Productivity Commission

Education and Training Workforce Study

(The VET Workforce)

Submission by the Department of Education, Employment and Workplace Relations

July 2010

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Introduction

The Productivity Commission has invited submissions from individuals or organisations in relation to their 'Education and Training Workforce Study', specifically, at this stage, on the part of the study which relates to the vocational education and training (VET) workforce. In terms of the scope of the VET workforce study, the Commission has been asked by the Assistant Treasurer to provide advice on:

- Factors affecting the current and future demand for the VET workforce, and the required mix of skills and knowledge;
- The current and future supply of the VET workforce; and
- The structure of the workforce and its consequent efficiency and effectiveness.

In addition, the Commission has been asked to consider, among other things, factors that impact on building indigenous workforce capability.

To assist with submissions, the Commission has prepared an issues paper providing an overview of the issues to be addressed by the study, and a number of specific questions for discussion and response.

The Department of Education, Employment and Workplace Relations is pleased to have the opportunity to make a submission to the research study.

DEEWR's submission provides our views on the matters raised in the issues paper, and in relation to the terms of reference of the study more generally. It also provides information on the demographic characteristics and profile of the VET workforce, and responds to specific questions raised in the Commission's issues paper, in the order in which they are raised.

Comments in relation to Chapter 2 of the Issues Paper: VET in the education sector and the economy:

What are the particular features of the VET sector that need to be taken into account in this study of the VET workforce?

The VET sector has a number of unique features which result in a diverse range of demands on the VET teaching workforce. These include:

- The age of VET students, this can range from 16 to 60 or older.
- The diverse backgrounds of VET students, who may be school students, unemployed people, migrants, people disengaged from learning and from disadvantaged backgrounds, existing workers with low levels of literacy, university graduates seeking vocational training, trained people seeking higher level qualifications, or retired people seeking re-training to return to the workforce.
- The locations where VET is taught, ranging from a classroom, a variety of workplaces, or on-line, to a remote location in regional Australia.
- The varied settings in which VET practitioners may operate. For instance, a VET practitioner may teach in a classroom in the morning and on a worksite in the afternoon, returning to an office to finalise assessments.
- The ageing workforce and the high level of casual and sessional staff in the sector.
- The fact that many VET practitioners are from industry backgrounds and do not have training in the practice of teaching, so may lack pedagogical skills.
- The requirement for current industry knowledge in VET delivery and the challenge this presents for the VET workforce to maintain currency of skills.

In the future, the VET sector is likely to experience an increase in demand for VET qualifications from the Australian community and for higher level VET qualifications, and pressure to respond to the skills demands of emerging innovation-based industries.

Three factors inform the expected higher proportion of the working population wanting VET qualifications, which, generally, will be at higher levels than at present:

- The market-led demand for higher skills;
- A government policy objective to increase industry competiveness through innovation; and
- Productivity demands related to higher levels of participation in post-school education and training.

While the VET sector's contribution to innovation is significant, it is often less noticeable than that of the higher education sector. Unlike the higher education sector in which R & D concentrates on 'breakthrough' technology, the VET sector assists incremental innovation and productivity growth in business through continuous improvement (Toner 2007). In Australian businesses where innovation is the dominant form of technical and organisational change, the innovation led by vocationally trained practitioners mostly involves adopting and/or adapting technologies or ideas from elsewhere, producing a unique pattern of innovation. Therefore, although there is a clear link between innovation in Australia and VET-skilled occupations (at trade and technician level) (Toner 2007), the sector's contribution to incremental growth is not clearly measured or appreciated.

Focussing on the future of VET, two recent NCVER studies explore ideas for improving teaching and learning practice among VET practitioners through ideas such as networks and centres of excellence (Guthrie & Clayton 2010; Figgis & Hillier 2009). Current research on VET teaching skills is underway both at NCVER and in collaboration with the Australian College of Educators.

The Issues Paper does not appear to have considered the implications of environmental sustainability imperatives on business, and the resulting demand for skills development on the VET workforce. Further discussion of this is provided in our comments on Chapter 4, below.

What criteria should the Commission use to define the scope of the VET sector for the purposes of this study?

We agree with the general approach to limit the study to the VET workforce delivering only accredited training, although there are some exceptions (see below). However, this must include consideration of instruction on-the-job as part of an accredited training program. There may be a misunderstanding in the Issues Paper in regard to on-the-job training. A large part of vocational education and training is provided on-the-job, with VET practitioners delivering accredited training in workplaces. This is not informal training.

The scope should also include accredited training delivered by enterprises to their staff through Enterprise Registered Training Organisations (ERTOs), and delivery of VET programs in schools and in Higher Education institutions.

Given the popularity of VET in Schools programs, and the implications for the broader VET sector, the scope, terminology and definitions in the report should explicitly consider demand and supply issues around delivery of VET in Schools. It should also consider the workforces which deliver VET in other settings such as in Adult and Community Education and dual-sector institutions.

In 2008, there were 220 000 VET in Schools students, representing 41.0 percent of school students undertaking a senior secondary certificate. In 2008, compared with 2007:

- The total number of VET in Schools students increased by 25.8 percent.
- The number of school-based apprentices and trainees increased by 71.9 percent.
- The number of students enrolled in other VET in Schools programs increased by 21.5 percent.[1]

The Issues Paper acknowledges that there is some non-accredited training that would fit within the study's scope, namely foundation skills training and courses tailored to the needs of individual firms. However, what is overlooked is the category of training described as "non-accredited training with vocational intent" (i.e. training with capacity to facilitate pathways to recognised VET qualifications and improved labour market outcomes). It is critical that this is also included, as it was identified by the Ministerial Council for Vocational and Technical Education[2] as an area to be targeted for increased delivery by all jurisdictions.

[1] VET in Schools 2008, NCVER.

[2] Ministerial Declaration on Adult Community Education, 2008, p.4 (http://www.dest.gov.au/NR/rdonlyres/76F7DFDA-B7FA-4D63-9206-3FEDE55AAD12/25118/08_505B_MinisterialDeclarationonACE.pdf)

Are there particular issues affecting the VET workforce that arise due to the increasing overlaps between the various education sectors?

The increasing overlaps between education sectors means that VET teaching is delivered in multiple contexts, from VET in schools to higher education programs, and for many different purposes.

Our understanding from previous research is that while the VET sector itself overlaps across schools, Adult Community Education (ACE) and higher education, the VET workforce in those areas tends to remain confined within those sectors. For example, secondary teachers teaching VET in schools remain within the schools teaching supply: they are school teachers who teach VET, rather than VET practitioners who work in schools. Administration and workplace practices of the school sector apply to these staff, who do not therefore constitute a "general practitioner supply" for non-school Registered Training Organisations (RTOs).

The qualifications held by VET teachers will also vary widely, depending on the primary sector in which they are working. For example, while VET practitioners in the mainstream VET sector will often have a Certificate IV Training and Education (TAE) together with a relevant occupational qualification, within schools, teachers will usually have degree qualifications, and in the higher education sector, they will often have higher degrees and PhDs. This again reflects the fact that VET practitioners operating in sectors other than VET will often identify with that sector, e.g. schools or higher education, rather than as a VET teacher.

The merging of the VET and higher education sectors has led to increasing pressure to overcome the barriers to articulation between VET and higher education. One oft-cited barrier to articulation is the higher education sector's confidence in the assessment processes of the VET sector, which suggests that one solution may be to improve training in assessment approaches in VET.

Increasing overlaps between the sectors could potentially provide pathways for teachers to engage in staff development and to acquire the qualifications they need to teach at higher education levels, and opportunities to engage in the knowledge and theory in their field.

Do you agree with the terminology used in this paper to refer to the three broad groups of employees identified in the VET sector? If not, what alternative would you suggest and why?

It would be better to separate VET practitioners from VET professionals, with 'VET practitioners' (or VE Teachers) covering those that have face to face contact with students, such as teachers, trainers and assessors. Staff performing non face to face educational roles, such as those with expertise to develop and review course content, or tailor curricular to users needs, or developing course materials would be covered by the 'VET professionals' category. Staff that do not require either an education or vocational background would be covered by the 'General staff' category.

The Department believes the distinction between VET Teachers and VET Professionals is important particularly in the consideration given to credit arrangements made between universities and VET providers. In coming to decisions about granting credit, universities will often consider the qualifications of those teaching courses and the qualifications of those designing the course content, as well as the course content itself

Do you agree with the possible approach to defining the VET workforce as all employees of VET providers — including managerial and administrative staff, self-employed persons and independent contractors — but excluding government and peak industry group employees? If not, what alternative would you suggest and why?

The Department agrees with the coverage suggested. We note that the latest research, including that of the NCVER, indicates that supply of managerial staff, in particular, is increasingly sourced from **outside** the VET workforce – and that in fact this is an inhibiting factor to career progression and retention of teaching and professional staff within VET. It may be very useful for this Issues Paper to consider the permanent or long-term attachment of staff to being part of a "VET workforce", as opposed to being a manager or professional who happens to work in VET.

What key objectives is the VET workforce seeking to achieve?

We suggest that the study should refer to the implications of relevant COAG targets, including those which aim to:

- Halve the proportion of Australians aged 20-64 without qualifications at Certificate III level and above between 2009 and 2020;
- Double the number of higher qualification completions (diploma and advanced diploma) between 2009 and 2020; and
- Lift the Year 12 or equivalent attainment rate to 90 percent by 2015.

The Government's higher education reforms set out in *Transforming Australia's Higher Education System* also sets an ambition that by 2025, 40 percent of all 25 to 34 year olds will hold a bachelor degree or above.

A key objective of the VET workforce is to deliver quality training outcomes that meet the diverse skills needs of the Australian economy, and to help strengthen the economy by increasing productivity, and providing the skills needed for recovery. This will be particularly crucial in areas where demand has threatened to outstrip supply in sectors such as construction, infrastructure, renewable energy and resources.

Achieving these objectives will require a significant expansion of VET to cater for more and different learners from groups such as school students (VET in Schools), equity groups, and existing workers seeking re-skilling and up-skilling, particularly in higher level skills. This implies the need for more VET practitioners. It will also entail greater and different demands on the capabilities of the VET workforce. It may also involve training more workers in the workplace and providing them with a practical means to improve their skills without having to give up their job to study. This will require teaching numeracy, literacy and language skills and foundation skills. Around 40 percent of Australian workers do not have the basic literacy and numeracy skills needed in a modern workforce, and around 60 percent of unemployed Australians do not have the necessary foundation skills to successfully complete a Certificate III qualification.The skills and capability of the VET workforce will also be critical to reforming the training system and to achieving the Australian Government's youth employment and social inclusion measures, as well as the Skills for Sustainable Growth initiative.

The Skills for Sustainable Growth initiative, part of the 2010-11 Budget, is designed to respond quickly through innovation to skills hot spots emerging through the growing economy, boost the capability of the workforce now and in the longer-term, and improve training in the vocational education sector.

Should the workforce be assessed against its capacity to achieve those objectives? What metrics should be used to measure achievement of those objectives?

The challenge is to ensure that the VET sector has the trained practitioners to produce and deliver quality courses and learning outcomes. The VET workforce will be assessed against the

degree to which it is able to deliver the workforce skill needs to support the Australian Government's productivity agenda and the skills challenges facing the Australian economy. It will do this directly by providing the qualifications and skills Australia needs to remain globally competitive, and indirectly by providing learning that is a pathway to further education or training.

High quality teaching is a key driver of student performance and better student results lead to more productivity and innovation. An important outcome of the quality of teaching is the quality of the experience of students, and the skills they bring to the workplace. This will require the development of indicators or measurements of the quality of teaching and the quality of the student outcomes.

It is our view that a single uniform definition of objectives and performance measures across the whole VET workforce could not be successfully applied. For example, the kinds of metrics used to measure success in the area of higher level qualifications may need to be more closely aligned with higher education outcomes than with those for Certificate I and II qualifications. One point of difference, for example, is that Diploma and Advanced Diploma qualifications have greater potential for articulation into higher education.

Comments in relation to Chapter 3 of the Issues Paper: An overview of the VET workforce

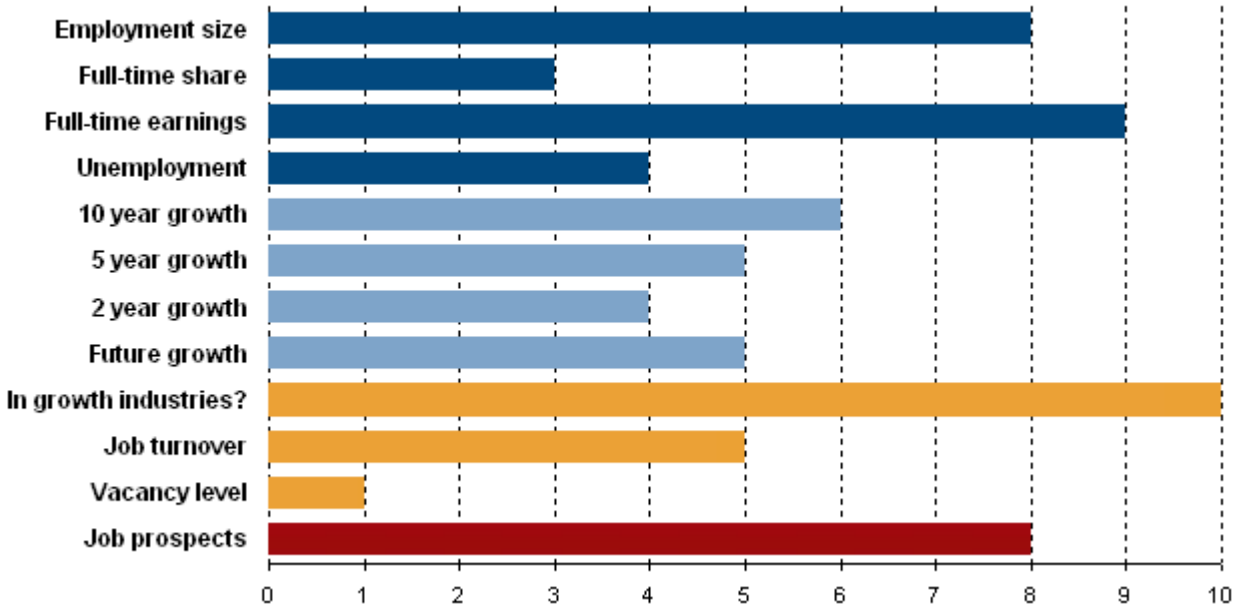
The following introductory comments provide information about employment and training in the VET workforce, using the data available to DEEWR.

Vocational Education Teachers teach one or more subjects within a prescribed course of study at technical and further education (TAFE) institutes, polytechnics and other training institutes to tertiary students for vocational education and training purposes. According to labour market analysis conducted by DEEWR:

- Job prospects for Vocational Education Teachers are **good** (see Figure 1).
- Employment for Vocational Education Teachers to 2014-15 is expected to **grow moderately**.
- Vocational Education Teachers have a below average proportion of full-time jobs (59.9 per cent). For Vocational Education Teachers working full-time, average weekly hours are 37.4 (compared to 41.3 for all occupations) and earnings are high - in the ninth decile. Unemployment for Vocational Education Teachers is below average.
- Vocational Education Teachers are employed across several industries including: Education and Training (the dominant industry); Public Administration and Safety; Financial and Insurance Services; and Health Care and Social Assistance.
- The (internet) vacancy level for Vocational Education Teachers is **very low**. The proportion of workers leaving the occupation (and needing to be replaced) is 12.4 per cent (annually) compared to the average for all occupations of 13.1 per cent.
- The mix of industries employing Vocational Education Teachers is highly favourable for employment growth prospects.

The charts below provide more detailed information about employment trends and labour force characteristics.

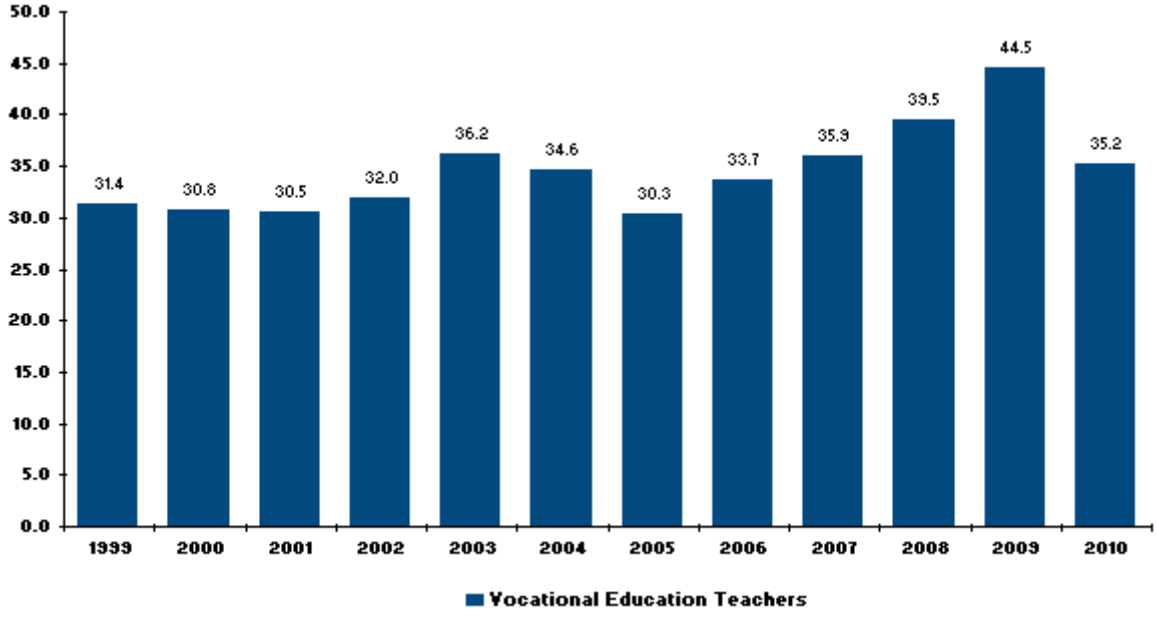
Figure 1: Key employment indicators



Source: Job Outlook, www.joboutlook.gov.au

In May 2010, there were 35 200 Vocational Education Teachers, which is 7.5 per cent of the total number of Educational Professionals (see Figure 2). Employment of Vocational Education Teachers increased steadily between May 2005 and May 2009 (up by 46.9 per cent) but decreased by 9300 (down by 20.8 per cent) in the year to May 2010.

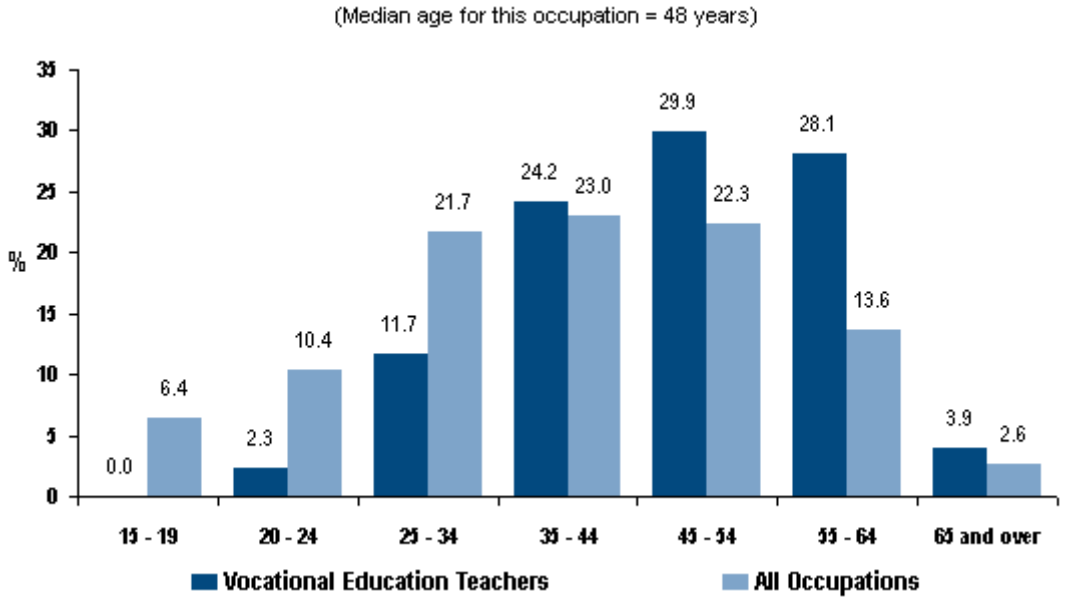
Figure 2: Employment Level ('000) – May 1999 to May 2010



Source: ABS Labour Force Survey cat no. 6291.0.55.003 (DEEWR) trend data

Ageing of the workforce is evident among Vocational Education Teachers. The median age of this occupation is 48 years compared with 39 years for all occupations (see Figure 3). Compared with all occupations, the age profile of Vocational Education Teachers is skewed towards workers aged 45 years and over (61.9 per cent compared with 38.5 per cent for all occupations). By contrast, the share of workers aged 15-19, 20-24, and 25-34, is below the average for all occupations (14.0 per cent compared with 38.5 per cent).

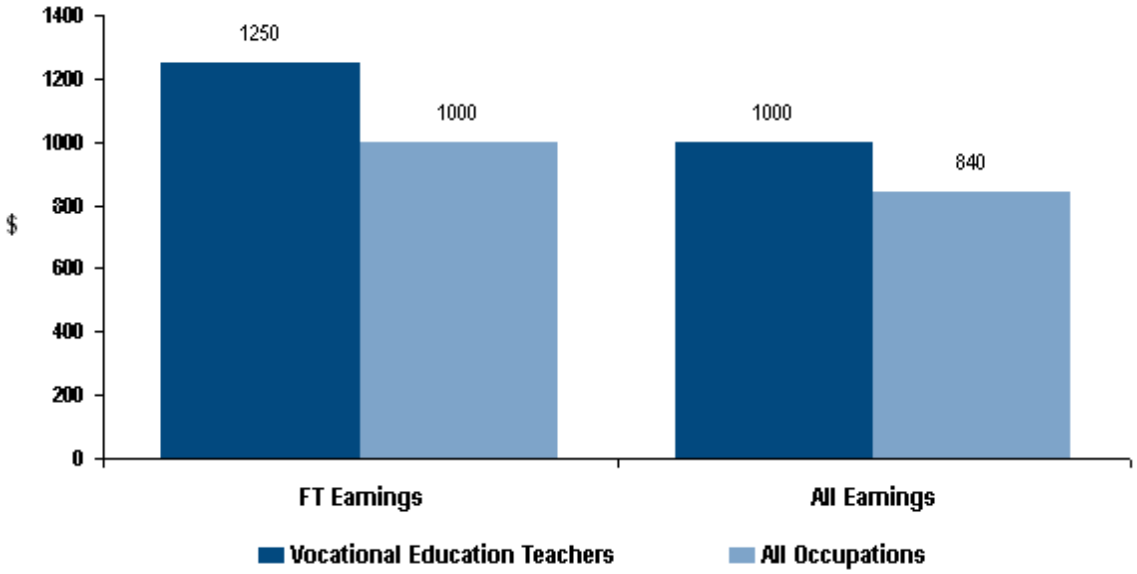
Figure 3: Employed by Age (% share of employment) - 2009



Source: ABS Labour Force Survey cat no. 6291.0.55.003 (four quarter average)

In 2008 (latest data), the median weekly full-time earnings for Vocational Education Teachers was $1300, compared with $1000 for all occupations (see Figure 4). The median weekly total earnings for this occupation were also higher than for all occupations ($1017 compared with $805).

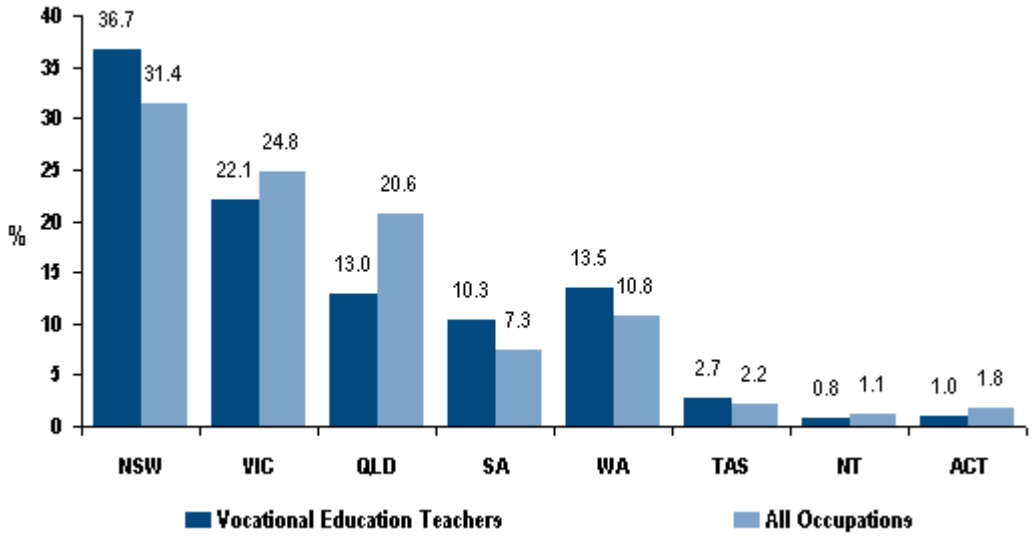
Figure 4: Median weekly earnings (total/full-time, before tax) – August 2009



Source: ABS EEBTUM survey August 2009 cat. no. 6310.0.

In 2009, the highest share of employment of Vocational Education Teachers was in New South Wales (36.7 per cent), followed by Victoria (22.1 per cent) and Western Australia (13.5 per cent, see Figure 5).

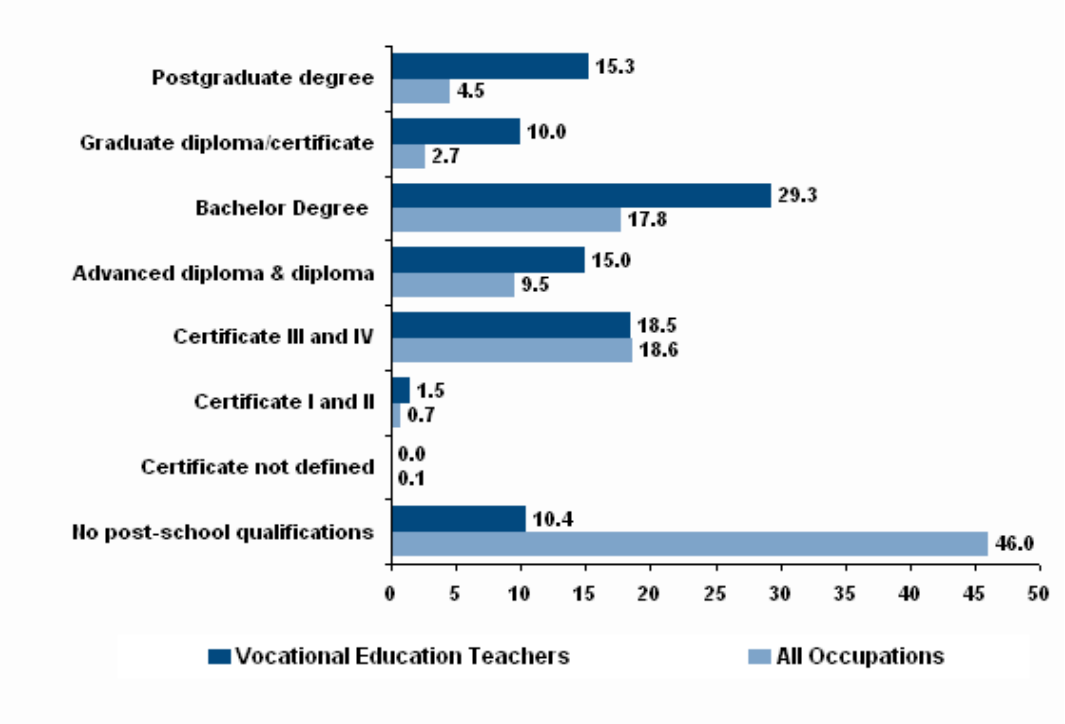
Figure 5: Employment by State / Territory (% share of employment) - 2009



Source: ABS Labour Force Survey cat no. 6291.0.55.003 (four quarter average)

In May 2008, around nine in ten (89.6 per cent) Vocational Education Teachers had completed post-school qualifications, compared with 54.0 per cent for all occupations (see Figure 6). The main qualification of Vocational Education Teachers was a Bachelor Degree (29.3 per cent compared with 17.8 per cent for all occupations).

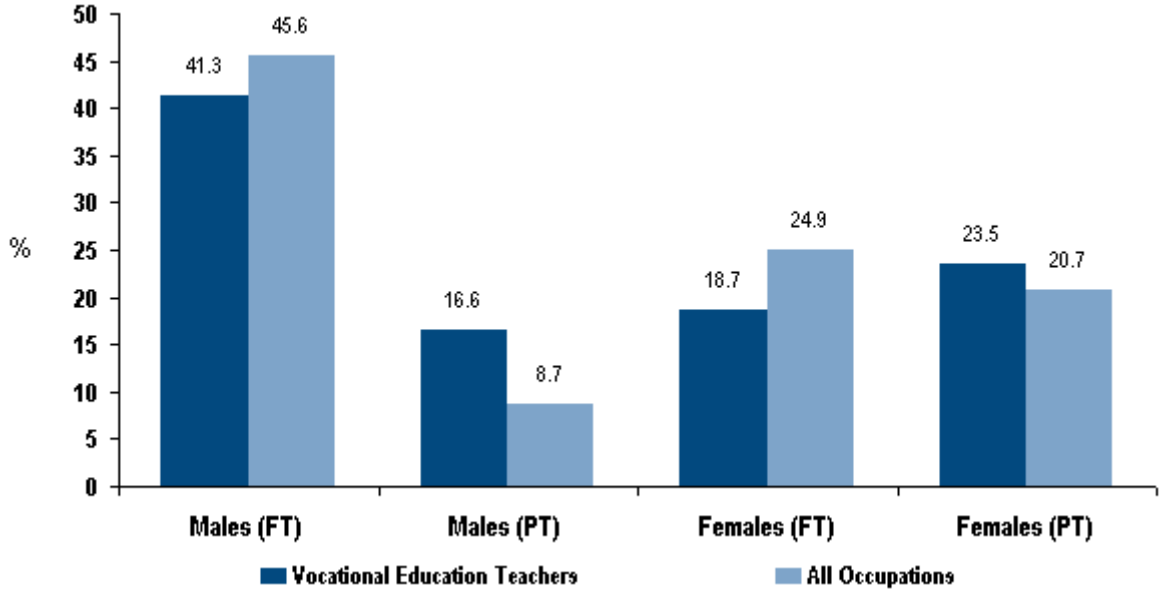
Figure 6: Educational Attainment (% share of employment) – May 2008



Source: ABS Education and Work, cat no. 6227.0 (May 2008)

In 2009, the majority of Vocational Education Teachers (57.9 per cent) were male with most (41.3 per cent) working full-time (see Figure 7). There is a slightly larger share of female part-time workers compared with female full-time workers (23.5 per cent compared with 18.7 per cent).

Figure 7: Employment by Gender and Full-time / Part-time - % share of employment - 2009

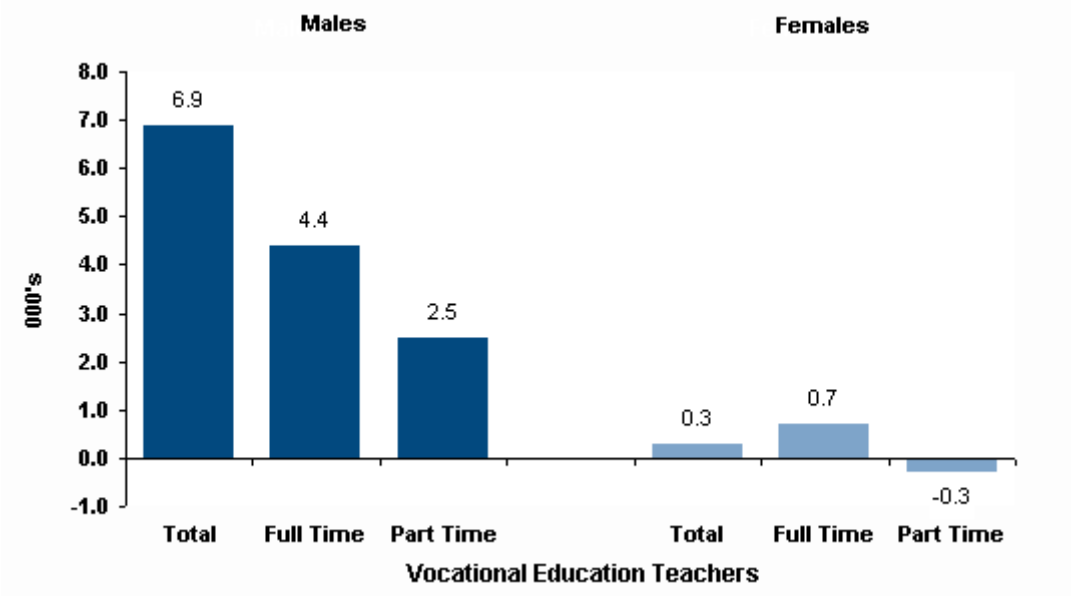


Source: ABS Labour Force Survey cat no. 6291.0.55.003 (four quarter average)

In the five years to 2009, employment for male Vocational Education Teachers has grown strongly (up by 6900, see Figure 8). Of these male workers, 4400 worked full-time. Employment

has risen slightly for female full-time workers (up by 700). However, employment declined slightly for female part-time Vocational Education Teachers (down by 300).

Figure 8: Employment Growth by Gender and Full-time / Part-time - 5 years to 2009 ('000)



Source: ABS Labour Force Survey cat no. 6291.0.55.003 (four quarter average

What are the key reasons for the apparent older age of VET practitioners relative to the total labour force? Do you agree with this assessment? If so, why do you think this is the case?

VET specifically seeks career-change practitioners from industry for its course delivery. This is particularly the case in TAFE where the majority of traditional trades apprenticeships are delivered. TAFE job sites specifically recruit on the basis of experienced practitioners passing on their skills, for example "If you are a professional, technical or tradesperson and looking for a new and existing career as a TAFE teacher…" (job info from TAFE QLD website).

Is the profile representative of the sector overall? Are there significant differences in various sub groups?

The summarised profile of the VET workforce provided in the Issues Paper is a composite data representation and would not seem to fit many of the key areas of future VET workforce shortages, particularly the trades. There may be some distortions of data: for instance, the 60 percent of the workforce stated to have degrees is inflated by the inclusion of the non-teaching workforce; and the 5 percent stated as working in a higher education setting is probably too low, due to the difficulties in counting staff who may teach in both sectors.

DEEWR's Workplace Agreements Database (WAD) provides some additional information about the profile of the VET workforce.

The WAD is a census database of all federal collective agreements made since the inception of enterprise bargaining in the federal workplace relations system in 1991. The WAD contains data about conditions, wage increases and the coverage of all collective agreements. The data are capable of being aggregated by industry and sector. The WAD is maintained by DEEWR. The WAD also contains demographic data about employees with a disability, who are Aboriginal or

Torres Strait Islander, or from a non-English speaking background. Data about the coverage of these groups of employees can be provided if requested.

There were 38 collective agreements covering employers in the VET industry in operation[3] at 31 December 2009. These agreements were identified by identifying all current agreements in the Tertiary Education ANZSIC division[4] and manually filtered to remove agreements that applied to higher education, rather than VET, employers.

The 38 current VET collective agreements cover 18 797 employees. This represents 0.2 per cent of all current agreements and 0.8 per cent of all employees covered by current collective agreements.

[3] i.e. not terminated and not passed their nominal expiry date. However, statutory workplace or enterprise agreements remain in operation after their nominal expiry date until they are formally terminated or replaced by a new agreement. Ss such, there may be other, older agreements operating in the VET that have not been identified in this data.

[4] ANZSIC division 81. WAD data is recorded at the two digit ANZSIC level.

Table 1: VET Collective Agreements by sector (public/private), estimated employee coverage

Sector	VET industry		All agreements	
	Number of agreements	Estimated employee coverage	Number of agreements	Estimated employee coverage
Public	25	16 638	616	489 711
Private	13	2 159	21 468	1 815 399
All	38	18 797	22 084	2 305 110

Part-time employees made up 16.5 per cent of all employees covered by VET agreements. Casual employees made up 46.2 per cent of all employees covered by VET agreements. Female employees made up 50.2 per cent of all employees covered by VET agreements.[5]

By comparison, in all collective agreements in operation at 31 December 2009, 19.1 per cent of employees were part-time, 24.2 per cent were casual and 44.0 per cent were female.[6] In current collective agreements for the VET industry, a higher than average proportion of employees were casual employees, a slightly higher than average proportion of employees were female and a smaller than average proportion of employees were part-time.

Public sector agreements in the VET industry had a higher proportion of employees from all three demographic groups than private sector agreements in the VET industry. By comparison, private sector agreements in all industries tended to have higher proportions of part-time and casual employees than did public sector agreements.

Table 2: VET Collective Agreements, by gender and type of work (part-time/casual)

	VET industry			All agreements		
	% Female	% Part-time	% Casual	% Female	% Part-time	% Casual
Public	50.3	16.5	47.1	52.5	13.7	9.7
Private	49.4	9.2	36.5	41.8	20.6	27.6
All	50.2	15.9	46.2	44.0	19.1	24.2

What are some other defining characteristics of VET workers?

The VET sector is complex and VET practitioners are required to meet a wide range of demands on a daily basis, ranging from negotiating with employers and industry to address skills needs, classroom delivery, to providing on-the-job training while developing individual student learning and assessment strategies.

The sector is also defined by the need for industry expertise and the greater focus on competency based training and producing training outcomes that meet the needs of the workplace. This leads to a wide range of modes of delivery, including on the job and block release or completion of units of competency rather than a full qualification.

[5] Demographic statistics were not available for all agreements. For the VET sector, 16 agreements contained details of part-time coverage, 17 contained details of casual coverage, and 18 contained details of female coverage. The percentages provided are calculated using only these agreements.

[6] Demographic statistics were not available for all agreements. For all current agreements, 8866 contained details of part-time coverage, 11084 contained details of casual coverage, and 12362 contained details of female coverage. The percentages provided are calculated using only these agreements.

Should the Commission think about particular subsets of the VET workforce? If so, how could these subsets be defined, and why do you hold that view?

The VET workforce is not homogeneous and its characteristics for entry, supply and future opportunities vary widely. The Commission should consider the following subsets of the VET workforce:

- in the public sector, TAFE and ACE;
- in the private sector, for profit RTOs, Enterprise RTOs, and community based RTOs including identifiable sub groups such as independent Indigenous controlled RTOs and other community based providers classified by their target student cohort.
- VET delivered in schools;
- VET delivered in higher education;

Competition in the market place and availability of funding is likely to affect the movement of qualified people between these subsets of the VET workforce for a range of reasons, including remuneration and related working conditions. For example, a particular sub-set are the teaching staff for the higher level VET qualifications, who are going to be increasingly required to match academic qualifications with those teaching undergraduate courses in higher education, particularly for STEM (Science, Technology, Engineering and Maths) subjects.

As discussed previously, VET in schools teachers are teaching a different population and in a different setting to the mainstream VET workforce. They are teaching a young cohort of students who may have less settled views about their careers, in a school rather than post-school environment.

It would also be useful for the study to consider the particular issues relating to the trades and to Language, Literacy and Numeracy (LLN) trainers. These populations are important because:

- The increased focus on trade training and skills shortages in some key areas make differentiating between trainers in trade and non-trade areas an important aspect of the study.
- The increasing importance of LLN in the workplace and evidence that many Australians do not have adequate levels of LLN (7 million (47 percent) Australians aged 15-74 have difficulty in locating a piece of information in a document or making simple conclusions from text)[7] makes this population of trainers important to current and future policy.

There is limited access to a profile of the Indigenous VET workforce. Statistical and qualitative research in this area would be useful.

What are the advantages and disadvantages of the SET and Census data? Would data based on administrative collections be more useful than these datasets?

Both SET and the Census at the moment collect data on the basis of "highest qualification" thus disguising those who hold, for example, a Diploma and a Degree. SET may change in the future, but the 2011 Census will retain the same 2006 Census qualifications questions.

Both data sets are a collection at a point in time. Casual staff (who are not employed or paid during semester/term breaks) may not be fully accounted for.

VET activity is currently excluded from ABS datasets on innovation, and research and development. Statistics relating to higher education expenditure on research and experimental

[7] ALLS 2006

development exclude non-university post-secondary education institutions (e.g., technical and further education colleges) (see ABS 2003).

Do you know of other data sources that could help the Commission measure and describe the VET workforce?

The Department's Workforce Development Branch has recently commissioned a suite of research projects that have examined VET's role in enhancing Australia's innovation and productivity growth. Research has been conducted by the National Centre for Vocational Education Research (NCVER), the Centre for the Economics of Education and Training (CEET), Monash University; the Centre for Industry and Innovation Studies (CInIS) and the University of Western Sydney; as well as by OECD agencies. Specific papers relevant to the Commission's study are listed at Attachment B.

Please note that these data sources predominantly cover only VET training by publicly funded training providers. Little robust data exists on the role of private sector providers, although CEET has been commissioned to try to ascertain how the private sector contributes through private sector and informal training.

However, before considering this research, it is important to note the limitations accompanying its publication. To this date, on-going CEET research by Shah (2010) is tempered by the following limitations:

- The data covers only publicly funded VET/higher education, limited by the unavailability of data for private supply. Work is in train with CEET to estimate private provider demand and supply. More valid data about VET will be available in January 2012 when NCVER makes available the Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS) and software for its application.
- In general the analysis of past trends is limited to years 2001-2008, which is not sufficient for "robust" trend analyses. This is particularly problematic given the apparently very high growth in diplomas, which contrast with apparent negative trends in Certificates I and II (2001-2008). However, these are for 'highest' qualifications and do not show demand for initial or pathway qualifications.

Some NCVER data is also limited in terms of its application to VET (see Guthrie 2008):

- There is no targeted and consistent collection of data on the VET workforce meaning that information has to be inferred from other surveys and collections (such as the census). This limits how the data can be used for workforce planning and policy development.
- However, census data under-represents the number reported as VET teachers in the population. In addition, data is commonly sought about respondents' main job, but a number of VET teachers work part-time.
- The respondents only include public providers (Guthrie 2008).

We understand from the TAFE Directors Australia (TDA) website that they intend to survey their members about workforce characteristics in June-July 2010, and this should be a valuable addition to existing data.

Additional data sources could include Treasury modelling, Centre of Policy Studies (CoPS) Monash, DEEWR SkillsInfo and Labour Market Information Portal (LMIP), and Skills Australia's Access Consulting modelling.

Comments in relation to Chapter 4 of the Issues Paper: Demand Influences on the VET sector

The Commission may wish to consider the implications of global, national and local concerns about environmental sustainability, and increasing consumer demand for sustainable products, services and advice, as an important influence on demand for VET from industry and individuals. These issues are not covered in the Issues Paper, but DEEWR has conducted research that indicates that sustainability is likely to influence future VET demand.

The *Skills for a Sustainable Future* employer survey, conducted by DEEWR in late 2009, using 1,932 businesses, demonstrates that many businesses are keen to become more sustainable by saving water, energy, paper, and fuel and by recycling, better waste disposal and site management practices. However, many of these businesses are unsure about how to go about up-skilling or re-skilling staff to meet these sustainable behaviours and practices. In the absence of affordable, industry-relevant training options in the national training system, many employers are turning to informal, non-award training delivered in-house or by private providers. This training may not provide the broad-based, holistic approach to education for sustainability required to change behaviours and encourage workers to promote and advocate sustainability.

The implementation of the *Green Skills Agreement* will build the capacity of the VET sector to develop innovative, flexible training options for employers and businesses to access high quality, industry relevant skills for sustainability.

What impact might demographic trends have on future demand for VET, and the VET workforce?

With the overall Australian population ageing, there will be increasing demand for skilled workers in areas that cater for the needs of older Australians such a as aged care, allied health and community services, thus placing pressure on the VET sector to provide the training to produce these skills.

However, projections based on the Australian population ageing as a whole should also be mindful of the fact that the Indigenous population is young, with 49 per cent aged 19 years and under, and it is growing much faster than the non-Indigenous population. This requires special attention in policy responses.

As the aging VET workforce retires from the sector, new practitioners will have to be attracted to the sector from a proportionally smaller number of younger workers in the Australian workforce who will be in demand in an economy with an expanding employment market and high demand for skilled labour. Innovative approaches will need to be considered to attract potential VET employees in this environment, including enticing older tradespeople into a teaching role. The entry of large numbers of new employees into the sector will also place demand on entry level training, professional development, and mentoring for the new teachers as well as making use of mechanisms such as Recognition of Prior Learning to fast track qualifications acquisition.

To remain in the workforce, older workers may look to change occupation or up grade their skills. Evidence shows that many older workers participate more readily in informal training than formal training. Informal training is less structured than formal training, and draws on older workers' previous work and life experience more successfully than formal training. In addition, recognition of prior learning and current competencies are likely to become more important for the workers over 35 who have already invested time in training early in their career.

Workforce participation is low for 25-64 year olds who have not previously engaged in formal education. However, evidence also shows that individuals in this age bracket who have a previous qualification are much more likely than those with no former qualification to re-engage in formal education, providing a pathway for ongoing attachment to the workforce for older workers. Increasing the engagement of 25-64 year olds in formal education will help to maximise workforce participation, as formal learning provides the knowledge, skills and confidence workers need to enter/remain in/return to work.

There will be demand for an expanded VET workforce for VET training in early childhood care and development as women's participation rate increases and mature-age women remain in the workforce rather than supplying informal childcare. In some industries, there are barriers to flexible working arrangements that would allow for the up-skilling or re-skilling of workers, such as modified/reduced working hours, job sharing and professional development.

As labour shortages increase, employers and training providers will need to be innovative in the way work is organised and how competencies are obtained, to attract the shrinking supply of available talent to meet their demand for skills, and to train the existing workforce to meet changing workplace skill needs.

In many industries, technology and ICT are changing the skill set required of workers. This presents challenges for older workers, many of whom may not have the experience/confidence to adjust to new skill requirements without training suited to their needs. The VET workforce study will need to consider innovative modes of, or alternative pathways to, training to assist mature-age workers into trades or vocational occupations especially those requiring training in modern technologies and techniques.

What is the impact of economic activity, in the broad and over the economic cycle, on demand for training and the VET workforce?

As the economy recovers from the global financial crisis, skills shortages will become more pronounced, particularly in mining, building and construction, health, and community services, with the potential for this to worsen due to demographic shifts resulting in lower workforce participation. This is likely to placed increased demands on the VET system to train more people, while also decreasing the supply of trained people capable of delivering this training.

We know that we need to train more Australians rather than relying too heavily on skilled migration to solve skills shortages. A recovering economy and ongoing structural change bring the risk of a patchwork economy, where skill shortages and growing national prosperity co-exist with pockets of entrenched disadvantage and exclusion. This risk has a social dimension—Australians unable to share in, or contribute to, the nation's prosperity. Importantly, there is also a significant economic dimension, including unnecessary constraints on growth and fiscal pressures.

Rural, regional and remote parts of Australia are likely to experience growth through new investment, such as major resources developments in Western Australia and Queensland. These projects will also require significant operating infrastructure, rail, air and sea ports, as well as basic social and physical infrastructure to support an operational workforce or a resident population. While some of this pressure will be alleviated by projects commencing at different times and construction employees moving between projects, shortages may emerge across occupations as labour is attracted to higher wage occupations.

The VET sector will play an important role in ensuring accessibility, delivery and flexibility of training in the necessary skills for the projects, industries and regions that need them most. In the near term, skills vacancies are trending upwards, with the greatest demand being felt in metal, construction, automotive and wood trades.

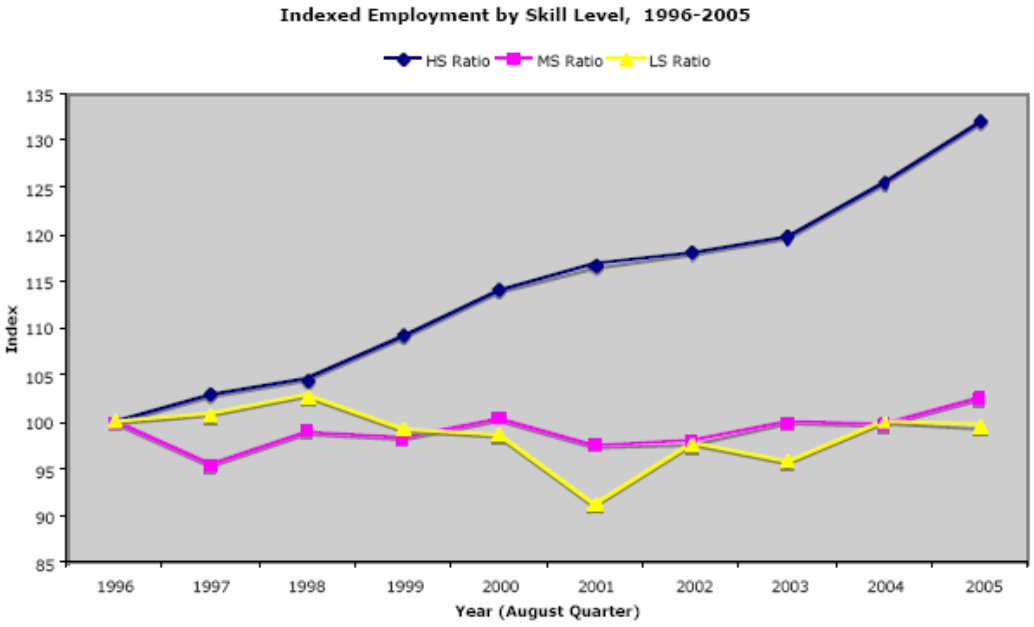
What structural trends within the economy should be taken into account when considering future demand for VET?

In an increasingly global economy, international trade leads to structural shifts as countries shift production to areas of comparative advantage. The relative cost of labour is more expensive in developed countries such as Australia, shifting the production of labour intensive goods to developing countries where labour is cheaper. This lowers the relative demand for unskilled labour in developed countries and shifts the economy away from labour intensive industries such as manufacturing. Meeting the demand for multiple and higher skills in key sectors of the economy is critical if Australia is to remain globally competitive.

Figure 9, below, shows that since 1996, demand for high skilled jobs has grown since 1996, in contrast to medium and low skilled jobs which remain static.

Figure 9: Comparison of demand for high, medium and low skilled labour in Australia (full-time workers) 1995-2005

Figure 1 Comparison of demand for high, medium and low skilled labour in Australia (full-time workers) 1996–2005



Source: ABS Labour Force Surveys (various)

Source: Lowry, Molloy & McGlennon 2008 using selected ABS Labour Force Surveys

There appear to be two main causes for the global shift towards high-skilled workers:

- Global change leading to higher levels of international trade.
- Skill-biased technical change.

Technological change within an economy decreases the demand for unskilled labour as capital and unskilled labour are substitutes in production. That is, many of the tasks that involve low-skilled labour are replaced with capital. High-skilled labour, on the other hand, is generally considered to be complementary input to capital in production. That is, firms demand high-skilled labour to operate and maintain capital, leading to an increase in the demand for skilled labour.

The main factors contributing to changes in skill demand are:

- Changes in industry skill composition;
- Changes in industry occupational composition;
- Changes in industry growth rates.

Lowry, Molloy and McGlennon define three dimensions of skill, as set out in the table below.

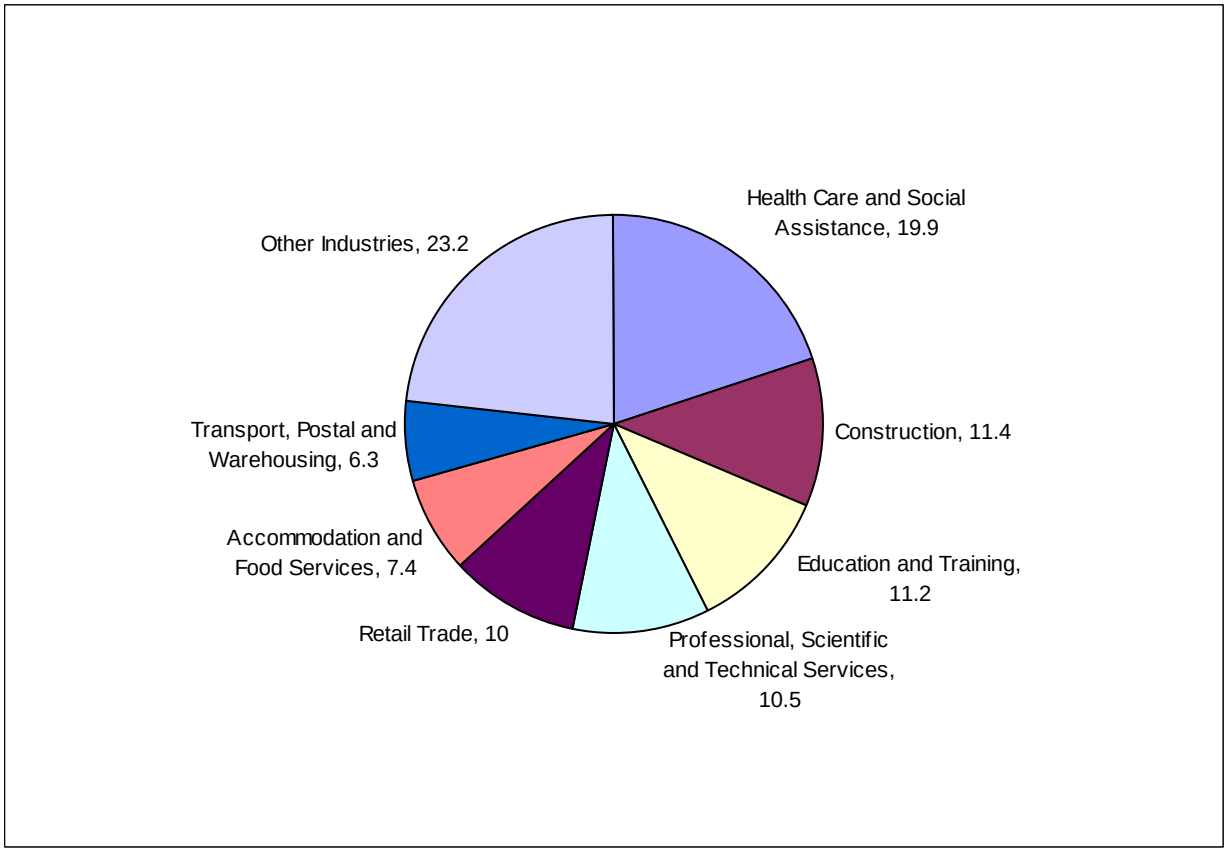
Table 3: Scale of complexity for skill categories

Cognitive skills (”data‘)	Interactive skills (”people‘)	Motor skills (”things‘)
0 Synthesising	0 Mentoring	0 Setting up
1 Coordinating	1 Negotiating	1 Precision working
2 Analysing	2 Instructing	2 Operating - controlling
3 Compiling	3 Supervising	3 Driving - operating
4 Computing	4 Diverting	4 Manipulating
5 Copying	5 Persuading	5 Tending
6 Comparing	6 Speaking - signalling	6 Feeding
	7 Serving	7 Handling
	8 Taking Instructions - helping	

Source: Lowry, Molloy & McGlennon 2008 using typology from the US Department of Labor.

The following chart shows the projected employment growth for industry sectors in Australia to 2012-13.

Figure 10: Projected Employment Growth by industry to 2014-15 (% share)



DEEWR 2010, Australian Jobs 2010

Lowry, Molloy & McGlennon (2008) use DEWR (2005) data on the projections of industry skill and occupational compositions and industry growth and apply aggregate weighted average skill dimension estimates to project future demand for different skill types. The authors find that interactive and cognitive skills will increasingly be in demand while the demand for motor skills is projected to decline. In a practical sense this may lead to some traditional VET areas becoming vulnerable, as the table below shows.

Table 4: Advantaged, insulated and vulnerable occupations and skill sets

Occupation type	Examples
Globally advantaged occupations	1 Conceptual occupations, eg. Managers, financial dealers, various professional groups such as scientists, media and arts occupations
	2 Technical occupations, such as most technicians and other associate professional occupations
Insulated occupations	1 In-person professionals such as medical practitioners and school teachers
	2 In-person skilled workers such as real estate workers, community service workers and police officers
	3 In-person low-skill workers such as waiters, bus drivers, elementary sales and service workers
Vulnerable occupations	1 Advanced skills such as skilled tradespersons
	2 White-collar clerical such as various clerks, secretarial and word-processing jobs
	3 Blue-collar operative such as machine operators
	4 Manual low skill, including production assemblers and process workers

Source: Shah and Burke (2003)

In terms of the implications for the VET sector of these developments, as the service sector increases its share of the economy, skills associated with traditional VET training, motor skills, may shrink in demand by comparison to the increased need for skills in the service sector, the cognitive/interactive skills. The VET training system will have to accommodate the needs of older workers re-training or up-grading skills for the services sector, as well as training new entrants.

Foundation skills are a prerequisite for obtaining higher skills. Around 4.5 million working-age Australian adults don't have the high level of core language, literacy and numeracy skills they need to support their success at work or further study. Yet, as Skills Australia observes, 'language, literacy and numeracy skills are fundamental to workforce productivity'. Better skills are positively associated with higher levels of training, workplace participation and higher incomes. There is a clear economic and social case for making greater investments in this area.

A poor level of literacy and numeracy is one of the biggest causes of disengagement from the labour market. Most recent data shows that around 60 per cent of unemployed Australians are unlikely to have the necessary foundation skills to successfully complete a Certificate III qualification—a clear risk to their capacity to gain better jobs and better incomes. The inability to read and comprehend operating instructions, safety precautions, equipment and repair manuals or organisation occupational health and safety policies creates a significant workplace and safety hazard.

The 2010-11 Budget addresses this problem by committing $119.2 million towards addressing foundation skills deficits in the workplace and in job seekers, and developing a national strategy to address foundation skills deficits in adults. High levels of core language, literacy and numeracy skills are necessary to develop the interactive and cognitive skills that workplaces will increasingly rely on. The VET sector will need to respond to the demand for the foundation skills training to complement training in higher skills.

The following sources of data, all drawing on the Treasury and Centre of Policy Studies (Monash) modelling, also examine future demand and supply for skills:

- Skills Australia (2010) forecasts demand and supply for total qualifications demand in a year. However, the net addition to Australia's stock of skills will be overstated because an individual reporting completion of two or more qualifications in that year will count more than once. Nevertheless, this data are important for estimating the total demand for qualifications and expected output from the tertiary sector.
- CEET forecasts the net additions to Australia's stock of skills and reports on an individual's highest reported qualification in a year (Shah 2010). This gives a better measure of the skills increase in the workforce over a period.

DEEWR's SkillsInfo Unit was used to cross-check this data (see www.skillsinfo.gov.au).

All the data available point to a general increase in demand for qualifications that exceeds the current and projected supply of qualifications on a trend basis.

The data also show considerable volatility within the overall aggregates as the supply/demand for different levels of qualifications is quite different and important messages are disguised.

Some key messages emerging from the CEET projections (Shah 2010) include:
- Continued growth in both population (2.1 percent up to 2010) and employment (1.4 percent on average) (ABS 2009) over 2010-2025 points to a growing demand for qualifications from both VET and Higher Education.
- While VET qualifications growth has averaged 2 per cent in the past, it is projected to rise to 3 per cent from 2010 to 2025. Current supply growth in public VET is flat.
- Measures of the extent of growth in VET over and above what indicators show for supply suggest that VET supply may be challenged to meet the type and level of demand.
- Australia will require a dramatic increase in diploma completions by 2025, in the order of about 100,000 per year compared with the 29,000 produced currently by the public VET sector.

Limitations in the CEET approach (Shah 2010) include:
- The data cover only publicly funded VET/higher education, limited by the unavailability of data for private supply. Work is in train with CEET to estimate the private provider demands and supply. Robust data will not be available for VET until at least 2013, when NCVER has introduced its new Australian Vocational Education Training Management Information Statistical Standard (AVETMISS) data collections. AVETMISS is a national data standard that ensures the consistent and accurate capture of VET information about students, their courses, units of activity, and qualifications completed. It provides the main mechanism for national reporting of the VET system.
- In general the analysis of past trends is limited to years 2001-2008, which is not sufficient for "robust" trend analyses. This is particularly problematic given the apparently very high growth in diplomas, which contrast with apparent negative trends in Certificates I and II (2001-2008). However, these are for 'highest' qualifications and do not show demand for initial or pathway qualifications.

The Fair Work Australia review of apprentice and trainee wages and conditions may have an impact on the demand for VET training, if it increases the attractiveness of apprenticeships and traineeships. There is also the potential that the duration of apprenticeships may be examined: shorter apprenticeships are likely to increase the numbers of participants in the future.

How well-placed is the system to respond to these trends?

Work organisation, management practices, workplace culture, and leadership are key factors in the capacity of enterprises to apply innovation and increase productivity. Action research is also underway to identify the interventions and training support that contribute to the development of high performing workplaces. The initial results of this research will become available towards the end of 2010.

Research (Karmel 2010) recently undertaken to ascertain how well VET had responded to past shocks identified that there were potential barriers preventing VET from proactively engaging Australia's innovation-based industries. The research recommended:

- Action to ensure VET delivers skills/occupations essential to innovation and productivity growth,
- Capacity building within the VET sector, particularly relating to the VET teaching workforce,
- Increased innovation by VET in workplaces,
- Better planning for likely innovation skills demand.

DEEWR agrees with these findings and, as a result, there is research in progress to more clearly identify the skills and occupations that contribute most towards innovation within an enterprise. This includes examining the role that generic skills (like creativity) play, as well as specific occupational skills (such as marketing). The results of this research will start to become available towards the end of 2010.

How will these trends influence the VET workforce?

Skills Australia (2010) and CEET (Shah 2010) forecast that the VET sector will grow over and above what current indicators suggest for supply outputs. Because, as mentioned above, supply growth in public VET is flat, the forecasts say that VET supply may be challenged to meet the type and level of demand. This will certainly have a marked impact across the VET teaching workforce and the level of funding required if VET is to meet this increased demand. Skills Australia (2010) has made calculations of these possible impacts.

What emerging technological development could significantly alter industry skill needs? How do providers go about planning for, and responding to, demands for new skills arising from technological developments?

While particular technological change is difficult to predict, we know that technological change, in whatever form it might take, is likely to decrease the demand for unskilled labour. That is, many of the tasks that involve low-skilled labour will be replaced with capital. Demand for high-skilled labour, which is generally considered to be complementary input to capital in production is likely to increase as firms seek skilled labour to operate and maintain capital.

In some cases technology will replace replicable skills e.g. the increased uptake of personal digital assistants may lead to a reduction in the demand for personal assistant or secretarial services. However, in some cases technology will enlarge skill sets e.g. electricians will learn a variety of applied technologies to install new and even green technologies.

The turnover of technology implies a constantly changing skills set. Employees will need the ability to gain and shed skill sets as when necessary and VET providers will need to keep up with the demand for, and consider the flexible provision of, training. In some instances, expensive technologies are required for RTOs to effectively teach the technical skills required to use sustainable technologies in particular industries. In these cases, RTOs will need to work innovatively with industry to access the expertise and resources required to deliver high quality training in the use and maintenance of these technologies. The Productivity Commission inquiry could consider ways to promote this innovation.

In terms of the impact of technology on innovation in industry, DEEWR has identified a range of research indicating that, while the label 'innovation skills', is unclear because such skills are industry-specific, technology is nonetheless essential to the training for specific industries (Stanwick & Loveder 2010; Toner 2008; Dalitz forthcoming). With a report due in December 2010, NVCER has been commissioned by DEEWR to explore the way such skills are deployed in innovation (Beddie forthcoming). All of this research highlights the link between knowledge-based skills and the emerging technological developments that they give rise to in workplaces.

Furthermore, a DEEWR-funded Workforce Innovation Program (WIP) project conducted by the Australian Industry Group (AiG) recently found that VET graduates need to be equipped with specific emerging technology skills. It argued that VET students will need to gain capacity in the high level technical skills, and the adaptability and flexibility demanded by industry. This also means developing a capacity in current technologies as well as those emerging over the next five to 10 years, such as advanced energy-related technologies, photonics, nanotechnology and advanced materials through National Training Packages.

Other research supports these findings and underlines the importance of keeping VET up-to-date with new technology, as well as ensuring its greater capacity to teach underlying theory and knowledge (Toner 2010a; 2009).

Are there particular difficulties related to the recruitment or development of practitioners who are able to deliver training in new technologies?

This area does represent a challenge for the VET sector, as those skilled in emerging technologies are generally in high employment demand and may be difficult to attract to deliver training in the VET sector.

For emerging technologies, VET practitioners need to be able to advise on matters such as the feasibility of design options, the materials appropriate to production, and the cost of manufacture (Ryan 2010a), as well as designing and delivering training for the application of these technologies.

Toner (2008) observes, however, a decline in the initial training of such technicians, who used to start out in public sector organisations, such as defence and the utilities, or in private manufacturing.

Toner (2008) also points at a high level of unmet demand for further technical training for experienced workers. He suggests this demand be met by offering short courses to address skills gaps in areas such as technical writing and scientific method, and in specific technologies like cryogenics. This could be a job for the relevant Industry Skills Councils (ISCs) to consider (Ryan 2010a).

Do you anticipate that demand for VET from learners from disadvantaged backgrounds will increase in the next five to ten years? If so, what implications do you think this will have for the VET workforce?

Recent Australian Government initiatives in the 2010 Budget (for example, the foundation skills package and national entitlement to a quality training place), as well as COAG's 'Closing the Gap' targets, are likely to increase the demand for VET from people from disadvantaged backgrounds. These students may require more intensive support, mentoring and targeted assistance. It is important that the VET workforce is capable of relating to students from disadvantaged backgrounds and delivering the support and extra assistance that may be needed, while also providing quality training.

According to the ABS 2007 Adult Literacy and Life Skills Survey, around 40 per cent of employed and 60 per cent of unemployed Australians are unlikely to possess the necessary foundation skills to successfully complete a Certificate III qualification. This equates to an estimated 4.5 million working age Australians who do not have sufficient English language, literacy and numeracy skills to engage fully in education, training and work.
Improving literacy and numeracy skills will be essential to meeting the COAG Skills targets to halve the proportion of 20-64 year olds without qualifications at Certificate III level and double the number of higher qualification completions by 2020. It will also be essential to meet the COAG Closing the Gap targets of halving the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade.

The scale of this issue is already significant for disadvantaged learners. It will be exacerbated by improvements in and the increasing use of technology. The demand for higher skills will lead to increasing demand for VET by disadvantaged learners, and flow on to the VET workforce in respect of both the skills and numbers of VET practitioners required to meet this demand, particularly in the area of support for literacy and numeracy skills.

The Australian Government's Foundation Skills Package commitment of $119.25 million over four years provides for a range of strategic and program measures in support of an over-arching strategy including:

- 140,000 training places over the next four years; and
- a range of initiatives to address current adult foundation skills capacity constraints in the National Training System.

The Government's national statement on social inclusion, *A Stronger, Fairer Australia* sets out a new approach to break down the barriers between the most disadvantaged Australians and participation. Developing programs for increasing participation by these groups will imply an increased demand for VET training in these areas.

Disadvantaged learners are also likely to require greater levels of support to transition from training into employment. Mentoring will therefore be a key role, and this raises the question of whether this class of VET practitioners should be seen as attached to the training provider, the prospective employer, or both. While mentors can be expected to have a role in preparing and supporting disadvantaged learners' transition into employment and the requirements of the workplace, they can also be expected to have a role in preparing and supporting employers and others in the workplace in terms of the special needs of some disadvantaged learners.
Again, VET Practitioners may require additional skills to effectively undertake these roles.

What implications might a trend towards higher level qualifications have for demand for VET, and the VET workforce?

VET practitioners must have qualifications commensurate with those they are delivering, and therefore a greater trend towards higher qualifications will require an increased number of higher skills in VET practitioners. It is also likely that there will be increasing requirements for teaching and academic qualifications at bachelor degree and above, in addition to skills as a practitioner in the occupations, particularly where higher level VET qualifications act as a pathway into university. This may lead to a situation where higher education standards and benchmarks for teaching may increasingly frame a 'tertiary sector'.

NCVER research identifies as a possible weakness in the VET system an increasing bias towards lower skilled occupations instead of those of the higher skilled sector. This has ramifications for VET's response to structural change in the labour market (Karmel 2010). The research shows that VET has more than kept up with growth in the lower skill level occupations, while VET trades occupations qualifications growth has been static. In fact, VET is being supplanted by higher education in the higher level qualifications, namely, managers and administrators, professionals, and associate professionals, although overall growth is forecast for both sectors.

Table 5: Qualifications requirements among the employed population by major occupation group, Australia, total 2010–25 (%)

	Occupation group								
Highest non-school qualification	Managers	Prof	Tech & trades	Community & personal services	Clerical & admin	Sales	Machine operators & drivers	Labourers	All
	All								
Higher education	**32.4**	**70.4**	**16.2**	**11.2**	**26.4**	**38.1**	**30.7**	**21.7**	**34.9**
VET	**67.6**	**29.6**	**83.8**	**88.8**	**73.6**	**61.9**	**69.3**	**78.3**	**65.1**
Adv diploma[a]	*1.4*	*4.9*	*6.5*	*5.4*	*7.0*	*9.6*	*2.8*	*2.5*	*5.1*
Diploma	*40.4*	*14.5*	*13.4*	*25.3*	*15.9*	*9.6*	*8.2*	*41.9*	*20.9*
Certificate IV	*13.6*	*5.9*	*19.8*	*21.4*	*13.5*	*10.7*	*33.9*	*7.2*	*14.1*
Certificate III	*9.8*	*3.8*	*31.0*	*34.8*	*32.2*	*26.4*	*13.7*	*18.3*	*20.1*
Certificate II	*2.2*	*0.5*	*12.6*	*1.7*	*4.6*	*4.9*	*10.3*	*8.0*	*4.6*
Certificate I	*0.2*	*0.0*	*0.5*	*0.2*	*0.4*	*0.7*	*0.4*	*0.5*	*0.3*
All	100	100	100	100	100	100	100	100	100
All ('000)	1,111	1,575	945	912	951	822	425	505	7,246

Note: Rows and columns may not add to the total due to rounding. a. Includes associate degree.
Source: Shah,C 2010, *Demand for qualifications and the future labour market in Australia 2010 to 2025*. (CEET)

Despite the increasing use of VET and higher education, there still remain a number of employed people who do not hold a qualification, although the prevalence of this differs from occupation to occupation. For example, in 2008, 36.5 percent of managers, 38 percent of community and personal services workers, and 50 percent of clerical and administrative workers did not hold a qualification (Shah 2010).

The disciplines taught in VET may change focus particularly in response to increasing requirements for regulation of entry to these occupations, e.g.: finance occupations in response to the GFC; new health specialisations; and early childhood and aged care occupations, which will experience ongoing skills deepening.

What implications might other shifts in delivery, in particular towards more RPL and RCC, have for the VET workforce?

Recognition of prior learning (RPL) is a formal process to provide people with an opportunity to have the skills and knowledge they have developed outside the formal education system assessed and valued against national qualifications. This can be done because the formal vocational

education and training system is competency-based and reflects the fact that individuals learn in many ways and have different rates of achievement.

Recognition of the skills acquired through non-formal or informal learning is important for a number of reasons. It encourages individuals to continue to upgrade their skills and knowledge, often leading to formal qualifications and improved employment outcomes. Learners can complete training in less time, and training costs, time and effort can be reduced, meaning that employers can have skilled workers more quickly. Individuals can correctly identify their existing competencies and identify the gap training and up-skilling needed to obtain formal qualifications. The RPL process also ensures that the VET system does not need to provide training for knowledge and skills already held.

RPL processes have been significantly streamlined and simplified, following a recently completed three-year COAG initiative to remove the impediments and blockages to the take-up of RPL. States and territories now have sustainable systems in place that embed contemporary RPL approaches into the national training system. The anticipated increased use of RPL will reinforce the importance of skilled assessors who can confidently make RPL professional judgements.

Streamlined RPL processes can be used to recognise peoples' skills, and to facilitate workforce mobility in the current economic climate and improve their job readiness for the future. Areas of skills shortages, for example in the resources and construction sectors, can take advantage of RPL opportunities to fast track new entrants to the industry, and recognise those already working but not formally credentialed, to assist them progress toward full trade status.

The anticipated increased use of RPL will reinforce the importance of trained and skilled assessors who can confidently make RPL professional judgements, so that industry will have confidence in the assessment outcomes.

VET Practitioners are also increasingly being asked to deliver and assess E-learning. The National Quality Council recently highlighted the need for professional development of Practitioners in this area.

What other key effects do you anticipate that government policy will have on the VET sector and the workforce in particular, over the next five to ten years?

A focus on higher level skills to increase productivity, meet the demands of the introduction of new technologies and also improve employability and earnings of the workforce, will put pressure on the VET sector in general and on the VET workforce in particular to up-skill to meet the labour market's demands. It will also require more training places, increased workplace training, training of more practitioners and up-skilling of the current teaching workforce. It will necessitate governments working in partnership with the sector to create a system that will meet demand.

The quality of the VET system is underpinned by three key pillars: the Australian Quality Training Framework (AQTF), which is a set of standards against which training providers are regulated; the Australian Qualifications Framework (AQF), a framework of nationally endorsed qualifications across the senior secondary, VET and Higher Education sectors; and training packages, which contain industry developed and approved VET qualifications.

The Australian Qualifications Framework (AQF) Council is reviewing the AQF to underpin quality assurance arrangements into the future, and will provide advice to Ministerial Council for Tertiary Education and Employment (MCTEE) later in 2010. The Council proposes a new ten-

level structure of qualifications, which would replace the current sector-based framework of qualifications, and associated policies which aim to ensure consistency and transparency of qualifications and facilitate pathways between qualifications.

Acknowledging a predicted shortfall in individuals with VET qualifications by 2016 of 240,000, and Skills Australia's estimate that by 2025 4.6 million additional qualifications will be needed due to employment growth, the Government has invested in initiatives that will have a sustainable impact on the sector and increase the uptake of VET qualifications.

In the 2010-11 Budget, the Skills for Sustainable Growth strategy initiates much needed structural reform in vocational education. It invests directly in more places for students in the VET sector, with a strong focus on quality and transparency.

The Quality Skills Incentive, part of the Skills for Sustainable Growth strategy, is a direct Commonwealth investment in the training sector, which will drive higher standards and performance in teaching quality, higher completion rates for modules and qualifications and better access for disadvantaged Australians. It is open to the 100 RTOs with the largest number of enrolments, which deliver approximately 95 per cent of publicly funded training in Australia.

COAG has agreed to the establishment of a National VET Regulator (NVR), which will play a key role in the development of the Quality Skill Incentive's benchmarking and performance structure. It will replace the state and territory regulators in all states except Western Australia and Victoria, and be responsible for the registration and audit of RTOs.

A *MySkills* web-based database, linked to the National VET Regulator, will be established to empower unemployed people and workers to choose training options and pathways that best match their needs and circumstances. Funding of $4.1 million will be invested to create the website, which, commencing in 2012, will provide information about vocational institutes and colleges including student pathways, satisfaction and competencies; employer satisfaction and engagement; levels of commencements and completions; community and social engagement; and the type of training available. The initial focus will be on providing information on the training options in publicly funded RTOs. The *MySkills* website will assist students to construct pathways to work, enable more Australians to improve their skills through the training system and boost the broader public accountability of the training sector.

COAG has also agreed to the formation of a national Standards Council to set standards for VET providers, including standards for registration, quality assurance and the accreditation of courses. Strengthened AQTF conditions and standards for registration of training providers came into effect on 1 July 2010.

In addition, the implementation of VET FEE-HELP is intended to assist students undertaking VET diploma, advanced diploma, graduate certificate and graduate diploma courses to pay for all or part of their tuition costs. This will have an impact on the demand for VET training places. VET providers offering diploma or advanced diploma courses are required to have an approved credit transfer arrangement to a bachelor degree with a higher education provider. This will also facilitate pathways into higher education.

The 2009-10 and 2010-11 Federal Budgets also reflected a strongly emerging focus by the Australian Government on adult foundation skills as the basis for successful participation in other education, training and work. This focus could be expected to intensify the need for adult language, literacy and numeracy (LLN) specialists and enhanced LLN knowledge and skills in the mainstream VET workforce.

Other recent Australian Government initiatives with implications for the VET workforce include the roll out of Commonwealth funded Trade Training Centres in Schools and the National Partnership on Youth Attainment and Transitions.

Initiatives announced in the 2010-11 Federal Budget will place further demands on VET and the VET workforce. The initiatives included an increased investment in additional training places, particularly in sectors facing high skills demands, new apprenticeship commencements, an offer to the States and Territories to provide a guaranteed entitlement to a training place for all Australians under the age of 25 years, and adult literacy and numeracy courses for up to 140,000 Australians.

The National Broadband Network (NBN) will require 20,000 to 30,000 skilled technical and professional staff over the eight year roll out period, with the largest number of people required in field construction for the fibre cable deployment rather than technology specialists. This is likely to lead to demand for re-skilling of people as well as up-skilling of copper network engineers to fibre.

COAG's Closing the Gap commitments to halve the employment gap by 2018 and halve the Year 12 attainment gap by 2020, as well as the Government's Indigenous Economic Development Strategy, will maximise attention on increasing Indigenous employment levels, particularly through engaging the not in the labour force group in employment, and assisting young people to make the transition from school to further study or employment. Increasing the aspirations of Indigenous people to enter the workforce (including the VET workforce) will be an important aspect of implementing these policies.

The impact of these initiatives on the VET sector will translate into raising the quality, equity, consistency and flexibility of training in the sector and consequently, the VET workforce.

What impacts do you anticipate that the use of technology in the VET sector will have on teaching delivery and methods over the next five to ten years, demand for training, particularly from regional/remote areas and overseas, and demand for the VET workforce, both in terms of numbers, and of knowledge and skills requirements?

This question assumes universal access to relevant technology, which is not currently the case.

It is anticipated that demand for training in regional/remote areas will increase in line with increased availability of technology, particularly with the roll out of the National Broadband Network, as the requirement to be away from home for training decreases. Further, the use of technology to meet this demand, and in the delivery of training more generally, will affect delivery methods and the skill sets of the VET workforce. While some VET practitioners are already using technology in an innovative and effective way, many will be required to adapt their training delivery methodology and expand their knowledge to be able to use technology for the delivery of training. This may be particularly the case where VET practitioners are delivering to disadvantaged learners who may face additional barriers when utilising new technological forms.

An increase in availability of online learning may attract a greater number of students wishing to combine study with work, and will increase the capacity of the sector to deliver training to regional and remote areas. Integrating the use of ICT into VET learning will ensure higher rates of ICT literacy in those acquiring VET qualifications, with flow-on effects to the workforce.

A focus on technology and integration of ICT into the curriculum will necessitate a greater need for ICT-related professional learning and development opportunities for VET educators.

Are training packages still appropriate as a basis for designing vocational training arrangements? Is a shift away from competency-based training at higher qualification level desirable? Might it happen in the next five to ten years? If so, what implications, if any might this have for demand for the VET workforce?

A Policy Framework for VET

A Joint Steering Committee (JSC) of the National Quality Council (NQC) and Council of Australian Government's (COAG) Skills and Workforce Development Sub-Group was established in 2008 to develop a policy framework to better enable VET qualifications and products to:

- meet the needs of businesses and industry; and
- equip individuals with broadly based skills and knowledge.

To enable these outcomes, the JSC's role was to:

- provide strategic oversight and guidance of a consultation project to determine any changes necessary to the definition and design of units of competency, Training Packages, VET qualifications, accredited courses, credit systems, and recognition arrangements within and between systems, to ensure that the VET sector is able to meet a more demand and client-driven system;
- report to the NQC and the COAG Skills and Workforce Development Subgroup on the outcomes of the consultation, and provide recommendations; and
- facilitate dialogue and collaboration between bodies undertaking work in relation to the VET sector including the NQC, COAG, the Australian Qualifications Framework Council (AQFC) and Skills Australia.

Extensive national consultations with VET stakeholders signaled unanimous support for one single national system, with industry-determined outcomes relevant to work, reflected in nationally portable qualifications.

The project's final report highlighted the systemic desire to preserve and protect these aspects, and found that industry leadership is believed to be fundamental to the achievement of VET objectives. There remains consensus and ongoing support for industry to continue to identify and determine the skills, knowledge and standards required for the development and assessment of 'workplace competence'.

The development of relationships between employers and providers is seen to be an important strategy for ensuring currency and involvement. It is also seen as a key to providing a system that is responsive to the needs of the labour market. In order to implement the proposed recommendations the report suggested that a much stronger focus on the VET workforce's professional practice and building of professional networks will be needed to understand and realise change.

<u>'Fitness for Purpose' of Training Packages:</u>

The Committee's final report made a series of 21 recommendations, three of which have a direct impact on the construct of nationally endorsed training packages. Under the VET Products for the 21st Century banner, significant work is being undertaken by ISCs, with guidance from the National Quality Council, to address some of the report's recommendations:

- A full review of packaging rules to ensure maximum flexibility and consistency within and across training packages and accredited courses; and
- A restructure and streamlining of training packages to simplify their useability, including separating performance standards from guidance and supporting implementation advice.

A further recommendation to revise the definition of competency has not been progressed to date.

Toner (2010a) draws on Misko's (2010b) research to suggest that it may now be timely to develop new directions for training packages, which acknowledge the move from motor skills to cognitive and social skills, to more specific occupation skills, and the need to provide a platform for a dynamically changing workplace and economy.

In general, the current VET system does have the capacity to respond to industry requirements and new trends. Specific examples include using already-established units of competency and associated training resources to develop short courses (Misko 2010a) to address emerging skills needs. Another solution may be developing a skill set comprising specific units of competency such as technical writing (Misko 2010a) and making them available across all relevant Training Packages.

Other research looking primarily at curriculum and training package development shows that, in Australia's system, ISCs should be positioned to ensure that both initial and continuing training are offered in a way that takes account of the innovative potential of VET-trained workers (Deitmer & Ruth, in Ryan 2010a).

What other economic factors or trends should be considered when examining future demand for VET? How do you expect these trends to influence demand for the VET workforce?

The growth of the Asian ecomonies, particularly China and India, will continue to underpin the growth of Australia's resources sector. The sector could be facing shortages of 20,000 trades people in construction and operations over the next five years. Trades likely to be most in demand include fabrication and electrical trades[8] DEEWR Skillsinfo data indicates that about 35 percent of resources sector employees do not have formal qualifications.

Consideration could be given to the development of China, India, Latin America and Africa and the impact this will have on manufacturing in Australia, as well as Australia's continued development into a service economy which will require the continued up-skilling of workers at a faster and faster pace.

The transition to an environmentally sustainable economy will require many existing workers to obtain new skills for sustainability, which will, in turn, require VET practitioners to develop the knowledge, skills and values for effective delivery and assessment of these skills, including facilitation of learning of skills for sustainability and required learning support. The effective delivery and assessment of industry-relevant skills for sustainability are an important part of this picture. Workers in all occupations will require specific skills and knowledge to improve energy efficiency, reduce waste, conserve water, and develop and implement sustainable technologies and practices. Similarly there is likely to be an increasing focus on making traditional trades and occupations more sustainable by approaching them from the standpoint of environmental

[8] NRSET, 2010, Resourcing the future, discussion paper, pp 39-40.

sustainability. The VET workforce will be responsible for providing these skills to the most of the existing and emerging workforce.

National policy instruments and associated programs are already in place to support a coordinated, cohesive approach to the provision of skills for sustainability. The *Green Skills Agreement, Living Sustainably: The Australian Government's National Action Plan for Education for Sustainability* and the *National VET Sector Sustainability Action Plan* deliver the frameworks and initiatives to drive workforce development and build the capability and capacity of the VET and HE sectors to respond to sustainability.

While greater use of casual or part-time VET teachers sourced from those currently employed in industry may diffuse the latest knowledge to other VET teachers and students, this will only be the case if they have sufficient pedagogical skills and knowledge (Toner 2009; 2008). The increased use of casuals increases the co-ordination and administrative burden of head/permanent teachers. This also restricts time for on-going training through their workforce or within industry programs (Toner 2009; 2008). Separation of teaching and administrative roles can address some of this concern. While the use of casual staff facilitates easy mobility between industry and teaching, it is important to ensure there is support for casual staff to undertake professional development in their teaching role.

Toner (2010a) also notes that one consequence of the time constraints and the rise of many intermediary organisations, such as the industry skills advisory bodies at a state and national level is that the capacity and incentive for VET teachers to actively network with business is reduced. Networking was also a major function of Curriculum Development Centres at the core of most TAFE systems in the recent past.

The business cycle is a key economic factor that can influence the demand for the VET workforce. As noted on page 21 of the issues paper, industry can have both short and longer term influences on the capacity of the VET workforce, through the business cycle and through the longer term link between current students and future teachers.

In the course of a business cycle, there can be varying degrees of competition for workers between industry and the VET sector. During a 'boom', expanding industries pay higher wages to lure additional workers. This may change the pay relativities between VET workers and their industry counterparts, making VET a less appealing option. Alternatively, during an economic slowdown, workers may be shed from industry and find VET teaching a more stable option.

In addition, demand for VET (and higher education) places is likely to increase during an economic slowdown as people re-evaluate their job search prospects. For example, some existing unemployed are likely to become discouraged job seekers if the difficulty of finding suitable employment is seen to be increasing, with education now becoming a more attractive alternative. Similarly, those who become unemployed because of an economic slowdown may take the opportunity to pursue further education if they cannot/do not want to find a replacement job. The greater demand for VET places will therefore put greater demand on the VET workforce and on the resources of the sector more broadly.

Comments on Chapter 5: Supply of the VET Workforce
What are the demographic challenges emerging around the supply of VET workers over the next five to ten years? How might these challenges affect the VET sector's capacity to attract the right number and mix of suitably qualified workers?

As the VET workforce ages, many VET practitioners are expected to retire from the workforce over the next decade, requiring the recruitment of new teachers. This will pose challenges in attracting people to fill the positions in an environment of expanding labour force demand.

A particular challenge over the next few years may be in recruiting VET teachers from the trades areas, as these skills will be in high demand and potential teachers could earn more working in the industry than they can teaching. However, strategies to attract older tradespeople into a career change away from the physical demands of the trade and into teaching may effective. More broadly than the trades, better workforce development strategies, better careers, improved working conditions, and greater recognition of the value and professionalism of VET practitioners may be effective in attracting and maintaining the VET workforce.

In the Commission's own words, VET teachers require a mix of industry knowledge and educational skills and these skills should "be maintained and, in some instances, enhanced over time". This will require consideration of better ways to attract and retain a younger cohort of VET teachers and fashion flexible approaches to up-skilling, re-skilling and maintaining industry currency for VET practitioners to accommodate teachers of all ages and backgrounds.

Another demographic challenge emerging around the supply of VET workers will be a shortage of Indigenous VET workers, compared to an estimated 139 000 young Indigenous people who will be leaving school between 2008 and 2018. The needs of remote Indigenous Australians also present unique demographic challenges.

Shedding more light on recruitment issues in the VET sector, in November 2009, DEEWR surveyed government and non government providers of vocational education and training to assess their experience recruiting Vocational Education Teachers.

The survey results suggested that recruitment difficulties are evident in this labour market but that the recruitment experience of employers varies considerably across teaching areas. Turnover of Vocational Education Teachers was indicated as a significant factor in the need to recruit (noted by almost half the survey respondents). The main reason teachers leave their employment is to take up non-teaching positions (50 per cent of respondents),

The main findings of the survey were that:

- 80 per cent of respondents had tried to recruit Vocational Education Teachers in the six months prior to the survey.
- 75 per cent of respondents who had recruited reported that they had experienced difficulty, and 60 per cent of respondents who had not actively tried to recruit believed recruitment would be difficult.
- Recruitment difficulty was most evident for teachers in Automotive (72 per cent of those who had undertaken recruitment action), Electro-technology and Communications (69 per cent), Agriculture and Horticulture (63 per cent), Engineering (57 per cent) and Construction (52 per cent).

- The least difficult recruiting was reported by employers seeking Vocational Education Teachers for Sport and Recreation, with just 30 per cent of those recruiting experiencing difficulty, followed by Hairdressing and Beauty (31 per cent). For Mining and Manufacturing, and Information and Communication Technology, 33 per cent of respondents who had recruited experienced difficulty.
- Generally, the skill areas for which recruitment of Vocational Education Teachers was most difficult correspond to shortages in the general labour market identified through DEEWR skill shortage research. It is notable, though, that some of the least difficult to fill skill areas are also in shortage in the general labour market, for example Hairdressing and Mining and Manufacturing.
- Overall, employers considered a lack of suitable applicants as the principal reason for recruitment difficulty, with more than two thirds of respondents noting this as a reason. Around half the respondents also suggested that specialist skill needs, high levels of industry demand and relatively low pay were factors making recruitment of Vocational Education Teachers difficult.
- The vast majority of respondents (87 per cent) indicated they expect to recruit for Vocational Education Teachers in 2010. Respondents also suggest they anticipate recruitment will continue to be difficult, with more than three quarters expecting it will be difficult to fill future vacancies.
- The reasons respondents expect future recruitment to be difficult are similar to those for recent difficulties although a slightly lower proportion (73 per cent compared with 78 per cent) noted lack of suitable applicants as a reason, and a slightly lower proportion (45 per cent compared with 51 per cent) considered industry demand as a contributing factor. 'Conditions' was not defined but was intended to refer to conditions other than pay and hours, such as basis of employment, tenure and working environment.

Australian Bureau of Statistics figures from the Survey of Education and Work show slightly more than half of Vocational Education Teachers hold a Bachelor degree or higher qualification, about half of whom hold Postgraduate qualifications. In addition, almost two in five workers hold Diploma/Advanced Diploma or Certificate III/IV level qualifications. Respondents to DEEWR's survey, however, indicated that they required the following qualifications and experience.

Table 6: Qualifications/Experience Sought by VET Sector Employers, DEEWR, 2009

Qualification/Experience sought (multiple responses were allowed)	**% of Employers Requiring Qualification**
Certificate III or IV in Training and Assessment	90.9%
Trade Experience	48.2%
Advanced Diploma or Diploma	37.3%
Certificate III or IV	30.9%
Bachelor Degree	26.4%
Post Graduate Degree	13.6%
Certificate II or III	9.1%

The full report of DEEWR's research into VET teachers is published at www.deewr.gov.au/skillshortages, under 'publications'.

What are the key pathways into and out of the VET workforce? Do these vary for different groups in the workforce, for example, by provider type, job role or area of discipline?

There are significant differences in the teaching qualification requirements for different subjects in VET. English for Speakers of Other Languages (ESOL) requires a minimum of a major in ESOL plus a post-graduate Diploma in ESOL, which is a significant amount of pedagogical training. The teaching requirement for trades/technical skills is much lower at a Training and Assessment (TAA) Certificate 4 (Ryan 2010b).

The National Quality Council has determined that all trainers and assessors must hold the Training and Education (TAE) Certificate IV or equivalent competencies. This includes trainers and assessors with degrees or vocational qualifications in their chosen field. However, numerous educationalists both within VET and broader academe have commented on the adverse effects of introducing a TAA Certificate IV (now superseded by the TAE Certificate IV) as the basic educational qualification for TAFE teachers (Ryan 2010a).

Pay and Conditions

The WAD includes data about wage increases included in collective agreements, but does not contain details about actual rates of pay. These increases, expressed as percentages, are summed together (compounding if appropriate) and divided by the duration of the agreement (in years) to calculate the average annualised wage increase (AAWI). Aggregate AAWI figures are calculated on a per-employee basis, i.e. by weighting the average by the number of employees covered by the AAWI for each agreement.

The aggregate AAWI for the current VET agreements was 4.1 per cent, which was the same as the aggregate AAWI for all current agreements. The aggregate AAWI for private sector VET agreements of 5.3 per cent was considerably higher than both the AAWI for public sector VET agreements and the AAWI for all agreements in the private sector.

Table 7: VET sector agreements, average annualised wage increases, by sector (public/private)

	VET industry			All agreements		
	Quantifiable agreements (%)	Employees covered by quantifiable agreements (%)	AAWI (%)	Quantifiable agreements (%)	Employees covered by quantifiable agreements (%)	AAWI (%)
Public	92.0	96.8	4.0	86.2	90.1	4.2
Private	61.5	94.0	5.3	48.5	54.7	4.0
All	81.6	96.5	4.1	49.5	62.2	4.1

Only agreements with quantifiable wage increases are considered when calculating any aggregate AAWI data, as not all agreements contained wage increases that can be quantified in percentage terms. Of the 38 current VET agreements, 31 (81.6 percent), covering 18 130 employees (96.5 percent) had quantifiable wage increases. By comparison, just 49.5 percent of all agreements had quantifiable wage increases, covering 62.2 percent of all employees. This indicates that agreements made in the VET industry are much more likely than the average to

include across the board, percentage-based wage increases that apply equally to all employees under the collective agreement.

Overall, 7.9 per cent of VET agreements contained a performance/productivity payment clause, which is comparable to the 7.3 per cent of all agreements that contained such a clause.

However, when disaggregated by public/private sector, the data is less comparable. None of the public sector VET agreements contained a clause that allowed for bonus payments based upon productivity or performance measures while three of the thirteen private sector VET agreements (23.1 per cent) contained a clause of this nature.

Table 8: VET sector agreements, proportion with performance pay, by sector (public/private)

	VET industry		All agreements	
	Agreements with performance pay	% Agreements with performance pay	Agreements with performance pay	% Agreements with performance pay
Public	0	0.0%	95	15.4%
Private	3	23.1%	1508	7.0%
All	3	7.9%	1603	7.3%

Presented below are data provisions in agreements related to hours of work, superannuation contributions and annual leave clauses in agreements.

Just one VET agreement, a private sector agreement, contained a clause requiring employer superannuation contributions of more than 9 per cent of earnings (i.e. more than the superannuation guarantee level). This equates to 2.6 per cent of VET agreements containing a clause of this nature, which is comparable to the 2.9 per cent of all current agreements that contain a clause of this nature.

The average hours of work for full-time employees in agreements in the VET industry is 37.9 hours per week. This is the same as the average hours of work contained in all agreements. VET agreements provide an average of 4 weeks annual leave per year; which is also the same as the average for all agreements.

Table 9: VET sector agreements, superannuation, average weekly hours & average weeks annual leave, by sector (public/private)

	VET industry			All agreements		
	Agreements with greater than 9% super	Average weekly hours of work	Average weeks annual leave per year	Agreements with greater than 9% super	Average weekly hours of work	Average weeks annual leave per year
Public	0.0%	38.0	4.0	14.3%	37.8	4.1
Private	7.7%	37.5	4.1	2.6%	37.9	4.0
All	2.6%	37.9	4.0	2.9%	37.9	4.0

The WAD contains data about a wide variety of conditions of employment that may be contained in collective agreements. The Department is able to provide further data about particular conditions of employment contained in VET industry collective agreements upon request.

How do remuneration and hours of work in VET compare with those of relevant industry or occupation benchmarks? How important are these factors to the decision to enter or remain in the VET workforce? Does the importance of pay and conditions vary for different groups within the workforce?

The comparability of remuneration in the VET sector varies depending on the area of delivery, as VET-taught occupations have a wide variability of remuneration.

Research criticises the status of VET teachers compared to their higher education colleagues. VET in general, and TAFE in particular, are not viewed as obvious career choices for highly skilled professionals and para-professionals (Toner 2010a; 2010b). In this research, Toner is critical of the VET systems as follows:

- The problem with improving the quality of the VET workforce is that it will impose significant costs on the public sector and possibly raise the hourly rate that TAFE charges to run courses. This is potentially a significant problem because, when a higher percentage of public VET dollars are open to competition from private RTOs, the capacity of TAFE to compete for such funds is reduced. The costs of improving the quality of VET teaching and infrastructure must be born equally between private and public providers.
- The lack of non-management career paths within VET Institutions is similar to other technical labour markets (e.g., R&D technicians) (Toner 2010b). This is arguably another factor in making it more difficult to attract and retain skilled staff. The decline in Education Officer and Senior Education Officer positions in TAFE in areas such as curriculum development has effectively put a ceiling on those who wish to progress but not necessarily through abandoning teaching and their technology discipline.

Toner (2010a) says that what constitutes a competitive salary structure needs to be re-examined to attract new blood to the teaching workforce for these positions. However, while the issues of pay and access to professional development are clearly important, they are not the only factor in attracting and retaining skilled teachers. There is a need for initiatives which enable a genuine rotation of staff out of the broader economy and into VET, while also raising the knowledge of all VET staff of teaching practice (Toner 2010a; 2010b).

The table below provides a summary of wages and hours of work provisions for qualified hairdressers, electricians, cooks and vehicle mechanics under the relevant modern awards, as compared to the basic VET teacher classification in the Educational Services (Post-Secondary Education) Award 2010.

Overall, the analysis indicates that wages and hours of work arrangements for VET teachers compare favourably to relevant modern award benchmarks for qualified tradespersons. This would indicate that on the basis of provisions for minimum wage rates and working hours in modern awards, it would be an attractive proposition for tradespeople to move into VET teaching positions.

For example, the basic Teacher classification, applicable to VET teachers, in the Educational Services (Post-Secondary Education) Award 2010 provides a base weekly salary of $746.58, as compared with qualified hairdressers, electricians, cooks and vehicle mechanics, who receive a base weekly salary of $636.60.

The same scenario exists for casual employees, with a VET teacher receiving an hourly rate of pay, inclusive of a casual loading of 25 percent, of $37.29, as compared to the trade equivalents, who receive a casual hourly wage rate of $21.82.

It should be noted, however, that it may not be the case that a position as a VET teacher compares favourably in a situation where tradespeople are in high demand or where they are working in 'booming' industries, such as mining, requiring trades skills in remote areas. In such cases, well above-award wages may apply, making VET teaching positions far less attractive to tradespeople.

Table 10: Vocation Education and Training sector / trade qualified wages and conditions comparison

Modern Award	Weekly Wage Full Time	Casual Wage Per Hour	Highest Weekly Wage	Ordinary and span of Hours	Annual Leave
Educational Services (Post-Secondary Education) Award 2010 VET Teacher	$746.58 Teacher Level 1 Category D Annual salary / 52.14 ($38926.78 / 52.14)	$37.29 Teacher Level 1 Category D Daily rate: Annual salary divided by 261 plus 25% ($38926.78 / 261 + 25% = $186.43) Hourly rate: Daily casual rate divided by 5 ($186.43 / 5 = $37.29)	$901.46 Teacher Level 9 Category D Annual salary / 52.14 ($47002.18 / 52.14)	38 hours per week. Hours may be averaged over 12 months or period of employment	NES plus a leave loading - 17.5%
Hair and Beauty Industry Award 2010 Hair Dresser	$663.60 Hair and beauty employee - Level 3 Weekly wage rate provided in award	$21.82 Hair and beauty employee -Level 3 Includes a 25% casual loading	$696.00 Hair and beauty employee - Level 5 Weekly wage rate provided in award	38 hours per week. Monday to Friday 7.00 am–9.00 pm Saturday 7.00 am–6.00 pm Sunday 10.00 am–5.00 pm	NES plus a leave loading - 17.5%
Electrical, Electronic and Communications Contracting Award 2010 Electrician	$663.60 Electrical worker Grade 5 Weekly wage rate provided in award	$21.82 Electrical worker Grade 5 Includes a 25% casual loading.	$838.90 Electrical worker Grade 10 Weekly wage rate provided in award.	38 hours per week. Monday to Friday 6.00 am to 6.00 pm	NES plus a leave loading - 17.5%
Restaurant Industry Award 2010 Cook	$663.60 Cook Level 4 grade 3 Weekly wage rate provided in award	$21.82 Cook Level 4 grade 3 Includes a 25% casual loading	$724.20 Cook Level 6 grade 5 Weekly wage rate provided in award	38 hours per week A minimum of six hours and a maximum of 11 and a half hours may be worked on any one day	NES plus a leave loading - 17.5%
Vehicle Manufacturing, Repair, Services and Retail Award 2010 Mechanic	$663.60 Vehicle industry RS&R—tradesperson or equivalent Level I (R6) weekly wage rate provided in award	$21.82 Vehicle industry RS&R—tradesperson or equivalent Level I (R6) Includes a 25% casual loading	$663.60 Vehicle industry RS&R—tradesperson or equivalent Level 2 & 3 classifications exist in award but do not attract higher pay rates Weekly wage rate provided in award	38 hours per week Averaged over not more than five days in any week	NES plus a leave loading - 17.5%
Note: Wage rates shown above are as at 1 July 2010.					

How do remuneration and hours of work in VET compare with those of relevant industry or occupation benchmarks? How important are these factors to the decision to enter or remain in the VET workforce? Does the importance of pay and conditions vary for different groups within the workforce?

With regard to the ANZSIC 2006 industry classification, the VET sector is contained within the 'Technical and vocational education and training' 4 digit industry class (ANZSIC 8101). This industry class sits within the 'Tertiary education' 3 digit industry group (ANZSIC 810) which also includes the 'Higher education' industry class (ANZSIC 8102). Attachment A provides further details of the ANZSIC classification for the Tertiary education (81) sub-industry.

Most ABS data, however, are either not published and/or not collected down to the 4 digit level of detail. In particular, labour force data are only available down to the 3 digit industry group level. The data presented below are either those publicly available or unpublished data at the lowest level of disaggregation currently possessed by DEEWR. Our submission indicates where more detailed data are available for purchase from the ABS.

Unpublished earnings data for employees in the VET sector are available from the ABS' biennial *Employee Earnings and Hours* (EEH) survey. The latest data are for August 2008.

The table below shows that full-time adult non-managerial employees in ANZSIC 81 – Tertiary education (which includes ANZSIC 8101 – Technical and vocational education and training) had average hourly ordinary time earnings (AHOTE) of $35.10 compared with an average of $29.70 across all industries, while part-time adult non-managerial employees in Tertiary education had AHOTE of $35.70 compared with an average of $24.70 across all industries in August 2008.[9]

EEH earnings data for the Technical and vocational education and training sub-industry are available for purchase from the ABS (subject to confidentiality restrictions) as a special data request. DEEWR does not currently have this data.

[9] ABS *Employee Earnings and Hours* (Cat. No. 6306.0), August 2008, unpublished data.

Table 11: Earning by sub-industry by method of setting pay by full-time/part-time status

	Full-time adult AHOTE ($)			
Method of setting pay	**Preschool and school education ANZSIC 80**	**Tertiary Education ANZSIC 81**	**Adult, community and other education ANZSIC 82**	**All industries average**
Award or pay scale only	34.40	16.70	19.50	19.30
Collective agreement (Federally registered)	31.90	37.10	24.50	30.30
Collective agreement (State registered)	34.10	35.40	np	33.30
Collective agreement (unregistered)	35.20	np	np	34.70
Individual arrangement (Federally registered)	np	29.10	—	29.50
Individual arrangement (State registered)	—	—	—	23.60
Individual arrangement (unregistered)	33.60	37.50	28.40	30.40
Working proprietors	..	..	..	..
All methods of setting pay	**33.50**	**35.10**	**24.80**	**29.70**
	Part-time adult AHOTE ($)			
Method of setting pay	**Preschool and school education ANZSIC 80**	**Tertiary Education ANZSIC 81**	**Adult, community and other education ANZSIC 82**	**All industries average**
Award or pay scale only	22.30	22.40	18.00	20.40
Collective agreement (Federally registered)	29.40	35.30	37.90	24.80
Collective agreement (State registered)	27.20	40.40	np	30.00
Collective agreement (unregistered)	26.30	—	np	28.70
Individual arrangement (Federally registered)	np	np	np	22.30
Individual arrangement (State registered)	—	—	—	26.10
Individual arrangement (unregistered)	28.10	27.50	25.40	26.10
Working proprietors	..	..	..	..
All methods of setting pay	**27.40**	**35.70**	**24.90**	**24.70**

Source: ABS *Employee Earnings and Hours* (Cat. No. 6306.0), August 2008, unpublished data.
Notes:
np = not published.
— = nil or rounded to zero
.. Not applicable

Average hours of work data by industry are obtained from the ABS *Labour Force, Australia, Detailed, Quarterly* (Cat. No. 6291.0.55.003) survey. The latest data are for May 2010.

Labour force data by industry are only available down to the 3 digit industry level. The following average hours of work data relate, therefore, to Tertiary education and not specifically to Technical and vocational education and training.

The average hours worked by full-time employees in Tertiary education stood at 39.5 hours per week (12 month average to May 2010), compared with 42.2 hours per week in Preschool and school education and 40.6 hours per week across all industries.[10]

The average hours worked by part-time employees in Tertiary education stood at 17.1 hours per week (12 month average to May 2010), compared with 19.2 hours per week in Preschool and school education and 17.3 hours per week across all industries.[11]

Another factor that can impact upon the attraction and retention of VET workers is the sessional nature of work. For example, one study found that only around 30% of adult language, literacy and numeracy workers were employed on a permanent basis[12]. This can have profound implications for job security, pay rates, professional development and career opportunities.

Is there any evidence of workers moving between industry and the VET workforce in response to changes in economic conditions?

Previous NCVER research highlights the importance of establishing training partnerships between VET institutions and industry (Callan & Ashworth 2004). Apart from the advantage of generating additional revenue for VET, such alliances can lead to stronger links between industry and VET practitioners, who, in turn, benefit from gaining additional capabilities in their practice (Callan & Ashworth 2004).

Are there tradeoffs between technical skills and teaching skills and, if so, which skills are more important?

Both teaching and technical skills are critical in enhancing the capability of the VET workforce. The AQTF requires that trainers and assessors of nationally recognised training meet nationally agreed competency requirements, including having relevant vocational competencies and demonstrating current industry skills. Trainers and assessors must also continue to update their VET knowledge and skills as well as their industry currency and trainer/assessor competence to ensure that the training and assessment services they provide are in line with industry requirements.

The delivery of skills for sustainability will require VET practitioners to up-skill in both technical skills for sustainability and teaching skills in education for sustainability. Both skill sets are equally important. Research mentioned above shows that technical skills are crucial to meeting industry and consumer demand for sustainable products and services. For example, many practitioners will require technical skills to train trade apprentices to deliver services like water-wise plumbing and irrigation systems, recycled grey water and solar installations.

However, learners also require grounding in education for sustainability to drive the workplace change and innovation required to drive sustainable imperatives. Building the capacity of the VET and higher education sectors to deliver skills and education for sustainability presents a unique opportunity to achieve multiple, positive workforce, educational, and operational outcomes in both sectors at the national level.

[10] ABS *Labour Force, Australia, Detailed, Quarterly* (Cat. No. 6291.0.55.003), May 2010.
[11] ABS *Labour Force, Australia, Detailed, Quarterly* (Cat. No. 6291.0.55.003), May 2010.
[12] NCVER, *Current and Future Professional Development Needs of the Language, Literacy and Numeracy Workforce*, 2001, p. 6. http://www.ncver.edu.au/research/proj/nr4L02.pdf

The technical/teaching skills area has seen a legitimate trade-off in the past history of VET, with the desire to have experienced practitioners seen as more important than teaching skills, at least those reflected in a teaching or academic qualification. This trade-off is not necessarily sustainable in relation to higher qualifications in VET, particularly where students are now paying substantial components of the fee for publicly funded places and in many cases, considerable full fee course and materials costs, equivalent to courses in higher education.

One particularly important component of generalist teaching is that of language, literacy and numeracy (LLN) expertise. Adult LLN skills have been embedded in Training Packages for several years, yet mainstream VET practitioners commonly have no specialist skills in this area. Indeed, there is often little awareness of the scale of LLN issues or capacity to identify students' LLN training needs and provide appropriate support. Given the Australian Government's policy objective to make the embedded LLN in training packages more explicit, and other planned work focussing on raising awareness of adult LLN issues, there is a clear need to enhance the mainstream VET workforce's skills base in this area. This has long-term implications for the quality and effectiveness of VET training, student retention and completion.

Would increasing qualification standards make entry into the VET workforce more appealing and/or more difficult? Would these changes produce better student outcomes?

There is a wide range of views held on this issue and it is being actively debated within the sector.

Views vary from the need for a qualification that does not discourage entry to the teaching workforce by those with technical and industry expertise, through to views that higher level qualifications are needed that include a focus on pedagogy and how to teach.

The existence of such a range of views may point to the need for a range of options for VET teaching qualifications and continuing professional development to cater to the diversity of the VET sector.

Is a workforce development plan needed? How might a plan be developed? What would be its key elements?

Workforce development strategies that drive attitudinal and behavioural change within training organisations - strategies that target both the individual and the organisation - can be influenced by government levers. Rather than trying to impose workforce development on employers, governments could, for example, usefully play a role by helping employers to articulate their skill needs and raising understanding of how workforce development links to business strategy and workplace organisation, leading to a 'bottom line' advantage.

How does the relative remuneration of casuals/sessionals and permanent/fixed-term employees in the VET sector compare?

A breakdown of the earnings of non-managerial employees in the VET sector by casual/permanent status is available from the ABS *Employee Earnings and Hours* survey. The latest data are for August 2008. This data are available for purchase from the ABS as a special data request. DEEWR does not currently have this data.

Comments in relation to Chapter 6 of the Issues Paper: Institutional arrangements

What factors drive multiple job holding among VET workers? What effects does this have on the efficiency and effectiveness of the VET workforce?

One of the anecdotal reasons for the high proportion of VET practitioners employed part-time is that it enables teachers to work in the industry sector part-time and teach part-time, thus ensuring that they are teaching in accordance with current industry practice. There would be benefit in exploring this issue in the paper.

Most current models of VET sector skills for sustainability professional development focus on training Sustainability Champions within RTOs. In many cases, these champions will be responsible for delivering in-house sustainability professional development workshops, primarily for VET practitioners, and providing advice, guidance and mentoring to colleagues around integrating sustainability into training programs and delivery. They will also gain knowledge and skills to review programs to incorporate sustainability and deliver sustainability training to students.

It is expected that Sustainability Champions will need to have these responsibilities formally recognised, either as new roles or as part of existing roles, for them to perform effectively. They also will need to secure release from teaching/duties while undertaking training.

Do you have any other suggestions on ways in which the productivity of the VET workforce might be improved?

The VET workforce is facing serious issues that are likely to challenge its productivity. Research highlights five of them:

- The VET workforce is ageing, meaning that fewer full-time teachers will have had recent direct employment in industry (Toner 2008).
- The VET workforce is facing the imminent retirement of a high proportion of the permanent staff, meaning the loss of experienced teachers and their industry networks (Toner 2008).
- TAFE teachers have a comparatively low status in the education community (Toner 2009; 2008).
- In terms of VET content, its practitioners face knowledge obsolescence both in educational skills and in their vocational discipline and its associated workplace practices. This prevents the VET system and individual practitioners from having a mindset of continuous learning (Toner 2010a).
- Experienced practitioners in the VET system have limited career paths, most likely because of the absence of a systematic approach to VET workforce development. This occurs across the process from initial training to the professional development of teaching/training skills as practitioners' careers progress (Ryan 2010a).

If the successful transition of learners from training into employment is considered a relevant measure of productivity, then the recognition of "Mentoring" as a discrete vocation among those considered to be VET professionals, including appropriate remuneration etc. may improve productivity in this sector.

Are there any other emerging workplace and employment practices with implications for the efficiency and effectiveness of the VET workforce that the Commission should look at? If so,why?

While VET has responded fairly flexibly to industry needs, the proportion of workers in the trades with a qualification has changed little in the period 1997-2008 (Karmel 2010). More research may be required to identify whether this is due to VET supply constraints or just that demand for trade qualifications is static.

What are the advantages and disadvantages of having a range of regulatory approaches for the VET sector?

The decision by COAG in December 2009 to establish a National VET Regulator (NVR) recognises the continuing evolution of the regulation of the VET sector within Australia, and moves towards a nationally consistent application of the regulatory framework.

Commonwealth, state and territory governments of Australia have previously tried to achieve this through the adoption of model clauses and a common regulatory framework – the Australian Qualifications and Training Framework (AQTF). However, governments, students, the sector and industry have expressed ongoing concerns as to whether these measures had achieved national consistency. The introduction of a national regulator in the VET sector will build on current regulatory arrangements and support the labour market and national productivity agendas, by ensuring minimum standards are met across the nation.

A national regulator will also facilitate timely and unified national responses to emerging issues in the VET sector. A recent example of this is the proliferation of state responses to concerns that had been raised about the quality of the provision of VET to international students, which has led to significantly different regulatory approaches being developed in individual states.

The introduction of a national regulator will simplify the regulatory burden for RTOs that operate in more than one jurisdiction and which are currently subjected to differing approaches and additional requirements from different state regulators. National regulation will also ensure that it is straightforward for RTOs to expand their operations across state borders, and will alleviate additional registration processes.

Is the current regulatory framework efficient, fit for purpose and consistent with the principles of competitive neutrality? What about the forthcoming national regulatory framework?

The Australian Quality Training Framework (AQTF) is the national set of standards which assures nationally consistent, high-quality training and assessment services for the clients of Australia's VET system. In December 2009, COAG endorsed amendments to strengthen the regulatory requirements underpinning the AQTF. The amendments strengthen the conditions and standards for initial registration of new training providers entering the market, and conditions and standards for continuing registration of ongoing providers.

The NVR's focus will be on consistent application of the regulatory framework based on the AQTF as recently reviewed. The new NVR will also embrace principles of competitive neutrality that have not been as apparent in state legislation. For example, while presently some states often delegate regulatory functions to TAFE (eg course accreditation), to date this has not been an option available for private providers. It is envisaged that the new NVR will make these kinds of delegations to both public and private providers utilising a consistent risk framework.

Should publicly-funded and privately-funded RTOs face the same minimum standards?

Yes, all RTOs should face the same minimum standards for registration under the AQTF.

Additionally, any RTO which receives government funding must adhere to the contractual requirements of the funding program. Privately funded VET activity does not face these requirements as it is assumed that the purchaser will negotiate conditions with the RTO as part of their business relationship.

In most jurisdictions, some government funding is predominantly made available to publicly owned RTOs (e.g. TAFE), effectively providing guaranteed revenue for these institutions. Most publicly owned RTOs, however, also face some additional restrictions on their operations by virtue of their government ownership. The level of operational independence that TAFE institutes have from their government owners varies in each jurisdiction.

As a result of differences between jurisdictions, the extent to which publicly owned RTOs receive a competitive advantage or disadvantage varies considerably across the National Training System. Australian Government policy seeks to improve competitive neutrality by encouraging states to undertake reforms to give TAFE operational independence and increase the level of competition in their funding programs

What are the likely implications for the VET workforce in different jurisdictions and provider types of a national VET regulator?

Given the National VET Regulator's focus on nationally consistent application, the transition to the NVR should mean that compliance should become simpler for staff who work in referring jurisdictions, for multijurisdictional RTOs, and for RTOs that enrol international students.

Might registration of VET practitioners and/or other professionals have benefits for their professional standing and practice?

This issue has been raised within the sector, but more research and consideration is needed to determine the appropriateness, benefits, and implications of establishing any registration system.

To what extent are industrial instruments aligned to contemporary work practices in the VET sector? Can you foresee a greater role for performance pay in promoting workforce efficiency and effectiveness?

Establishing a link between pay and individual performance can assist with aligning the interests of employers and employees, as well as helping to improve productivity, including in the VET sector.

Given this, improving productivity is a key objective of the *Fair Work Act 2009* (the Act) with productivity growth a major consideration in all major sections of the Act including modern awards, bargaining, minimum wages and transfer of business. The Act has a primary focus on collective agreement making at the enterprise level, designed to promote greater flexibility and deliver higher productivity and leading to higher employment growth over the longer term.

Enterprise level bargaining enables the development of fair and flexible working arrangements that are tailored to suit both the needs of an individual business and the needs of employees. This can benefit both employers and employees through increased flexibility and associated productivity improvements that, in turn, contribute to sustainable economic growth and

prosperity. Importantly, enterprise bargaining can improve wage outcomes for employees either through increased base wages or by the introduction of incentive or bonus schemes.

Research undertaken by Fry, Jarvis and Loundes[13] found that organisations entering into agreements with their workers reported substantially higher levels of self-assessed labour productivity relative to their competitors.

Another study by Tseng and Wooden[14] found that firms where all employees were on enterprise agreements had almost 9 per cent higher levels of productivity than comparable firms where employees relied upon conditions specified in an award.

Studies by the Productivity Commission[15] showed that collective agreement making is good for productivity. Collective agreements allow employees and employers to negotiate working arrangements at the enterprise level that tie wage increases to productivity improvements. History has shown that keeping wage increases in line with productivity improvements helps to contain inflation.

What factors drive the types of employment arrangement adopted by VET providers? Are there systematic differences between public and private providers? If so, why?

As shown in the table below, the vast majority of non-managerial employees in Tertiary Education had their pay set by federally registered collective agreement (63.3 per cent) or state registered collective agreement (16.8 per cent) in August 2008, compared with 29.0 per cent and 13.2 per cent respectively across all industries. Award-reliance was significantly lower in Tertiary Education (11.5 per cent) compared with the all industries average (18.1 per cent).[16]

[13] T Fry, K Jarvis and J Loundes, *Are Pro-Reformers Better Performers?*, Melbourne Institute Working Paper No. 18/02, September 2002.
[14] Y-P Tseng and M Wooden, *Enterprise Bargaining and Productivity: Evidence from the Business Longitudinal Survey*, Melbourne Institute Working Paper No. 8/01, July 2001, page 28
[15] Productivity Commission *Microeconomic Reforms and Australian Productivity: Exploring the Links, Volume 2: Case Studies*, Research Paper, AusInfo, Canberra, 1999,; and A Johnston, D Porter, T Cobbold and R Dolamore, *Productivity in Australia's Wholesale and RetailTrade*, Productivity Commission Staff Research Paper, AusInfo, Canberra, 2000.
[16] ABS *Employee Earnings and Hours* (Cat. No. 6306.0), August 2008, unpublished data.

Table 12: Method of setting pay by sub-industry, non-managerial employees, August 2008

	Number of non-managerial employees ('000)			
Method of setting pay	**Preschool and school education ANZSIC 80**	**Tertiary Education ANZSIC 81**	**Adult, community and other education ANZSIC 82**	**All industries total**
Award or pay scale only	34.7	26.6	7.3	1457.9
Collective agreement (Federally registered)	138.0	146.0	4.0	2335.7
Collective agreement (State registered)	290.5	38.7	np	1065.8
Collective agreement (unregistered)	18.6	np	np	53.2
Individual arrangement (Federally registered)	np	3.2	np	174.3
Individual arrangement (State registered)	—	—	—	0.8
Individual arrangement (unregistered)	28.2	16.1	21.0	2981.2
Working proprietors	..	..	..	..
All methods of setting pay	**510.7**	**230.7**	**33.9**	**8068.1**
	Proportion of non-managerial employees within each sub-industry(%)			
Method of setting pay	**Preschool and school education ANZSIC 80**	**Tertiary Education ANZSIC 81**	**Adult, community and other education ANZSIC 82**	**All industries total**
Award or pay scale only	6.8	11.5	21.4	18.1
Collective agreement (Federally registered)	27.0	63.3	11.9	29.0
Collective agreement (State registered)	56.9	16.8	np	13.2
Collective agreement (unregistered)	3.6	np	np	0.7
Individual arrangement (Federally registered)	np	1.4	np	2.2
Individual arrangement (State registered)	—	—	—	0.0
Individual arrangement (unregistered)	5.5	7.0	61.9	37.0
Working proprietors	..	..	..	..
All methods of setting pay	**100.0**	**100.0**	**100.0**	**100.0**

Source: ABS *Employee Earnings and Hours* (Cat. No. 6306.0), August 2008, unpublished data.
Notes:
np = not published.
— = nil or rounded to zero
.. Not applicable

Methods of setting pay data for the Technical and vocational education and training sub-industry are available for purchase from the ABS (subject to confidentiality restrictions) as a special data request. DEEWR does not currently have this data.

Methods of setting pay data for the Tertiary education industry can theoretically be further broken down by public/private sector. However, issues relating to data reliability (high relative standard errors) are likely to result at this level of disaggregation.

Data from the ABS *Employee Earnings, Benefits and Trade Union Membership* (EEBTUM) publication show that of the 762 300 employees in the broader Education and training industry in August 2009, 19.1 per cent were casuals (employees without paid leave entitlements), compared with 24.4 per cent across all industries.[17]

EEBTUM data are available down to the 3 digit industry level. That is, data on the incidence of casual employment in Tertiary education are available for purchase from the ABS (subject to confidentiality restrictions). DEEWR does not currently have this data.

What effects do each of these forms of employment have on the efficiency and effectiveness of the VET workforce?

As indicated above, the Act has a primary focus on collective agreement making at the enterprise level which is designed to promote greater flexibility and deliver higher productivity.

If the high level of pay setting by agreement making in Tertiary education is representative of the Technical and vocational education and training sub-industry, then there would be scope for significant improvements to productivity to be achieved via bargaining in this industry.

What factors drive multiple job holding among VET workers? What effects does this have on the efficiency and effectiveness of the VET workforce?

The triennial ABS *Working Time Arrangements* (Cat. No. 6342.0) publication provides data on the number of employees who were multiple jobholders.[18] The latest data are for November 2009. Data on multiple jobholders by industry (to the 3 digit industry level) from this publication are available for purchase from the ABS (subject to confidentiality restrictions) as a special data request. DEEWR does not currently have this data.

[17] ABS *Employee Earnings, Benefits and Trade Union Membership* (Cat. No. 6310.0), August 2009, Tables 21 and 22.
[18] ABS *Working Time Arrangements, Australia* (Cat. No. 6342.0), Table 10.

Comments in relation to Chapter 8 of the Issues Paper: Lessons from other sectors and other countries

What lessons can be learnt from VET sectors in other countries?

The OECD report mentioned by the Commission[19] is important to DEEWR because it discusses issues related to the effectiveness of teachers and trainers in the VET space. Key findings include:

- a shortage of VET teachers coupled with the issue of an ageing VET workforce across the OECD countries;
- a lack of currency in workplace activities negatively impacts on the quality of VET teaching;
- a lack of specific training and pedagogical preparation for the VET workforce.

This report also suggests ways of overcoming these challenges, such as:

- flexible recruitment of practitioners into VET training;
- part time work for VET trainers;
- partnerships between industry and institutions should be formed to allow cross pollination of individuals between the two sectors;
- incentive structures should be created to encourage VET trainers to seek out professional development opportunities in the industry space; and
- need to maintain robust data sets on the VET workforce.

In relation to experiences from other countries, OECD research has also revealed that:

- In China, teachers in VET schools are required to spend one month in a year working in their respective industries.
- In Norway, VET institutions and local employers collaborate to ensure an adequate supply of VET trainers. This has subsequently resulted in making the profession attractive.
- In US, an alternate certification system has been put in place to attract high quality individuals.
- In Finland, the "Telkka" (2 month) program pairs up teachers and work place trainers.

What lessons can be learnt from these reviews and from other sectors more broadly?

Similar problems to those which exist in Australia are also apparent in Europe where, although 'teacher and trainer competence and effectiveness appear to be the cornerstone of European VET reforms', a robust and broadly-based engagement of teachers in VET reform is almost non-existent (Cedefop 2009).

Because VET functions as a technology intermediary and in applied development, its role tends to be largely discretionary. VET therefore depends on the initiative of individual colleges and teachers (Toner 2008). A more systematic and embedded approach is needed for VET to enable a full contribution to Australia's productivity growth (Toner 2008).

Not only does this require the teaching workforce to be up-to-date with new and emerging technologies and incorporating these into their teaching, the workforce also has to be able to deliver teaching in ways suited to the changing business environment (Toner 2009).

[19] Learning for jobs: OECD Policy Review of Vocational Education and Training, Field et al, 2009

Approach to building an indigenous workforce capability in the VET sector

The Commission has been asked to consider factors that impact on building Indigenous workforce capability in the VET sector. The department would like to take the opportunity in this submission to address these issues specifically.

Indigenous peoples face a number of barriers to entry into the VET workforce and to their broader participation in the economy. These include early disengagement from schooling, low levels of education attainment, low Year 12 retention rates, low literacy and numeracy levels, geographic isolation (for remote Indigenous peoples), poor health levels, low levels of income, homelessness/low levels of home ownership, family breakdown and lack of exposure to the mainstream workforce.

Low literacy and numeracy skills form a major barrier to Indigenous people entering the VET (and broader) workforce. Strategies to improve these skills, amongst Indigenous adults as well as VET and school students, will be essential to overcome this hurdle. The VET sector has an important part to play in achieving this objective.

If Indigenous VET outcomes are to improve, it is vital that an Indigenous VET workforce be grown and nurtured. The development of a VET workforce plan therefore needs to include a specific strategy for the recruitment, training and employment progression of Indigenous people across all the proposed VET workforce groups – practitioners, professionals and general staff. Elements of this strategy might include:

- supporting Indigenous VET providers who have attained the necessary qualifications to take a leadership role in aspiration-building and mentoring others through the VET workforce pathway;
- creating pathways into the VET workforce. This might start with Indigenous people acting as cultural or teaching aides or interpreters while working towards further qualifications;
- communication strategies which build Indigenous people's aspirations to join the VET workforce, and detail the support services that can be assessed. These include access to interpreters, scholarships, cadetships, ABSTUDY, mobility assistance, wages subsidies, loans for viable business ideas for those looking to be self employed RTOs and educational support services;
- requiring or providing incentives for VET providers to have Indigenous career and development strategies to recruit and retain Indigenous staff and enable them to progress within the organisation and the VET sector;
- providing specific scholarships for Indigenous people to join or improve their qualifications within the VET sector; and
- working with universities and the TAFE sector to create pathways and support for Indigenous students to enter the sector, as well as qualifications which recognise and value experience in working with Indigenous communities.

To halve the gap in Indigenous employment, a focus is needed on helping certain sub-groups within the Indigenous Australian population into employment. Strategies to increase the Indigenous VET workforce need to recognise that these groups need access to more flexible training which addresses their particular needs and barriers. They consist of:

- the unemployed;

- people who are not in the labour force (NILF);
- those living in remote areas – barriers include low literacy and numeracy levels and lack of mainstream work experience;
- youth (including those transitioning from school to work) for whom low levels of attendance at and engagement in school, low school attainment levels, low Year 12 retention rates and the low rate of engagement in either study or work are major barriers. An estimated 139 000 young Indigenous people will be leaving school between 2008 and 2018;
- young mothers – for whom child care and disengagement from school are major barriers;
- people with health barriers; and
- those in, or at risk of involvement in, the justice system (including the juvenile justice system).

We also need to recognise that Indigenous people who are already employed may be seeking the opportunity to upgrade their qualifications to enable them to enter and progress in the VET workforce.

To help increase Indigenous VET enrolments and most importantly completions, it is critical that all VET workforce members (including non-Indigenous staff) have a strong understanding of their Indigenous VET students' needs and deliver services in culturally appropriate ways. This means acknowledging the unique and critical role that VET plays for many Indigenous people by offering "second chance" learning opportunities. VET also plays a fundamental part in achieving COAG's Closing the Gap targets (both in relation to halving the employment gap by 2018 and halving the Year 12 attainment gap by 2020).

All Indigenous VET workforce members need to understand the barriers to education, training and employment faced by Indigenous people and provide the support that they (and their families) need to succeed. It means:

- requiring VET providers and staff to undergo training in cultural awareness (ie. effective ways of working with local Indigenous communities);
- supporting the creation and expansion of professional development courses and materials which promote cultural awareness of Indigenous VET students' needs;
- working with universities and TAFEs to build cultural awareness into mainstream VET workforce qualifications courses;
- supporting partnerships eg. between VET and local Indigenous community organisations to develop training which meets the needs of Indigenous students;
- developing workforce capacity to consult with local communities to identify its training and education needs, and the flexibility to meet these needs;
- responding to industry growth sectors in close proximity to Indigenous communities by ensuring that Indigenous people can access VET courses to enter those sectors (rather than undertaking "training for training's sake"); and
- focusing on the need for strong communications skills in working with Indigenous communities, and using interpreters and cultural aides (eg. English is not the first language for some Indigenous people).

The current issues paper has an insufficient focus on remote Australia. As 25 per cent of the Indigenous population lives in remote Australia and the Indigenous population is a relatively high user of VET training, the VET workforce plan needs to include a specific strategy, including adequate resourcing, for a workforce in remote and very remote areas. This could involve:

- training and supporting mobile classrooms/staff;
- developing appropriately trained mentors/study aides (eg. similar to a teacher's aide) to help trainees with the academic as well as the practical aspect of VET. The flexibility would enable the students to remain in their own community or workplace longer in an attempt to overcome mobility and distance issues. These mentors or study aides could also be supported to become full VET practitioners over time in remote communities (using a step-by-step pathway to building a remote Indigenous workforce); and
- providing IT services and e-Learning in communities. However, wherever possible, the emphasis should be on face to face training (possibly drawing on Indigenous mentors or aides), or combining this with e-Learning.

The paper states that there is an increasing focus on higher level qualifications within the VET sector. This could mean that many Indigenous people may be "shut out" of entering the sector due to low levels of qualification attainment. Strategies to overcome this might involve:

- building pathways into the VET sector – for example, enabling entry level as an aide or mentor whilst undertaking further qualifications;
- recognising alternative qualifications (eg. certificate courses rather than degrees), or certificates of attainment based on actual experience; and
- creating and requiring qualifications which recognise and value experience in working effectively amongst local Indigenous communities.

The majority of Indigenous VET participation is currently in the Certificate II and III courses. To ensure that Indigenous students can aspire to joining the VET workforce, a broader strategy should be developed to improve Indigenous participation in and completion of higher level courses commensurate with the wider Australian population rate.

In this context, an examination of the RTOs' strategies to encourage client progression towards further qualifications (beyond Certificate II) would be useful. This may identify some best practice progression models which could possibly be adapted for use in other locations.

Nationally there are insufficient numbers of suitably qualified trainers and assessors with very limited numbers of Indigenous trainers and assessors. This should form a specific element of an Indigenous VET workforce strategy, including responses to particular barriers. For example, the course cost may prohibit Indigenous people from enrolling and becoming qualified in this sector. Subsidised funding to cover the majority of the course fees with participants making a nominal contribution.

Background information:

Draft Indigenous Economic Development Strategy (at http://resources.fahcsia.gov.au/IEDS/ieds_strategy_v4.pdf) This document, which is currently released for consultation, sets out the Government's proposed vision for increasing the wellbeing of Indigenous Australians through greater economic participation and self-reliance.

Demographics of the Indigenous peoples

The 2006 ABS Census estimated 2.5 per cent of the Australian population to be of Aboriginal or Torres Strait Islander origin. Between 2001 and 2006, the Indigenous population increased by 13 per cent due to natural growth and an increase in numbers identifying themselves as Indigenous.

Compared to the general Australian population, the Indigenous population is relatively young, with a median age of 21 years compared with 37 years for the wider Australian population.

Nearly 57 per cent of the current Indigenous population is under 25 years of age, compared to 33 per cent of the Australian population. Only 3 per cent of the Indigenous population is over 65 years of age, compared to 13 per cent of the wider Australian population.

In 2008, 53.8 percent of the Indigenous population were employed compared to 75 per cent of the wider Australian population - a gap of 21.2 percentage points.

Labour force non-participation is a major contributor to the employment gap, with 35.5 per cent of the Indigenous workforce aged population not in the labour force compared to 21.7 per cent of non-Indigenous people.

Meeting the COAG employment target equates to reducing the employment gap below 11 percentage points through the employment of an additional 100 000 Indigenous Australians and improved labour force participation by 2018.

In 2008 there were 73 732 Indigenous VET students, compared to 59 882 in 2002, with the majority of students undertaking Certificate II and Certificate III courses.

Conclusion

The Department appreciates the opportunity to contribute to the Commission's study of the VET Workforce and looks forward to working with the Commission on this and other segments of the research study.

Attachment A – ANZSIC 2006 classification for the Tertiary education (81) sub-industry

DIVISION P – EDUCATION AND TRAINING

Subdivision 81 – Tertiary Education

Group	Class	Description

810 TERTIARY EDUCATION

8101 Technical and Vocational Education and Training

This class consists of units mainly engaged in providing technical and vocational education and training. These units offer a large variety of courses covering a range of subjects or specialise in a particular field of education such as computer and business management training.

Primary activities

- Apprenticeship training program operation
- Business college and school operation
- Information technology training centre operation
- Institute of technology operation
- Professional and management development training
- Secretarial training
- Technical and further education college operation
- Technical college operation
- Vocational computer training

Exclusions/References

Units mainly engaged in

- providing undergraduate or postgraduate teaching are included in Class 8102 Higher Education;
- providing sports and physical recreation coaching not predominantly leading to tertiary qualifications are included in Class 8211 Sports and Physical Recreation Instruction; and
- providing education in the arts not predominantly leading to tertiary qualifications are included in Class 8212 Arts Education.

8102 Higher Education

This class consists of units mainly engaged in providing undergraduate or postgraduate teaching.

Primary activities

- Colleges of education operation
- Postgraduate school, university operation
- Research school, university operation
- Specialist institute or college
- Teachers' college operation
- Undergraduate school, university operation
- University operation

Exclusions/References

Units mainly engaged in

- operating student halls of residence are included in Class 4400 Accommodation; and
- undertaking research in the agricultural, biological, physical or social sciences are included in Class 6910 Scientific Research Services.

Attachment B

DEEWR commissioned research into VET's role in enhancing Australia's innovation and productivity growth

Beddie, F (forthcoming), *Innovation and VET: What role for government? Some ruminations*.

Callan, V & Ashworth, P 2004, *Working together: Industry and VET provider training partnerships*, NCVER.

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