Matters Survey*, an annual survey of Victorian public sector organisations including TAFEs, is consistent with this finding (table 8.1). For example, only 70 per cent of TAFE staff agree that the public sector value of leadership applies in their workplace. TAFE significantly underperforms government schools on most workplace characteristics.

Table 8.1 **Staff views on whether selected employment principles or public service values apply in their workplace, TAFEs and government schools, 2009, per cent[a]**

	TAFE	*Government schools*		*TAFE*	*Government schools*
Employment principles			**Public sector values**		
Merit	79	95	Responsiveness	90	99
Fair and reasonable treatment	81	95	Integrity	86	95
Equal employment opportunity	95	98	Impartiality	87	95
Human rights	87	93	Accountability	76	93
Avenues of redress	74	91	Respect	79	95
Workplace well-being	84	92	Leadership	70	92
Commitment and retention	86	95	Human rights	92	96

a The figures represent the percentage of staff who agree that the selected employment principle or public sector value applies in their workplace.

Source: State Services Authority (2010), p. 8.

Service Skills Australia 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. (sub. 13, p. 95)

DRAFT FINDING 8.3

Considering the educational capabilities of the VET workforce:

- *There is little evidence of the VET workforce currently having capability gaps in delivering training and assessment to students who may experience disadvantage. However, this is an area of considerable exposure for the VET sector in the future, with an ageing workforce and an anticipated increase in VET delivery to disadvantaged students.*
- *There is tentative evidence of capability gaps relating to delivery of higher-level qualifications.*
- *There is evidence of a significant capability gap in ICT 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 RPL and RCC.*
- *There is evidence of capability gaps among VET managers and leaders.*

8.3 Vocational competency

Issues relating to vocational competency, or industry currency as it is more commonly called, are critical to the effective delivery of VET.

Element 1.4 of the AQTF requires that RTOs ensure that trainers can demonstrate, and continue to develop, their industry currency. Requirements of this type have been part of the AQTF for many years. However, as noted earlier, recent changes to the AQTF, and the NQC Determination of 18 December 2009, seek to increase their clarity.

Industry advice on the vocational competence required by assessors is provided in Training Packages. In a recent clarification of the content of this advice, NQC advised Training Package developers that:

> Advice should include:
>
> - relevant industry advice related to the vocational competencies of assessors, including relevant industry qualifications and/or competencies and relevant industry experience for assessing against the Training Package or for specific qualifications within the package and
> - advice outlining what industry sees as acceptable and relevant forms of evidence to demonstrate the maintenance of currency of vocational competency. (NQC, sub. 52, p. 12)

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, 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 QLD 2010, p. 6)

Development of industry currency occurs in many ways

Maintenance of industry currency is often equated with industry release, 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 people view employment as the most effective way of maintaining currency.

> [Sixteen study] participants commented on this question. All 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 (an estimated 17 per cent of VET practitioners have a second job outside the education industry), together with an estimated 44 per cent of practitioners that have been in the VET sector for less than five years, 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 8.2), as is the finding from a recent DEEWR survey (DEEWR 2010h) 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 8.2 **Activities undertaken by VET practitioners in the past 12 months to keep industry knowledge up to date, by employment type**

	Casual	*Fixed-term*	*Ongoing*	*Self employed*	*Sessional*
	no.	no.	no.	no.	no.
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 (2010h).

However, some study participants raised concerns about industry currency in the workforce (box 8.9). Recent analysis of 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 8.9 **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)
>
> [Study participants] 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 Qld 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 around industry currency; having to use own time and money to fund currency activities; and a lack of industry contacts (DET Qld 2010).

DET Qld (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 ongoing professional development:

> The consensus from EE-Oz's consultations was that Continuing Professional Development (CPD) 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)

Maintenance of industry currency is considered further in the context of ongoing professional development in section 8.4.

DRAFT FINDING 8.4

Industry currency is not well-researched or understood. While 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. Continuing professional development systems need to identify and address these gaps.

8.4 Ongoing professional development

Overall, the analysis of both industry currency and specific capability gaps points to a need for ongoing professional development within the VET workforce.

Professional development covers a wide range of activities including:

- formal (accredited) training
- 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.

Relevant regulatory settings

Element 1.4(d) of AQTF 2010 sets out a requirement that RTOs ensure ongoing professional development in their trainer and assessor workforce:

> … training and assessment is delivered by trainers and assessors who … continue to develop their [VET] knowledge and skills as well as their industry currency and trainer/assessor competence. (Australian Government 2010a, p. 6)

Requirements in this vein have been part of the AQTF since the first version was introduced in 2001 (ANTA 2001).

Across much of the 2000s, *Reframing the Future* 'was the major VET workforce development effort initiative of the Australian and State and Territory Governments' (Reframing the Future 2008). The initiative, which cost around $4.4 million per annum, provided dollar for dollar matched funding for around 200 projects a year (TVET 2006). In 2008, funding to 'facilitate development and training of the public VET workforce' was transferred to the each of the states and territories with signing of the National Agreement on Skills and Workforce Development (COAG 2008b, p. 7).

In addition to funding provided through the National Agreement, the Australian Government also plays a role, through funding provided for Innovation and Business Skills Australia 'to advise government of industry skill and workforce development needs and investment priorities for Australia's VET system' (IBSA 2010a, p. 1).

Provision for professional development is also made within the sector's industrial instruments. Hours per annum and funding provisions for VET practitioners are reproduced in table 8.3. Provisions vary significantly between jurisdictions, and are almost non-existent for casual and sessional staff. No provision is made for professional development in the relevant modern award *Educational Services (Post-Secondary Education) Award 2010*.

Taken together, the AQTF settings and provisions in industrial instruments suggest that ongoing professional development should be a significant feature of the sector. The variability in industrial instruments, the lack of inclusion in the modern award, and evidence on practice, however, is not consistent with this conclusion. While many in the workforce do engage in some professional development, a significant number perceive that they need more, but lack opportunities — as set out below.

Table 8.3 **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%
Causal / 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 professional development 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. – zero

Source: Karapas, G., DFEEST, pers. comm., 15 September 2010.

Workforce views on professional development

Research by Simons et al. (2009, p. 34), based on data from a survey of almost 1100 staff from 43 RTOs in 2006, concluded that:

> Overall engagement with professional development was significant, although fewer staff had undertaken formal professional development. Sixty-four per cent reported having undertaken formal, 74 per cent structured and 73 per cent informal professional development [in the three years preceding the survey].

More recent data (DEEWR 2010h) also indicate high levels of participation in professional development. 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

professional development in the 12 months to September 2010. Unfortunately, this does not indicate the intensity of this participation in professional development.

Simons et al. (2009, p. 5) also concluded that job role was a factor in VET workers' receipt of professional development:

> Staff in management positions are best served by existing arrangements. Teachers and general staff are less well accommodated by the available mechanisms.

Service Skills Australia observed that employment arrangements influence engagement with professional development:

> 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 (Vandenheuvel and Wooden, 1999). (Service Skills Australia, sub. 13, p. 15)

Although the Simons et al. (2009) and DEEWR (2010h) data suggest that many trainers and assessors engage in professional development, other work has found that opportunities to participate are perceived to be inadequate:

> … 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)

The AEU shares the view that current opportunities are inadequate for TAFE staff:

> 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. (sub. 34, p. 44)

Despite this lack of opportunities, interest in undertaking professional development is strong, at least among VET practitioners. 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)

Are ongoing professional development opportunities adequate?

Consistent with the views of employees, there are also indications that their employers view current arrangements as inadequate.

TAFE SA Regional has recently analysed the capability of its trainer and assessor workforce using a diagnostic tool developed by Mitchell and Ward (2010). Ninety-two per cent of the Institute's 456 permanent and sessional trainers and assessors participated, and provided a self-assessment of their capability against 59 training and assessment skills. The results led the Institute to identify six or seven skills gaps that needed immediate attention, including learning styles, learning theory, AQTF documentation and flexible delivery skills (Mitchell 2010a). Importantly, faculty managers reported that:

- the results gelled with their perceptions about the capability of their teaching workforces
- the professional development program planned in response to the capability analysis will deliver them the skilled workforce that they need.

Assuming that these results are indicative of the situation in at least some other RTOs, professional development opportunities within the sector are not adequate.

Key impediments to professional development

As noted earlier, a lack of planning is perceived to underlie many barriers to ongoing development of industry currency. It would appear to be an issue more generally. Simons et al. (2009) found that over 40 per cent of teachers and general staff did not have a professional development plan in place with their manager.

Work by Mitchell and Ward (2010, p. 8) points to a more fundamental problem — a lack of knowledge about *what* should be planned:

> … 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 evidence also points to possible weaknesses in the human resource management processes needed to support professional development. Based on evidence collected in 2006, Smith and Hawke (2008, p. 19) observed that training and development were not a day-to-day or strategic priority for human resource managers in TAFE Institutes, and concluded that 'this issue is 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. Nonetheless, both TAFEs and private providers reported low to medium expenditure (0–4 per cent of payroll) on training and development.

Increased work complexity might limit opportunities for professional development. 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)

Funding was also identified as an issue by some study participants:

> 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)
>
> Government funding is needed to support the continuous professional development of VET educators. (Australian Nursing Federation, sub. 12, p. 11)
>
> In terms of teacher training and professional development, employers in the sector have blamed underfunding for the decline in teacher education and support. (AEU, sub. 34, p. 27)

In terms of resourcing, both employees and employers have responsibility for professional development. Employees benefit from ongoing development in a variety of ways, including: improved employability options; higher salaries, where professional development is linked to pay (for example, in the case of attaining a Diploma level teaching qualification in some jurisdictions); and intrinsic returns from becoming more accomplished in their roles. Employers potentially benefit, for example, through: an increase in business motivated by a reputation for quality; the transfer of skills and knowledge between increasingly capable employees; and the identification and adoption of more innovative delivery strategies.

Given the centrality of the workforce to the quality of VET provision, RTOs operating in a competitive environment have incentives to meet the conditions described above. As a manager at TAFE SA Regional observed, in the context of the exercise to analyse the TAFE's practitioner workforce capability, '[b]ecause contestable funding is going to be brought in we're at a stage where the quality of our teaching and learning is going to be really, really important' (cited in Mitchell 2010a, p. 3).

Might a national workforce development plan help?

Some study participants called for a national workforce development plan. The Australian Industry Group, for example, argued that:

> A national vocational education and training professional workforce strategy must be developed as a priority to provide national direction and to explicitly set out the

> expectations of stakeholders across both technical currency and educational expertise. (sub. 14, p. 8)

In citing a 2009 COAG Working Group discussion paper, Service Skills Australia pointed to 'a range of indicators that national action on workforce development is appropriate for the VET workforce' and noted that 'consultations based on the discussion paper had revealed "unanimous support for the need to focus on the VET workforce"' (Service Skills Australia, sub. 13, p. 13).

However, not all participants agreed that a national plan is warranted:

> … responsibility for any kind of professional development, whether maintaining industry currency or improving trainer/assessor competence, is a responsibility of both employers and employees. Well considered options for workforce development are likely to be more fruitful than the establishment of a plan, which would need to take account of all the diversity and complexity in the VET workforce. (IBSA sub. 8, p. 10)

The Commission has reservations about the value of a national plan. RTOs, and their employees, will have quite different needs. Mitchell and Ward (2010), for example, identified five types of VET practitioner — foundation (novice and established), specialist (commercial, and learning and assessment) and advanced. The combination of these practitioner types needed by an RTO will depend on its strategic direction. As Mitchell and Ward (2010, p. 33) noted:

> 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.

Similarly, the needs and preferences of RTO employees for professional development 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.

From the above evidence and analysis, the Commission concludes that opportunities for ongoing professional development within the sector are not currently adequate. Furthermore, some of the fundamental supports for ongoing development are missing, including well understood options for addressing identified competency gaps and for building capability.

Responsibility for many of these conditions sits at the RTO level. However, industrial parties have responsibilities around the second last point.

DRAFT RECOMMENDATION 8.6

State and Territory governments should assess the adequacy of funding provisions for ongoing professional development of their VET workforce. Non-government RTOs should identify capability needs within their workforces and target funding accordingly. Professional development should be a joint responsibility of RTO employers/owners and employees. Industry and Business Skills Australia should consult with the sector and develop options for ongoing professional development that address competency gaps and/or contribute to further capability development.

8.5 Might registration help?

Some parts of industry have occupational registration. An estimated 18 per cent of employed Australians worked in registered occupations in 2006 (PC 2009b, p. 48).

The why and what of registration schemes

Registration can be a mandatory or voluntary requirement of employment. Mandatory schemes are typically 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. They exist when:

> … licensing, approval, admission, certification (including by way of practising certificates), or any other form of authorisation, of a person [is] required by or under legislation for carrying on an occupation. (*Mutual Recognition Act 1992*, s.4(1))

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 an occupation
- monitoring the standards of education and training provision to members of an occupation
- handling complaints and disciplinary actions against members of an occupation
- promoting an occupation to the broader community.

Traditional registration tends to be used where the effects on the public or environment of poor quality service delivery are significant. 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. 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 and engineers (excluding engineers in Queensland), for example, operate under schemes of this type.

A scheme for VET professionals?

Study participants' opinions on the desirability of a registration scheme for VET practitioners were diverse (box 8.10).

Box 8.10 **Views on the desirability of registration are mixed**

There is no consistent view on the benefits of registration for VET practitioners and other professionals. (Joint TAFE Associations, sub. 48, p. 6)

… 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)

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)

Current regulatory frameworks cover many of the possible functions of a traditional registration scheme:

- Qualification requirements for trainers and assessors are set out in AQTF element 1.4 (and mean that a form of de facto regulation applies).
- Element 1.4 of the AQTF also imposes a requirement for continuous competency development for trainers and assessors working in RTOs.
- Education and training courses for VET practitioners are developed by Innovation and Business Skills Australia and accredited by the NQC.
- State and territory regulators are charged with monitoring compliance with standards for education and training provision as established under the AQTF and additional local requirements.

- The AQTF requires training providers to have policies and procedures in place to manage customer complaints. State and territory registering bodies have additional measures in place to investigate and respond to complaints where customers are not satisfied with the response from an RTO.

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 initial teacher training), has created a barrier to entry to the profession (appendix F).

In addition, providers often implement additional quality control functions. A search of TAFE teaching positions advertised on seek.com.au revealed a range of requirements above the AQTF minimum including: higher-level teaching qualifications; capability in IT applications; criminal record checks; and demonstrated capacity to identify and address students' learning problems.

'Promotion of an occupation to the broader community' is the only potential function of a traditional registration scheme not covered by existing regulatory settings.

Study participants' views did not point to a strong case to pursue registration in order to improve professional standards (box 8.11). Further, as discussed in chapter 7, it is not clear that promotion of the VET workforce is required. Nor is the Commission convinced that registration would be the most effective promotion vehicle.

Overall, given current regulatory settings within the sector, the Commission does not believe that a mandatory registration scheme is warranted. Some study participants supported a voluntary scheme:

> A self-regulating professional association designed to promote 'professional practice' may be a better focus [than registration] for raising the professional status of those who work in the VET sector. (Joint TAFE Associations, sub. 48, p. 6)

Box 8.11 **Registration and professional standing**

It appears there is little connection between VET professional registration and peoples' perception of teaching as being a worthwhile career. (Joint TAFE Associations, sub. 48, p. 6)

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)

Although registration could potentially have the benefit of improving professional standing, it will not improve professional practice unless changes are made to qualifications as well. An increase in standing is not of much value *per se* without an increase in the standard of professional practice. (The Deaf Society, sub. 7, p. 3)

Participants in recent NQC-commissioned research also had mixed views about a voluntary 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 scheme. Practitioner bodies already exist, for example 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)

This is consistent with the advice to NQC that further consultation was required on potential governance, resourcing and maintenance of a voluntary scheme. The Commission believes that any such scheme would confer benefits almost solely on its members, and should therefore be member funded.

DRAFT RECOMMENDATION 8.7

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

9 The Commission's proposals

In this study, the Commission has made a number of recommendations that, considered as a whole, amount to a preferred package of reforms targeted at enhancing the efficiency and effectiveness of the Vocational Education and Training (VET) workforce. In this chapter, this package is reviewed, from two main perspectives. First, the questions of what the reforms seek to deliver and their benefits are examined (section 9.1). Second, possible articulation and sequencing for some of the measures proposed are presented and discussed (section 9.2).

9.1 What can be expected from the proposals?

The recommendations put forward by the Commission are intended to maximise the contribution the workforce makes to the quality of VET, over the medium to long term. The Commission considers that the VET sector should have a number of objectives:

- inspire, stimulate and enrich learners from all segments of the community
- provide the skills needed by the economy
- contribute 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 future challenges. Future challenges might arise as a result of 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 these analyses, the Commission was able to verify 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 would make the VET workforce, individually and as a group, more flexible, more adaptable and more capable. It will gain 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 qualifications 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. This choice is best left to individuals, and any private training transaction that takes place can 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 reaping the public benefits associated with a well trained and educated population.

A more efficient and effective VET workforce would be of benefit both to individuals and the community in general.

This study has identified some of the 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 output 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.

Individuals will acquire vocational skills that are closer to the modern practices and needs of industry. Some of the Commission's proposed reforms will mean that some students acquire those skills, who might not have acquired them otherwise.

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.

The additional economic benefits of a better VET workforce, outlined above, are likely to be significant. However, the Commission considers that another key benefit of a more efficient and effective workforce lies in its ability 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 — have long been an untapped resource in the economy and society. Their potential to participate fully in both has remained unrealised because they have not had the skills necessary to do so. The VET workforce will, in the next ten years, be required to give those learners the foundation and vocational skills they need. The Commission's recommendations are designed to facilitate and hasten this process.

On the other side of the ledger, it is anticipated that the reforms recommended in this study will not involve significant additional costs. The Commission has not suggested more funding of the VET sector, but has recommended that existing resources be used more effectively to lift the productivity of the VET workforce.

Nor has the Commission argued for additional workers to be diverted from other productive pursuits into VET. Nonetheless, there will be costs associated with some of the Commission's proposals, such as the cost to providers and enterprises of helping their trainers and assessors gain a Certificate IV in Training and Assessment or a Skill Set relevant to their role.

All in all, however, the costs of implementing the recommendations are likely to be small, relative to the sum of tangible and intangible benefits that will be generated. The Commission believes, therefore, that its package of proposals satisfies a net community benefit test.

9.2 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, to produce maximum benefits. Some measures should be implemented as a matter of priority. Those that are a precursor to longer-term measures are an example, as are those with the potential for clear and immediate payoffs. Conversely, some actions with a longer-term — and possibly less certain — payoff should only be undertaken following extensive consultation and careful design.

In the two sections below, some of the Commission's key recommendations are considered from the point of view of the preferred timeframe for their implementation.

Short-term measures

Some of the Commission's recommendations are consistent with a short-term implementation window. These recommendations are aimed at unblocking 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.

First and foremost, issues affecting the quality delivery of the Certificate IV in Training and Assessment (TAE) should be addressed without delay. When it is well delivered, the Certificate represents a satisfactory minimum standard for trainers and assessors with more than an occasional involvement in VET. However, there are indications that regulatory non-compliance within some registered training organisations (RTOs) means that the qualification does not equip all their students with the level of skills required to deliver VET effectively.

Consequently, the Commission has recommended that the Certificate should maintain its status as a high-risk qualification and be subject to more frequent and intensive audits. Moreover, it has recommended that state and territory regulators publish information on audit outcomes and performance indicators for RTOs, to further incentivise providers to focus on quality training and assessment.

Industrial relations is another area where the Commission expects reform to produce significant benefits within a relatively short timeframe. The public segment of the VET sector has long been restricted in its ability to adapt, adjust and compete within

the new VET paradigm of competition, contestability and user choice. Restrictions arise due to industrial relations arrangements that apply homogenised levels of pay in TAFE and caps on some forms of employment. Rigid wages instruments, work arrangements and job design are not adapted to an environment in which training is increasingly valued for its industry currency and workplace readiness, and which, therefore, requires TAFE to compete directly with private providers and industry for skilled workers.

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
- ensure that incentives are in place for the VET workforce to enhance its vocational and educational skills, broadly defined.

The first objective might be pursued, in part, through a move towards greater managerial independence for public sector VET providers. The second objective could form part of a push for greater professional development in TAFEs, already mentioned.

Short-term measures should include initiatives to improve the availability 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 Ministerial Council for Tertiary Education and Employment charging the National Centre for Vocational Education Research with developing a comprehensive instrument with which to identify, measure and describe the VET workforce.

Medium-term measures

Other Commission recommendations lend themselves more to a progressive implementation agenda. 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 practice, and through professional development.

As mentioned, the Commission has concluded that the Certificate IV in TAE is an appropriate qualification for the development of essential foundation competencies for VET practitioners. This group of trainers and assessors works in institutions that specialise in education, and VET is their primary activity. With tightening of auditing and monitoring, and extended supervised training delivery, the Commission considers that this qualification should be held by all VET practitioners.

Consequently, the Commission recommends that all new entrants into the VET trainer and assessor group, who do not have the Certificate IV in TAE, be required to obtain that qualification within two years of starting employment.

A similar arrangement would apply to new enterprise trainers and assessors, with the difference that they would be expected to complete only that part of the Certificate IV in TAE (the enterprise trainer Skill Set) relevant to their role.

An implementation issue arises in relation to existing trainers and assessors. An estimated majority of trainers who work in private RTOs — and about half of those in TAFEs — do not currently hold the Certificate IV in TAE (or the relevant Skill Set, in the case of enterprise trainers and assessors). To require those thousands of trainers and assessors to acquire it at short notice would be disruptive and costly for the delivery of VET. It would be likely to turn many of these workers away from the sector, something VET cannot afford as its workforce ages and, in some cases, retires. Moreover, if a sudden increase in demand were to eventuate, it could place further pressure on the overall quality of the Certificate IV in TAE — a matter of considerable concern already.

A less disruptive approach would be for existing trainers and assessors without the relevant qualification to obtain it within a period longer than two years. The Commission has requested information on how long that period should be.

The Certificate IV in TAE does not, in its basic configuration, remedy some of the capability gaps that the Commission has identified in a number of areas: delivery of higher-level qualifications; assessment of recognition of prior learning and recognition of current competency; information and communication technologies skills; and management and leadership. Building the educational capabilities of trainers and assessors in these areas will require sustained professional development, if the VET sector is to meet the range of challenges it faces.

Professional development is also required to address the industry currency gaps of VET trainers and assessors. Despite regulatory requirements at the RTO level, industry currency does not appear to figure prominently in their workforce planning and professional development strategies.

The Commission considers that incentives for VET practitioners to acquire higher, broader or deeper skills than those contained by default in the Certificate IV would be enhanced if workforce development formed part of the performance management system. In such a system, trainers and assessors would be rewarded for acquiring competencies and qualifications that enable them to tailor their training and assessment to their students' profile, or for adjusting their delivery methods to the needs of workplaces.

A List of submissions, visits, consultations and roundtables

Table A.1 **List of submissions**

Individual or organisation[a]	*Submission number*
Children and Families Research Centre	1#
Bedson, Elizabeth	2
O'Donnell, Carol	3#
Queensland Tourism Industry Council	4
Polytechnic West	5
Bauer, Rod	6
Deaf Society of NSW, The	7
Innovation and Business Skills Australia	8
Gordon, The	9
Dalitz, Dr Robert	10
Victoria University	11
Australian Nursing Federation	12
Service Skills Australia	13#
Australian Industry Group	14
Ryan, Dr Peter	15
Saunders, Lynn	16
Blake, Allison	17
TAFE Development Centre	18
ForestWorks	19
EE-OZ Training Standards	20
Ellis, Vanessa	21#
Manufacturing Skills Australia	22
Minerals Council of Australia	23
Chamber of Commerce and Industry Queensland	24
Electrical and Communications Association	25
Department of Training and Workforce Development (WA)	26#
Mathematical Association of Victoria	27
Australian Institute of Welfare and Community Workers Inc	28
Skills Tasmania	29
Growcom	30
Australian Council of Trade Unions	31
Monash University	32
Women in Adult and Vocational Education	33#
Australian Education Union	34

(Continued next page)

Table A.1 (continued)

Individual or organisation[a]	*Submission number*
Australian Vocational Education and Training Research Association	35
H2O Pro Pty Ltd	36
John Mitchell and Associates & JMA Analytics	37
NSW Community Services & Health ITAB	38
Smith, Professor Erica	39
Charles Darwin University	40
Industry Skills Councils	41
Australian Chamber of Commerce and Industry	42
Department of Education and Training (NSW)	43
Jobs Australia	44
Department of Corrective Services (WA)	45
Construction and Property Services Industry Skills Council	46
New South Wales Teachers Federation	47
Joint TAFE Associations	48
Michael Minns Human Resources Pty Ltd	49
Australian Council for Private Education and Training	50
South Australian Training and Skills Commission	51#
National Quality Council	52
Community Colleges Australia	53
Department of Further Education, Employment, Science and Technology	54
Community Services and Health Industry Skills Council	55
TVET Australia	56
NSW Government	57
National VET Equity Advisory Council	58
Skills Australia	59

[a] An asterisk (*) indicates that the submission contains confidential material NOT available to the public. A hash (#) indicates that the submission includes attachments.

Table A.2 **List of visits and consultations**

Location/Interested parties

ACT
Australian Bureau of Statistics (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 Professor
National Centre for Vocational Education Research

Tasmania
Jenard
Tasmanian Polytechnic
Skills Institute
Skills Tasmania

(Continued next page)

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 Education Union
Australian Industry Group
Centre for Economics of Education and Training
Department of Education and Early Childhood Development
Innovation and Business Skills Australia
Kangan Institute
LH Martin Institute
National Quality Council
National VET Equity Advisory Council
RMIT University
Skills Victoria
TAFE Development Centre
TAFE Directors 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 roundtables**

Location

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 (NSW)
Kim Bannikoff Consulting
My Gateway
National Centre for Vocational Education Research (SA)
North Coast TAFE (NSW)
Skills Australia
Skills Queensland (Qld)
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 RTO Association
Innovation and Business Skills Australia
KAL Multimedia
Kangan Institute
LH Martin Institute
RMIT University
Skills Victoria
TAFE Development Centre
Technical and Vocational Education and Training
Victorian TAFE Association
Work-based Education Research Centre

B Detailed data on VET effort

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. Attachment A 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**

	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**

	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
NT	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
NT	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**

	2000	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2000–2009*
Students	%	%	%	%	%	%	%	%	%	%	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)

	2000	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2000–2009*
Hours of delivery	%	%	%	%	%	%	%	%	%	%	Growth in hours %
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**

	2002	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2002–2009*
	%	%	%	%	%	%	%	%	Growth in students %
Field of education (major course)[a]									
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**

	2002	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2002–2009*
	%	%	%	%	%	%	%	%	Growth in enrol's %
Field of education (course)[a]									
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*	*2002–2009*
	%	%	%	%	%	%	%	%	Growth in hours %
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 registered training organisations (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*	*2000–2009*
Students	%	%	%	%	%	%	%	%	%	%	Growth in 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**
Hours of delivery	%	%	%	%	%	%	%	%	%	%	Growth in hours %
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**

	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
NT	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
NT	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**

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.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**

	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**

	2000	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2000–2009*
Study mode	%	%	%	%	%	%	%	%	%	%	Growth in students by study mode %
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**

	Graduates					*Module completers*				
	2005	*2006*	*2007*	*2008*	*2009*	*2005*	*2006*	*2007*	*2008*	*2009*
	%	%	%	%	%	%	%	%	%	%
Main reason for undertaking training										
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**

	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]

	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*	*2002–2009*
	%	%	%	%	%	%	%	%	%	%	Growth in hours %
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 A 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		
	Accredited training		*Unaccredited 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]

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 2 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.

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.

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 profile. 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.

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.

Table C.1 **Different estimates of the size of the VET workforce**[a]

Year	*VET workforce*		*TAFE workforce*		*Source*[c]
	Trainers & assessors[b]	*All VET workers*	*Trainers & assessors*[b]	*All TAFE workers*	
1997	654 800	1 220 100	45 800	69 200	NCVER estimates based on SET[d]
2001	744 600	1 077 800	71 300	90 400	NCVER estimates based on SET[d]
2001	24 500	na	17 400	39 000	NCVER estimates based on Census[e]
2002	na	na	42 300	62 500	NCVER estimates based on administrative data[e]
2005	677 700	950 800	61 800	70 800	NCVER estimates based on SET[d]
2006	62 900	130 600	20 200	42 900	PC estimates based on Census[f]
2006	26 900	na	19 300	na	NCVER estimates based on Census[d]
2008	na	na	36 460	57 800	NCVER estimates based on administrative data[d]
2009	169 200	598 800	na	na	PC estimates based on SET[g]
2008–10	na	na	na	73 900	PC estimates based on TAFE administrative data[h]

[a] A lower bound value of the non-TAFE VET workforce was derived from Productivity Commission estimates of the total VET workforce based on Census for 2006 (ABS 2006c) and NCVER estimates of the TAFE workforce based on administrative data for 2008 (Nechvoglod et al. 2008). An upper bound value of the non-TAFE VET workforce was derived from Productivity Commission estimates of the total VET workforce based on SET for 2009 (unpublished ABS 2009c) and NCVER estimates of the TAFE workforce based on administrative data for 2008 (Nechvoglod et al. 2008). Within the non-TAFE sector, there were an estimated 152 000 staff employed by private RTOs in 2010 (ACPET estimates of full-time equivalent staff at a point in time, converted to estimated headcount over a year by the Productivity Commission). [b] In some data collections, 'trainers and assessors' are labelled as 'practitioners' or 'teachers', and 'other VET professionals' and 'general staff' are labelled as 'non-teaching staff'. [c] Estimates based on the Census or the Survey of Education and Training (SET) exclude multiple job-holders who do not classify VET as their main job. Estimates based on administrative data include multiple job-holders. [d] Published in Mlotkowski and Guthrie (2008). [e] Published in NCVER (2004a). [f] Based on unpublished ABS (2006d) data. [g] Based on unpublished ABS (2009c) data. Includes all workers who report that they provide VET and are employed by vocational education institutions, TAFEs, technical or business colleges, adult community education centres, professional associations, industry associations, organisations where the worker is employed to train employees of other businesses, and product manufacturers where the worker trains users of the product. [h] Data for the Northern Territory are for 2008, based on Nechvoglod et al. (2008). Data for Victoria and South Australia are for 2009. Data for all other jurisdictions are for 2010. na Not available.

Source: Mlotkowski and Guthrie (2008); Nechvoglod et al. (2008); NCVER (2004a); Productivity Commission estimates based on unpublished ABS (2006d) data, unpublished ABS (2009d) data, and unpublished TAFE administrative data.

Table C.2 **Count of the TAFE workforce, by jurisdiction[a]**

Number of workers

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*ACT*	*All*
All TAFE workers	23 200	23 200	8 200	5 400	8 000	3 200	1 100	1 600	73 900

a Data are for 2010, except for Victoria and South Australia (2009) and the Northern Territory (2008). Data for the Northern Territory are from Nechvoglod et al. (2008), and not strictly comparable to other jurisdictions. Data for each jurisdiction (except the Northern Territory) include all persons employed during the year. These numbers overestimate the number of workers employed at a particular point in time during a given year.

Source: Productivity Commission estimates based on unpublished TAFE administrative data 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	63.1	48.0
Other VET professionals	2.4	4.1
General staff	34.5	47.9
All VET workers	**100.0**	**100.0**

a Data for the TAFE sector are based on Nechvoglod et al. (2008). **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 Nechvoglod et al. (2008).

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 2005a). 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 **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	33.7	67.4
Part-time	9.8	32.6
Other[d]	56.5	..
Average hours	na	35.2 hrs
Other VET professionals		
Full-time	53.0	76.5
Part-time	15.9	23.5
Other[d]	31.1	..
Average hours	na	39.3 hrs
General staff		
Full-time	76.1	70.8
Part-time	7.5	29.2
Other[d]	16.3	..
Average hours	na	35.3 hrs
All VET workers		
Full-time	41.4	68.4
Part-time	11.8	31.6
Other[d]	46.8	..
Average hours	na	35.4 hrs

a 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. Omits workers who do not report labour force status **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. **d** TAFE dataset defines an 'other' category which contains casual/sessional and contract/temporary staff. na Data not available. .. Not applicable.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data and Nechvoglod et al. (2008).

Table C.7 **TAFE workforce, by form of employment and jurisdiction, 2008**

Per cent of workers

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*ACT*	*All*
Trainers & assessors									
Permanent	31.3	35.9	48.0	42.2	48.6	82.4	38.7	37.1	38.2
Non-permanent	68.7	64.1	52.0	57.8	51.4	17.6	61.3	62.9	61.8
Other VET professionals									
Permanent	79.4	0.0	84.1	94.9	100.0	95.1	20.0	86.7	83.7
Non-permanent	20.6	0.0	15.9	5.1	0.0	4.9	80.0	13.3	16.3
General staff									
Permanent	61.6	53.8	64.0	77.5	64.5	91.2	59.0	65.4	62.2
Non-permanent	38.4	46.2	36.0	22.5	35.5	8.8	41.0	34.6	37.9
All TAFE workers									
Permanent	42.1	41.6	55.7	56.3	55.6	87.3	50.7	49.2	47.6
Non-permanent	57.9	58.4	44.3	43.7	44.4	12.7	49.3	50.8	52.4

Source: Nechvoglod et al. (2008).

Table C.8 **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 (2010g) data.

Table C.9 **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.10 **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. Western Australia and South 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.11 **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.

Table C.12 **VET trainers and assessors, by type of education qualification, 2006**[a]

Per cent of workers

	TAFE[b]	*Non-TAFE*[b]
Education or curriculum studies	4.9	3.0
Teacher education – VET	5.2	0.7
Teacher education – Higher education	0.4	0.1
Teacher education – Secondary	2.0	1.3
Teacher education – Primary / Early childhood	2.1	1.9
Teacher education – Special education	0.2	0.2
Teacher education – Librarianship	–	–
Teacher education – not further defined	31.2	13.3
Teaching English as a Second Language	0.9	0.2
Nursing education teacher training	0.1	0.3
Total teaching or education field	47.0	21.1
Other (non-teaching or education) field	50.7	62.1
No post-school qualification	2.3	16.8

a Based on highest qualification. **b** Data exclude multiple job-holders who do not classify VET as their main job. – nil or <0.1 per cent.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data.

Table C.13 **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.14 **TAFE workforce, by age and jurisdiction[a]**

Per cent of workers (unless otherwise stated)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*ACT*	*All*
<30 years	4.6	11.5	8.0	9.7	9.7	8.4	15.3	13.2	8.6
30–39 years	15.4	20.1	16.9	18.8	18.2	18.2	23.8	20.3	18.0
40–49 years	28.0	28.7	27.5	27.6	26.9	27.6	28	26.7	28.0
50–59 years	34.7	29.2	33.5	30.5	29.7	32.6	24.2	26.4	31.6
60+ years	17.2	10.5	14.1	13.5	15.6	13.2	8.8	13.4	13.8
Average age (years)	49.6	46.1	47.4	46.9	47.2	47.5	43.7	45.6	47.5

a Data are for 2010, except for Victoria and South Australia (2009) and the Northern Territory (2008). Data for each jurisdiction (except NT) include all persons employed during the year.

Source: Productivity Commission estimates based on unpublished TAFE administrative data and Nechvoglod et al. (2008).

Table C.15 **VET workforce by sex**

Per cent of female workers

	TAFE[a]	*Non-TAFE*[b]
Trainers and assessors	51.4	58.5
Other VET professionals	55.3	51.2
General staff	68.1	56.2
All VET workers	57.3	57.8

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.16 **TAFE workforce, by sex and jurisdiction[a]**

Per cent of female workers

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*ACT*	*All*
All TAFE workers	58.0	55.8	60.3	59.4	59.4	57.5	60.6	61.0	57.9

a Data are for 2010, except for Victoria and South Australia (2009) and the Northern Territory (2008). Data for each jurisdiction (except NT) include all persons employed during the year.

Source: Productivity Commission estimates based on unpublished TAFE administrative data and Nechvoglod et al. (2008).

Table C.17 **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.18 **TAFE workforce, by Indigenous status and jurisdiction, 2008**

Per cent of workers of Indigenous status

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*ACT*
Trainers and assessors	1.1	na	1.1	0.8	1.4	na	10.6	1.6
Other VET professionals and general staff	1.2	na	2.1	1.8	3.5	na	7.7	1.3
All TAFE workers	1.1	na	1.6	1.2	2.3	na	8.8	1.5

na Data not available.

Source: Nechvoglod et al. (2008).

Table C.19 **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.20 **TAFE workforce, by disability status and jurisdiction, 2008**

Per cent of workers who self-report as having disability

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*ACT*
Trainers and assessors	2.0	na	5.7	1.1	1.8	na	2.8	2.3
Other VET professionals and general staff	2.7	na	6.9	2.1	2.9	na	1.7	0.8
All TAFE workers	2.2	na	6.3	1.5	2.3	na	2.1	1.7

na Data not available.

Source: Nechvoglod et al. (2008).

Table C.21 **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 do not state their year of arrival.

Source: Productivity Commission estimates based on unpublished ABS (2006d) data.

Table C.22 **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 do not state their English proficiency. na Data not available.

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.23 **Reasons for entering the VET workforce, by current position, 2010**

Reasons for entering	*Current position*			
	Trainers & assessors	*Other VET professionals*	*General staff*	*Total*
	No.	No.	No.	No.
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 (2010g).

Table C.24 **Entry into VET, by age and position, 2006**

Age at entry	*Entry position*			
	Trainers & assessors	*Other VET professionals*	*General staff*	*Total*
	No.	No.	No.	No.
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.25 **Entry into VET, by employment type and position, 2006**

Employment type	*Entry position*			
	Trainers & assessors	*Other VET professionals*	*General staff*	*Total*
	No.	No.	No.	No.
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.26 **Entry into VET, by hours arrangement and position, 2006**

Hours arrangement	*Entry position*			
	Trainers & assessors	*Other VET professionals*	*General staff*	*Total*
	No.	No.	No.	No.
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.27 **Employment prior to VET entry, by position, 2006**

Prior employment	*Entry position*			
	Trainers & assessors	*Other VET professionals*	*General staff*	*Total*
	No.	No.	No.	No.
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.28 **Industry of employment prior to VET entry, by position, 2006**

Industry	*Entry position*			
	Trainers & assessors	*Other VET professionals*	*General staff*	*Total*
	No.	No.	No.	No.
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.29 **Job changes within VET, by entry position, 2006**

	Entry position			
Number of moves	*Trainers & assessors*	*Other VET professionals*	*General staff*	*Total*
	No.	No.	No.	No.
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.30 **Role changes in VET between entry and current position, 2006**

	Entry position			
Current position	*Trainers & assessors*	*Other VET professionals*	*General staff*	*Total*
	No.	No.	No.	No.
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.31 **Changes in mode of employment, by current position, 2010**

Current employment status	*Previous employment status*				
	Casual	*Fixed-term*[a]	*Ongoing/ Permanent*	*Self-employed contractor*	*Total*
	No.	No.	No.	No.	No.
Trainers & 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 (2010g).

Table C.32 **Changes in hours arrangements, by entry position, 2006**

Current arrangements (by entry position)	*Entry arrangements*					
	Full-time	*Part-time*	*Casual*	*No response*	*Invalid response*	*Total*
	No.	No.	No.	No.	No.	No.
Trainers & 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.33 **Changes in employer type, by entry position, 2006**

Employer at entry to VET (by entry position)	*Current VET employer*						
	TAFE	*School*	*Community*	*Enterprise*	*Industry*	*Commercial*	*Total*
	No.	No.	No.	No.	No.	No.	No.
Trainers & 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.34 **Workers returning to, or remaining in, TAFE, by entry position and employer type, 2006**

Entry position	*Returned to TAFE*	*Remained in TAFE*	*Total*
	No.	No.	No.
Trainers & 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.35 **Intentions to exit VET within 12 months, by current age and position, 2010**

	Current age						
Intention to exit (by current position)	*24 years or under*	*25–34 years*	*35–44 years*	*45–54 years*	*55–64 years*	*65 years and over*	*Total*
	No.	No.	No.	No.	No.	No.	No.
Trainers & 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 (2010g).

Table C.36 **Intentions to retire from VET within 12 months, by age group, 2010**

	Current age			
Intention to retire	*45–54 years*	*55–64 years*	*65 years & over*	*Total*
	No.	No.	No.	No.
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 (2010g).

Table C.37 **Reasons for intending to exit the VET workforce, by current position, 2010**

	Current position			
Reason for intending to exit[a]	*Trainers & assessors*	*Other VET professionals*	*General staff*	*Total*
	No.	No.	No.	No.
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
Don't 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 they were able to give more than one reason for intending to exit.

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

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 Victoria, Queensland, South Australia, Western Australia, Tasmania, and the ACT. Data for New South Wales was provided, but, due to time constraints, was not used in the analysis.

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 jurisudctions; 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 were used 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 Cox model relates the probability of a worker leaving TAFE to a selection of variables that describe their personal characteristics, their institution and their job (table C.38). The hazard ratio shows how the probability 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 reduces the probability of leaving TAFE to 90 per cent of its baseline value (that is, the probability of leaving is about 10 per cent lower if age increases by one year). The hazard ratio for the squared term for age indicates that the size of this effect also declines with age. The probability of leaving a job in TAFE is lower for older people, for females, for those who work more hours or have a high hourly wage, who are in ongoing positions, who work as trainers and assessors or are located outside the ACT.

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 employment history data at an individual level.

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. Causal modelling typically uses the Cox regression (or proportional hazard) technique to estimate the effect on the hazard function of changes in a selection of variables. Measured relative to a baseline hazard, these 'hazard ratios' show the change in the hazard as a proportion of its baseline levels. The technique assumes the hazard and baseline hazard are proportional to one another. 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: Lancaster (1990) and Cleves et al. (2008).

Table C.38 **Cox model of exits from TAFE[a]**

Variable	*Hazard ratio*	*SE*	*z*	*P value*
Age	0.9001	0.0107	-8.85***	0.000
Age squared	1.0008	0.0001	6.47***	0.000
Male	1.2671	0.0569	5.28***	0.000
Weekly hours	0.9746	0.0019	-12.90***	0.000
Hourly wage	0.9554	0.0033	-13.39***	0.000
Ongoing	0.1699	0.0082	-36.69***	0.000
Vic	0.6126	0.0649	-4.62***	0.000
Qld	0.0360	0.0067	-17.72***	0.000
SA	0.3627	0.0425	-8.66***	0.000
WA	0.6888	0.0778	-3.30***	0.001
Tas	0.1768	0.0299	-10.25***	0.000
Trainers and assessors	0.7413	0.0399	-5.56***	0.000
Other VET professionals	2.0048	0.3511	3.97***	0.000

a Model diagnostics: no. subjects 29 773; no. observations 29 773; no. failures 2333; time at risk 2 768 740; log likelihood -20 325; LR $chi^2(13)$ 4161; P-value 0.000. *** Significant at the 1 per cent level.

Source: Productivity Commission estimates based on TAFE administrative data for all jurisdictions except the Northern Territory (not supplied) and New South Wales (data received but, due to time constraints, will only be used in final report).

Table C.39 **Annual salary scales for trainers and assessors, 2010**

Lecturer/teacher scales

NSW		*Vic*		*Qld*		*SA*		*WA*		*Tas*		*NT*		*ACT*		*Modern Award*	
Level	$	Level	$	Level	$	Level	$	Level	$	Level	$	Level	$	Level	$	Level	$
10[a]	68 853	1.1	48 055	1	58 035	1	55 130	1	60 037	1	48 577	1	42 226	1	58 254	1	37 570
11	71 671	1.2	51 630	2	60 733	2	60 820	2	62 607	2	52 031	2	45 390	2	60 993	2	38 089
12	74 496	2.1	56 015	3	63 430	3	65 087	3	65 287	3	56 940	3	48 917	3	63 729	3	38 869
13	81 656	2.2	59 483	4	66 175	4	69 355	4	67 768	4	60 032	4	57 975	4	66 607	4	39 657
		3.1	60 724	5	68 974	5	76 045	5	70 344	5	62 961	5	59 733	5	69 617	5	41 316
		3.2	65 269	6	71 756	6	79 034	6	73 016	6	66 202	6	62 373	6	72 355	6	42 421
		4.1	66 993	7	74 563			7	75 791	7	69 569	7	65 187	7	75 230	7	43 428
		4.2	71 286					8	78 671	8	72 801	8	67 565	8	78 380	8	44 534
		5	74 624					9	81 662	9	75 323	9	70 644			9	45 645
												10	74 657			10	47 080
																11	48 415
																12	49 594
Average step	3 201		2 952		2 361		3 984		2 403		2 972		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 2010		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.3 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 permits 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 ANSZIC (ABS 2006c). Workers' occupations and industries in the SET, however, are defined at a more aggregated level than in the Census. The most recent data available from 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 is based on data collected at a single point in time. For these reasons, SET would not be expected to capture multiple job-holders for whom VET is not a main job, nor 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. The high estimate produced by 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 2010 for all but two jurisdictions (Victoria and South Australia) for which data refer to 2009.

Since they are drawn from the human resource management systems of providers, an advantage of administrative data — compared to the Census and 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 captures all workers who were employed by the TAFE at any time throughout a given year. Workers with intermittent involvement in the sector are, therefore, included.

Although the administrative data includes 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 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 2010g). 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.

D System performance

Performance of the vocational education and training (VET) system can be measured in a number of ways, including:

- accessibility — can potential students access the training of their choice
- student outcomes
- stakeholder satisfaction — where stakeholders include students and employers
- the resources expended in achieving outcomes.

The first three sets of measures go primarily to the effectiveness of the system, and the fourth relates to its efficiency (section D.1). Data on effectiveness and efficiency are presented in sections D.1 and D.2, respectively.

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 produced are those that the community values most and they are produced using the minimum possible level of inputs. Economic efficiency comprises:

- *productive efficiency*, which results when goods and services are produced at the lowest possible cost
- *allocative efficiency*, which results when the goods and services that are produced are those that consumers value most
- *dynamic efficiency*, which results when resources are split between current and future production in a way that maximises productive and allocative efficiency over time.

Productive efficiency is measured as the ratio of the value of outputs to the value of inputs. It is closely related to *technical efficiency*, which is measured as the ratio of the quantity of outputs produced to the quantity of inputs used.

Finally, an entity is fully *effective* if it achieves all that it is expected to achieve.

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**

	2004	*2005*	*2006*	*2007*	*2008*	*2009*
	’000	’000	’000	’000	’000	’000
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 key. 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*	*2000–2009*
	%	%	%	%	%	%	%	%	%	%	Growth in subject results %
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	**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*, http://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**

	Indigenous students	*Students with disability*	*All students*
	%	%	%
Subject result			
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, http://www.ncver.edu.au/statistic/publications/2268.html (accessed 3 September 2010).

Table D.4 **Qualification completions, publicly-funded VET sector, 2000 to 2008**

	2000	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
	'000	'000	'000	'000	'000	'000	'000	'000	'000
Qualification completions									
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]									
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*, http://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**

	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	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, http://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**

	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, http://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**

	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**

	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**

Percentage who agree or strongly agree with statements about different aspects of their training

	Diploma and above	*Certificate IV*	*Certificate III*	*Certificate II*	*Certificate 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**

Percentage who agree or strongly agree with statements about different aspects of their training

	Dipl. 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]

	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	42.8	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**

[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.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

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]

	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**

[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.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

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**

	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]

	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**

	Graduates					*Module completers*				
	Indigenous	*Speaks LOTE at home*	*Disability*	*Prior ed < Year 12*[a]	*Total*	*Indigenous*	*Speaks LOTE at home*	*Disability*	*Prior ed < 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
Don't 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]

	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*, http://www.ncver.edu.au/statistic/publications/2188.html (accessed 3 September).

D.2 Efficiency of the VET system

Productivity is a measure of the rate at which outputs of goods and services are produced per unit of input (for example, labour, capital, raw materials). It is calculated as the ratio of the value of outputs produced to some measure of the value of inputs used.

Measuring productivity in the market sector is relatively straightforward, as market prices can be used to aggregate diverse inputs and outputs, whether in one industry or across the entire market sector, and therefore used to calculate changes over time in the ratio of output to inputs.

However, measuring productivity in the non-market sector of the economy is less straightforward. While measuring inputs is typically not that difficult, the absence of prices for non-market sector outputs means that valuing output is much more complicated. There are also difficulties in assessing the quality of goods or services being provided.

Historically, the outputs of government services have therefore been measured in national accounts data based on the value of inputs (for example, nominal government expenditure on education deflated by an appropriate input price index). Given that real output effectively equals the value of real inputs by construction using this technique, productivity change is difficult to measure.

In recent years, statistical agencies and others have worked towards developing volume-based output measures for government services, including education, to replace input-based measures.

This work has tended to concentrate on schools, rather than in the VET sector. In Australia, Leigh and Ryan (2009) measured school productivity over time by relating student performance in literacy and numeracy tests to changing government expenditure on education.

Following the seminal Atkinson Report in the UK (Atkinson 2005), the British Office of National Statistics (ONS) developed a productivity measure for education using student attendance as an output, with adjustments made for student performance over time (to try to incorporate changes in quality), and government expenditure as an input.

Although these measures are an improvement on input-based measures that assume productivity is constant over time, they are imperfect. The input and output measures are often contentious, and it is difficult to account for changes in quality.

For example, implementing smaller class sizes will, all else equal, lead to a fall in measured productivity in the absence of any quality adjustment to the output. Further, any quality adjustment might be problematic as there are differing views about the impact of class size on education quality. If quality adjustment is based on student outcomes, these outcomes might vary for reasons determined outside the classroom.

The methodology used for calculating productivity can have a significant impact on results. For example, the ONS calculated that productivity growth for the education sector in Britain between 1998 and 2005 could have averaged between positive 2 per cent and negative 2 per cent a year, depending on the methodology used.

Given these limitations, the Commission considers that other measures of VET sector efficiency should be examined.

Productivity estimates for the VET sector

While recognising that measurement of productivity within education is difficult, the Commission produces annual data amounting to a proxy of VET sector efficiency. Specifically, it produces estimates of real government expenditure per hour of government-funded delivery (table D.18). The estimates indicate quite large falls in this measure over the five years to 2009. Subject to the qualifications described above, these data provide tentative support for a hypothesis that productivity has been increasing in the VET sector. However, this does not necessarily indicate that the efficiency or productivity of the VET workforce has increased. Lower government expenditure by publicly-funded hour of VET delivered could be a reflection of a number of factors, including changes in the mix of courses delivered or in the share of student co-payments.

Table D.18 **Real government expenditure per hour of government-funded delivery, 2005 to 2009**

	2005	*2006*	*2007*	*2008*	*2009*
Real expenditure ($m)	3511	3614	3415	3184	3215
Hours of delivery (m)	310	318	333	345	368
$ per hour of delivery	11.34	11.35	10.25	9.22	8.73

Source: Expenditure: Productivity Commission estimates based on NCVER 2009, *Australian Vocational Education and Training Statistics: financial information*, http://www.ncver.edu.au/publications/2305.html (accessed 4 October 2010); Hours: table B.4.

E Detailed institutional and government arrangements

This appendix provides useful 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 policy approaches taken to towards the VET sector across the various states and territories.

E.1 Institutional and governance arrangements for VET

An understanding of the environment in which the VET workforce exists and operates is fundamental to assessing it. This section describes institutional and governance arrangements surrounding the current VET system.

Governance and regulation

The institutional framework covering the publicly-funded VET sector is complex, with differing arrangements for governance, regulation and advice. These arrangements are made more complex by jurisdictional 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 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 and Territory Training Authorities (STAs) are accountable to their respective Ministers. These Ministers, together with the appropriate Commonwealth Minister (or Ministers), collectively form the Ministerial Council of Tertiary Education and Employment (MCTEE). 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 (formerly the Ministerial Council for Vocational and Technical Education) 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 needs 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 state-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
Australian Capital Territory	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 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.

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 Australian Qualifications Framework 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 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.

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 judgments made by the people assessing the competence of an individual's performance are valid, reliable, fair and consistent

Training Package support materials are designed to support the delivery and assessment of the 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
Australian Capital Territory	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 Commonwealth, 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 is expected to be in place from April 2011.

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, 2010f).

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 Act 2000* (Cwlth) (ESOS) 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). 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 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 of greatest need and impact — industries, population groups and sub-regions.
- 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. Industry training advisory bodies provide industry-specific training advice.

The 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).

The plan runs until December 2010, and a new strategic plan is under development to run until the end of 2013.

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 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 *Queensland Skills Plan 2008*, built on an earlier plan announced in 2006, seeks to alleviate future skills 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).

Key targets under the blueprint include:

- 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 people will 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 (South Australia)

South Australia, like Victoria, has proposed reforms (still under consideration) 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 would be to give purchasing power to clients (individual students and employers) so that public subsidies for VET are provided in accordance with their choice of training and provider. The 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.

Government subsidies would be highest for those qualifications that provide foundation and generic skills, with student fees increasing at higher qualification levels that provide the opportunity to earn higher incomes.

The reforms are also 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.

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).

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
- increase 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
- increase the proportion of 15 – 64 year olds enrolled in education or training to 18.9 per cent by 2010 and 20 per cent by 2015.

From the end of 2007, all students completing Year 10 in Tasmania are 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 greater options for students. The Tasmanian Academy is intended to focus 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 Federal 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 since 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 over three years.

Under *Jobs NT 2010–2012*, senior secondary students fulfilling base requirements such as attendance, participation and 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 based on 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 brief consideration of evidence at the Organisation for Economic Co-operation and Development's (OECD's) level, further attention is given to the VET sectors of the OECD countries of the United Kingdom (UK), United States (US) and Germany. These nations each have quite different systems, from each other and from Australia, but each has 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 OECD evidence on teacher and trainer effectiveness

Recent evidence from the OECD report, *Learning for Jobs* (OECD 2010) suggested that many developed economies are facing 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 have insufficient workplace preparation
- in-company trainers have insufficient preparation including educational preparation
- effective trainers need both educational capability and workplace experience.

The suggested responses to these issues are broad in nature as they pertain to OECD countries, in general. In particular it is suggested that OECD countries:

- recruit sufficient teachers and trainers for VET institutions, and ensure 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-company trainers
- encourage partnerships between VET and industry, so that VET teachers spend time in industry to update their knowledge, and in-company trainers spend some time in VET institutions to enhance their educational capability.

F.3 VET workforce in the United Kingdom

The UK 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 UK 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 the VET delivery in the UK), but many of the observations hold for the entire UK.

The framework that surrounds VET in the UK 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 UK has school-based VET delivery similar to Australia's VET-in-Schools (VETiS) programs.

During the last ten years, the UK Government has undertaken a series of reforms to enhance the quality of VET in that country. The recent policy prominence of VET has been accompanied by fast growth in public funding, with a doubling 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 UK 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 is effectively a doubling of attainment at most skill levels. The VET sector, as a major source of training in the UK, is seen as important in achieving these targets.

Teacher quality

In the UK, 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 UK 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 UK (the Office for Standards in Education — Ofsted) has sparked a number of reforms (box F.1). The UK moved from a system of relatively unregulated teacher standards to much stricter regulatory requirements related to teacher quality. At present:

- VET teachers in the UK 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 UK, 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 involves a 'full teaching role', called a 'Qualified Teacher, Learning and Skills' (QTLS), 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 on teacher quality**

The UK (prior to 2000) shared much of the same concerns around teacher quality that were expressed to the Commission in its consultations for this study. In particular, VET researchers in the UK 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 (ALI). 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 UK today.

To a large extent, the appropriateness of Ofsted's standards have gone unquestioned by the UK government, despite some commentators having reservations (Holloway 2009).

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 by most awarding bodies, 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 diverse means by which they would like this goal achieved. 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 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 UK has a relatively old and ageing 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. 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 skills shortages have 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 also help those institutions portray a more dynamic image and recruit younger staff in future.

F.4 VET workforce in the United States

In the US, 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 US, 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 schools. Most new teachers in the US 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 they 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 (industry) or qualified craftsman (crafts)
- 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 service 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 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 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.7 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 8). 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.8 Accountants in Australia

Voluntary registration has been suggested by some as a desirable model for VET teachers in Australia (chapter 8). 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 unable to switch accountants easily, it is unlikely that self-regulation would have arisen. It is the threat of competition and a need to protect the reputation of the profession that drive such schemes. In a highly competitive market, membership of a professional body confers a competitive edge.

It is unlikely that gaining a competitive edge would constitute as strong an incentive in the case of the VET workforce, especially that employed by specialised

providers. It is possible, however, that private trainers and assessors might benefit from subscribing to such a scheme.

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