



SUMMARY PAPER

STATE TRAINING PLAN 2017-2020



Government of Western Australia
Department of Training
and Workforce Development





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INTRODUCTION

As a requirement of the *Vocational Education and Training Act (VET Act) 1996*, the *State Training Plan 2017-2020* (the Plan) will identify the priorities that guide the Government's investment in the delivery of training and skill development in Western Australia.

These priorities will aim to ensure that the Western Australian Vocational Education and Training (VET) sector is responsive and flexible to meet the dynamic and diverse needs of industry and the community.

This summary paper has been prepared to assist the Board in identifying the priorities for the coming period.

It summarises the:

- National and State settings to provide a policy context;
- VET delivery trends;
- Comprehensive analysis of economic and labour market trends and forecasts for Western Australia; and
- Findings of industry research, including that of the Board.

The paper concludes with the identification of issues which could be considered by the Board in determining priorities for inclusion in the Plan.

This paper is supported by a Background Paper, which contains more detail and analysis for further information.



POLICY CONTEXT

NATIONAL VET SETTINGS

A key policy at the national level is the National Agreement for Skills and Workforce Development (NASWD). The NASWD came into effect in January 2009 and was formulated to ensure that Australia is able to develop and increase the skill levels of all individuals, with long term targets to 2020 to ensure:

- more Australians achieve qualifications; and
- that the number of higher level qualification completions is increased.

Further to the NASWD, the National Partnership Agreement on Skills Reform (Skills Reform NP), which expires on 30 June 2017, sets out agreed outcomes to ensure that Vocational Education and Training (VET) sectors across Australia deliver high quality training systems that are easily accessible, equitable and responsive to the needs of students, employers and industry.

This includes the implementation of a training entitlement model in each State and Territory (for Western Australia, this was introduced in 2014).

The Skills Reform NP for Western Australia also contains specific targets relating to completions for aggregate qualifications, higher level qualifications (Certificate III and above), Indigenous Australians (Certificate II and above), students with a disability (Certificate II and above) and regional and remote area qualifications (Certificate III and above).

It should be noted that a new or replacement agreement has not yet been offered by the Australian Government.

Other reforms aimed at creating a national VET sector which delivers quality learning experiences and qualifications relevant to individuals, employers and industry include:

- more rigorous and consistent assessment;
- training package design and processes; and
- strengthening of VET regulation.

The harmonisation of the apprenticeship system is also continuing to encourage apprentice mobility, increase apprentices' training and employment opportunities, and reduce costs for business.

STATE VET SETTINGS

Labor Government's Plan for Jobs

The *State Training Plan 2017-2020* takes into account the Labor Government 2017 election commitments, in particular the *Plan for Jobs* and underpinning principles laid out in its election platform. The broader context underpinning *Plan for Jobs* is the need to diversify the State's economy, develop key transport and other economic infrastructure, and leverage off State expenditure in these areas to maximise opportunities for Western Australians to get skilled jobs, including through apprenticeships and traineeships.

Key initiatives under *Plan for Jobs* include:

- Priority Start;
- METRONET;
- Industry Skill Centres;



- Regions;
- Manufacturing; and
- Tourism, hospitality and events.

Each initiative aims at increasing job opportunities for Western Australians across a wider range of industries. The Government wants greater effort in the areas of science, technology, manufacturing, tourism, services, education services, agriculture and other industries. Regional employment opportunities are also a priority for the Labor Government.

In addition to the national VET settings, the priorities for the training system in Western Australia have been guided by the following policy documents:

- *Skilling WA: A workforce development plan for Western Australia*;
- Delivering training to meet priority workforce skills required by industry;
- *Joint Ministerial Statement on Vocational Education and Training (VET) in Schools*;
- *Training together – working together: Aboriginal workforce development strategy*; and
- Western Australian Training Sector Reform Project.

Through planning and prioritisation, Western Australia provides a guaranteed, subsidised training place for eligible students enrolled in courses that are deemed State priority qualifications, where there is an approved training place available. This includes all apprenticeships and eligible traineeships, qualifications on Western Australia's Priority Industry Qualification List, and access to essential literacy and numeracy training through foundation skills courses.

Skilling WA has been the State Governments' framework to guide Western Australia's workforce needs and priorities. A key strategic goal of *Skilling WA* has been to provide a responsive and flexible education and training system which enables Western Australians to develop the skills necessary to take up emerging workforce opportunities and contribute to the State's economic growth. To achieve this goal, *Skilling WA* included the following three strategies:

- Increasing participation in education and training;
- Increasing skills development and utilisation in the workplace; and
- Enhancing the flexibility, responsiveness, capability and capacity of the education and training system.

The VET in Schools program is another important component within the State's training system.

To enhance training pathways for young people, the VET in Schools program provides students with the opportunity to gain a nationally recognised vocational education and training qualification, workplace experience and skills development whilst completing their secondary education.

In 2014, the then State Government provided direction for VET in Schools through the release of the *Joint Ministerial Statement on Vocational Education and Training (VET) in Schools*. A VET in Schools Qualifications Register was also released, providing parents, students and schools with industry guidance on the suitability of qualifications and quality requirements to meet industry needs.

Released in 2010, the *Training together – working together: Aboriginal workforce development strategy* has focused on assisting Aboriginal people to participate effectively in the workforce and to ensure that the training they receive is closely linked to real job





opportunities. A key element of the strategy included the development of a network of Aboriginal Workforce Development Centres in the metropolitan and regional areas.

An update of the *Training together – working together strategy* was released in May 2014. This update identified a series of ‘next steps’, including implementation of an employer and youth engagement strategy, and refreshing the Aboriginal Workforce Development Centre website capability.

In February 2016, under the Training Sector Reform Project, new arrangements for the publicly funded training sector were announced.

The key change to the State’s TAFE arrangements saw the streamlining of the number of TAFE colleges changes from eleven to five, with three in regional Western Australia and two in the metropolitan area.

Implemented in April 2016, these changes are aimed at ensuring greater collaboration among the network of TAFE colleges, providing students, particularly in regional areas, access to more diverse training programs.



VET DELIVERY TRENDS

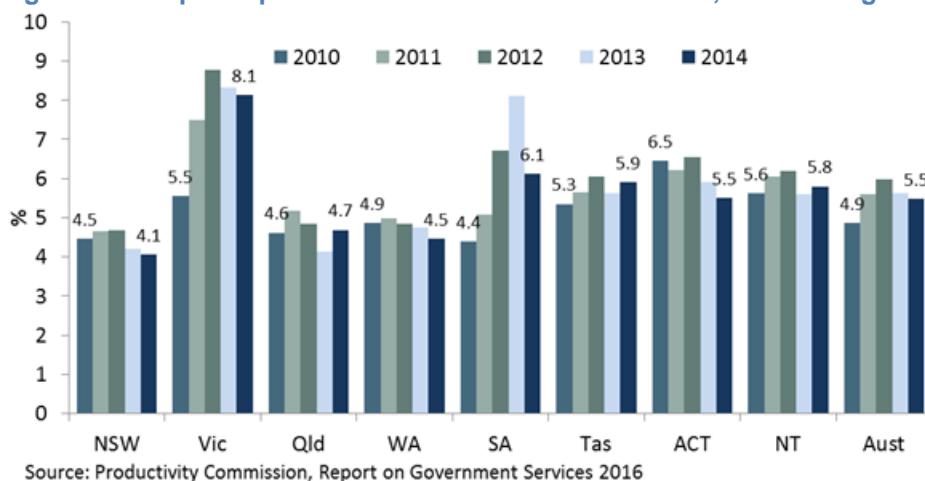
NATIONAL

One of the long term targets of the NASWD is to halve the proportion of Australians aged 20–64 years without qualifications¹ at Certificate III level or above between 2009 and 2020.

As can be seen in Figure 1, the results² nationally have been mixed, with Western Australia broadly following this trend.

In 2014, around 4.5% of all people aged 20–64 years in Western Australia participated in a Certificate level III or above VET course, which was lower than the rate of 4.9% recorded in 2010.

Figure 1: VET participation rate in Certificate III or above, students aged 20-64 years



Source: Productivity Commission, Report on Government Services 2016

The NASWD includes a further national target to double the number of higher level qualification completions (diploma and advanced diploma) between 2009 and 2020.

Again, Western Australia followed the national trend in 2014 (see Figure 2). Approximately 14,400 people in Western Australia aged 15–64 years participated in a diploma level or above VET course, representing 0.8% of the State's population aged 15–64 years, which was a decrease of 0.2 percentage points since 2010³.

¹ This Agreement while focused on the VET sector recognises the role played by governments, individuals, industry and by the higher education and school sectors in attaining these targets.

² The latest available data at a national level is 2014, and is for publicly funded courses (National Training Agreement (NTA) scope) only.

³ Data collection is for publicly funded courses (National Training Agreement (NTA) scope) only.

**Figure 2: VET participation rate in Diploma and above, students aged 15-64 years**

The National Centre for Vocational Education Research (NCVER) recently released *Total VET Students and Courses 2015*⁴ publication, which includes all VET activity (Total VET Activity) including both public and private funded training. The report indicates that more than half of all VET hours delivered nationally in 2015 were Commonwealth or State-funded (55.5% of Total VET Activity). A further 36.6% of VET hours delivered nationally in 2015 were privately funded by domestic students. In comparison, almost two-thirds (62.9%) of VET hours delivered in Western Australia in 2015 were Commonwealth or State-funded and a further 30.5% of VET hours delivered in Western Australia in 2015 were privately funded by domestic students.

Caution must be taken when using Total VET Activity data as there is significant under-reporting and a range of other issues around the classification of VET activity and data quality which are currently being addressed.

In terms of the Skills Reform NP, Western Australia is exceeding all of the targets⁵ agreed with the Commonwealth for completions in:

- aggregate qualifications;
- higher level qualifications (Certificate III and above);
- Indigenous Australians(Certificate II and above);
- students with a disability (Certificate II and above); and
- regional and remote area qualifications (Certificate III and above).

STATE

A key objective of the State's training system is to increase the delivery of those qualifications deemed as a priority to meet the needs of Western Australia's workforce.

Table 1 shows in 2016 there was a 1.4% decrease in enrolments in broad priority training qualifications. This includes a decrease of 9.6% in apprenticeships and traineeship enrolments partially offset by an 11.0% increase in CAVSS and USIQ enrolments. There was also a 7.6% contraction in general industry qualifications, resulting in an overall decline in enrolments of 3.5%.

⁴ NCVER, *Total VET students and courses 2015*, 26 July 2016.

<https://www.ncver.edu.au/publications/publications/all-publications/2874#>

⁵ Latest data at a national level only available at 2013 - ACIL Allen Consulting, *Review of the National Partnership Agreement on Skills Reform Final Report*, 21 December 2015.



Table 1: VET Delivery By Funding Type – Course Enrolments 2015-2016

Training Category	Course Enrolments	
	2015	2016
Apprenticeships and Traineeships	38,111	34,456
Priority Industry Qualifications	23,614	24,618
CAVSS and USIQ ⁶	16,306	18,100
Other foundation skills courses	10,153	9,807
Sub-total - Priority training	88,184	86,981
General Industry Qualifications	46,198	42,677
TOTAL	134,382	129,658

Source: VET Enrolment Data Collection⁷, final full year data for 2016

Table 2 illustrates the delivery of training for the broadest level of occupational groupings⁸ for 2015 and 2016. As shown below, the largest number of enrolments occurred in higher skilled occupational areas. Of these, enrolments were the highest for technicians and trade workers, followed by community and personal service workers.

Table 2: VET Delivery – Course Enrolments by ANZSCO

ANZSCO	Course Enrolments	
	2015	2016
1 Managers	8,259	6,871
2 Professionals	8,846	7,495
3 Technicians and Trades Workers	32,089	30,137
4 Community and Personal Service Workers	25,762	25,857
5 Clerical and Administrative Workers	11,322	10,915
6 Sales Workers	1,851	1,967
7 Machinery Operators and Drivers	7,023	7,166
8 Labourers	12,790	11,187
General Education ⁹	26,439	27,957
Total	134,381	129,658 ¹⁰

Source: VET Enrolment Data Collection¹¹, final full year data for 2016

Table 3 shows VET sector course enrolments by industry classification. For both 2015 and 2016, the top three industries in terms of the number of enrolments were health care and social assistance, manufacturing, and construction.

In 2016, the Health Care and Social Assistance industry had the highest number of related course enrolments in the VET sector with almost a 14% share of total course enrolments in 2016, compared to a share of 12.4% in 2015.

⁶ For further information on the Course in Applied Vocational Study Skills (CAVSS) and the Course in Underpinning Skills for Industry Qualifications (USIQ), please see section 6 of the background paper.

⁷ Data collection is for the National Training Agreement (NTA) scope which is only for enrolments funded by the Department of Training and Workforce Development.

⁸ Australian and New Zealand Standard Classification of Occupations (ANZSCO) Major Group – 1-digit codes

⁹ This category includes foundation skills training and does not have defined occupational outcomes.

¹⁰ Total includes 106 'Not yet classified' enrolments

¹¹ Data collection is for the National Training Agreement (NTA) scope which is only for enrolments funded by the Department of Training and Workforce Development.



Course enrolments related to the manufacturing industry had the second highest number of total VET sector course enrolments, and maintained its 2015 share of total course enrolments of 12.7% in 2016.

The third largest industry for course enrolments in 2016 was for Construction which slightly increased its share of total enrolments in 2016 to 9.1% from 8.9% in 2015.

Table 3: VET sector course enrolments by industry classification

Industry	Course Enrolments	
	2015	2016
Agriculture, Forestry and Fishing	6,903	6,674
Mining	2,973	2,520
Manufacturing	17,088	16,456
Electricity, Gas, Water and Waste Services	1,528	729
Construction	11,913	11,751
Retail Trade	3,083	2,385
Accommodation and Food Services	5,626	4,966
Transport, Postal and Warehousing	4,930	4,352
Information Media and Telecommunications	2,534	2,458
Financial and Insurance Services	140	61
Rental, Hiring and Real Estate Services	119	70
Professional, Scientific and Technical Services	10,800	9,448
Administrative and Support Services	7,628	7,613
Public Administration and Safety	991	844
Education and Training	3,207	2,645
Health Care and Social Assistance	16,627	18,085
Arts and Recreation Services	3,541	3,381
Other Services	7,039	6,751
Not Classified ¹²	27,711	28,469

Source: VET Enrolment Data Collection¹³, final full year data for 2016

The VET in Schools program provides a valuable training pathway for senior secondary students in Western Australia.

Figure 3 shows the growth in course enrolments funded by the Department of Training and Workforce Development (DTWD) for the VET in Schools program from 2015 to 2016 across industry classifications.

Figure 3 illustrates that across both years, manufacturing, construction, health care and social assistance, and other services¹⁴ industries attracted the highest number of course enrolments for the VET in Schools program.

The four industry classifications with the highest percentage increase in course enrolments in 2016 were transport, postal and warehousing, information media and telecommunications,

¹² The Not Classified category mainly consists of General Education course enrolments which by their general nature are not classified by industry, as well as some other course enrolments that have not been classified to a specific industry.

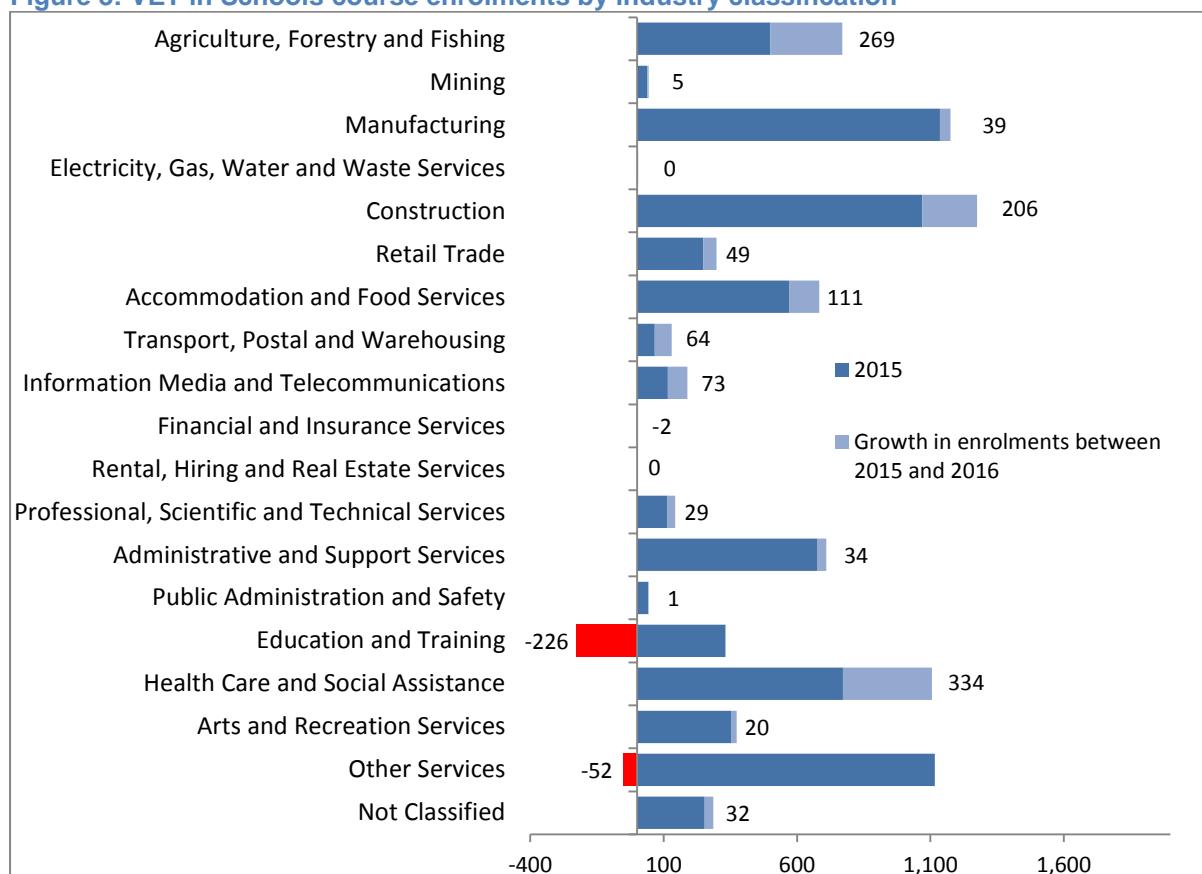
¹³ Data collection is for the National Training Agreement (NTA) scope which is only for enrolments funded by the Department of Training and Workforce Development.

¹⁴ The Other Services Division includes a broad range of personal services; religious, civic, professional and other interest group services; selected repair and maintenance activities; and private households employing staff.



and healthcare and social assistance with increases of 96.7%, 62.9%, 53.8% and 43.3% respectively.

Figure 3: VET in Schools course enrolments by industry classification

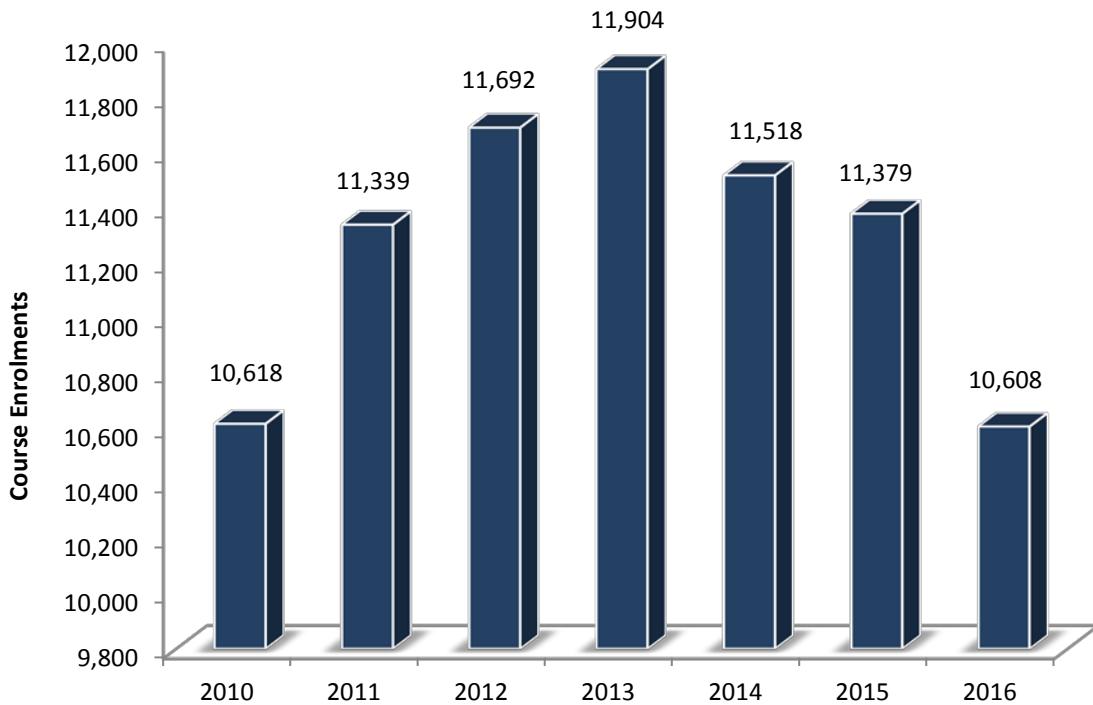


Source: VET Enrolment Data Collection, final full year data for 2016 – NTA scope only

Released in 2010, the *Training Together-Working Together: Aboriginal Workforce Development Strategy* has assisted Aboriginal Western Australians in improving their training and employment outcomes.

As illustrated in Figure 4, since 2010 course enrolments for Aboriginal people steadily increased until 2013. However consistent with the overall delivery trends within the training system, Aboriginal participation in training has since declined.



**Figure 4: Aboriginal participation in training by NTA Scope¹⁵**

Source: VET Enrolment Data Collection, final full year data for 2016

A key strategy of *Training together-working together* included connecting Aboriginal jobseekers and employers and providing support services to both groups. To achieve this, Aboriginal Workforce Development Centres (AWDCs) were established in the metropolitan area and four centres in regional Western Australia.

Since the inception of the AWDCs, some 1,250 Aboriginal people have been placed into employment and over 700 Aboriginal people have commenced training that is closely linked to job opportunities.

¹⁵ Data collection is for the National Training Agreement (NTA) scope which is only for enrolments funded by the Department of Training and Workforce Development.



WESTERN AUSTRALIA'S ECONOMY AND LABOUR MARKET

After experiencing very strong growth over the past decade, the State's economy is being impacted by the effects of the post resource sector investment downturn, and has now entered a period of below trend growth¹⁶.

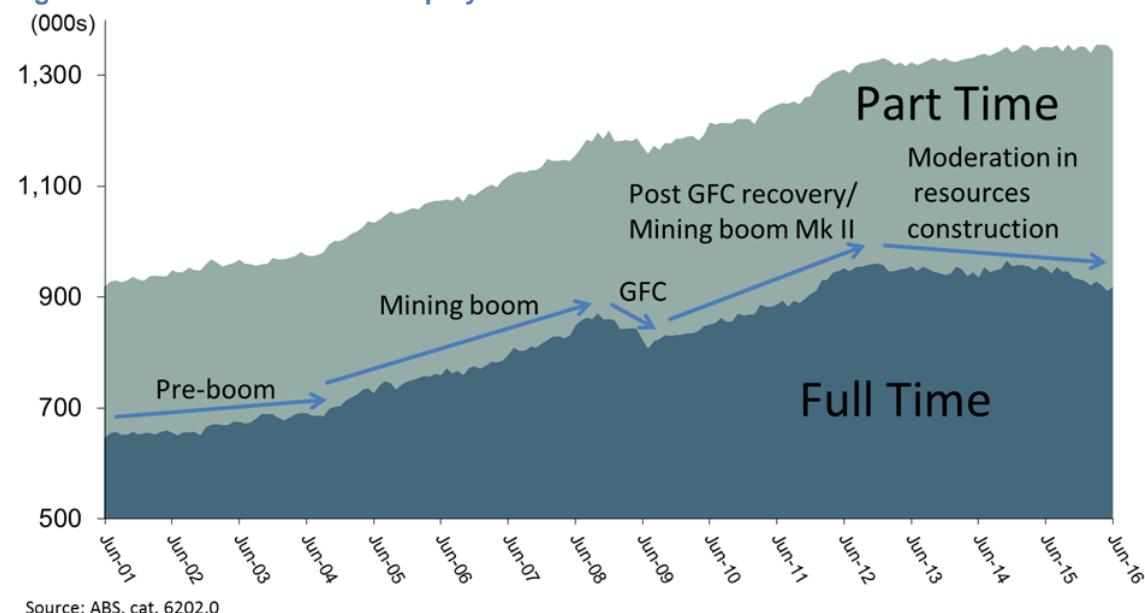
Key factors influencing Western Australia's labour market over 2015–16 were subdued business and consumer confidence, continuing global uncertainty, slower population growth, lower commodity prices, and the ongoing transitioning of many of the State's major resource projects from construction to the operation phases. Combined, these factors have led to somewhat mixed but mostly subdued conditions across the State's labour market.

Employment growth has slowed over the past four years in Western Australia. Overall, the State recorded negligible annual average growth in employment of just 0.1% over 2015–16, compared to 1.5% growth in 2014–15. This growth rate was significantly lower than the equivalent growth rate nationally over 2015–16 of 2.1%, and it was well below the State's average yearly rate recorded over the past decade of 2.7%.

Further to this, employment growth over 2015–16 was entirely driven by part time employment, which increased by 6.3% compared to the previous year, while full time employment declined by 2.4% for the same period. This reflects a compositional shift occurring in the State's labour market, with a relative skewing of jobs growth shifting towards part time workers over the past three years.

During 2016, this trend to part time has occurred in a majority of industry areas.

Figure 5: Western Australia's employment levels



This pattern of moderation in jobs growth is reinforced by the State's overall volume of hours worked being significantly lower than the rate of total employment growth over recent years, with some employers seemingly preferring to reduce the hours worked by employees, rather than shedding jobs.

Growth in the State's economy has been impacted by the continuing transition from previous very high levels of business investment (mostly associated with the construction phases of

¹⁶ Western Australian State Budget, May 2016, Budget Paper 3.





major resource sector projects) towards increased production/exports resulting from the operational phases of such projects. In particular, three very large LNG projects are due to be completed by 2017 and these represent 85% (\$102 billion) of the total worth of projects currently under construction in Western Australia.

The easing in major resource project construction in recent years has seen business investment in the State continue to decrease since its peak in late 2012. The resource sector's shift to the less labour intensive operations phases continues to present opportunities for a different mix of skills, but mainly at a higher skill level.

An important offset to the moderation in resources construction over the past few years has been the strong growth in residential construction work carried out in the State. Residential construction has been assisted by historically low interest rates, along with previous strong population growth. This resulted in a surge in the supply of housing during 2014–15, with a record 31,194 commencements. However, Western Australia's population growth has now slowed considerably and more evenly balanced supply and demand elements in the State's dwelling market are key factors impacting the future outlook for residential construction in the State.

The volume of residential construction work done increased by 2.3 per cent over the year to March 2016. However, residential construction work has begun to slow from the record high in 2014–15, with a decline in the past two quarters up to March 2016.¹⁷ Furthermore, the latest (April 2016) forecasts from Western Australia's *Housing Industry Forecasting Group*¹⁸ show that around 23,000 dwelling commencements in the State are expected for 2015–16, substantially down from the 31,194 commencements in 2014–15, with commencements forecast to fall even further (to 19,000) in 2016–17.

The combination of residential commencements peaking over 2014–15 and a slowdown in resource construction work is likely to have resulted in some resource construction workers taking the opportunity to switch over into non-resource construction work. While this has helped to meet the labour demands of the non-resource construction industry¹⁹, not all of these workers will have been able to readily fit into the residential sector roles.

Further to this, the combination of the expected completion of three large LNG projects in 2017 and a forecast decline in the number of residential commencements over the next couple of years suggests that there will be limited opportunities for existing resource construction workers to transition to the residential sector in the future.

There was a mix of employment growth rates on an industry basis during 2015–16. Despite the small but positive employment growth for the State overall of 0.1%, only eight of the 19 industries recorded an increase in employment from the previous year. This reflects the current transitioning of the State's economy away from the very high levels of investment in resource projects.

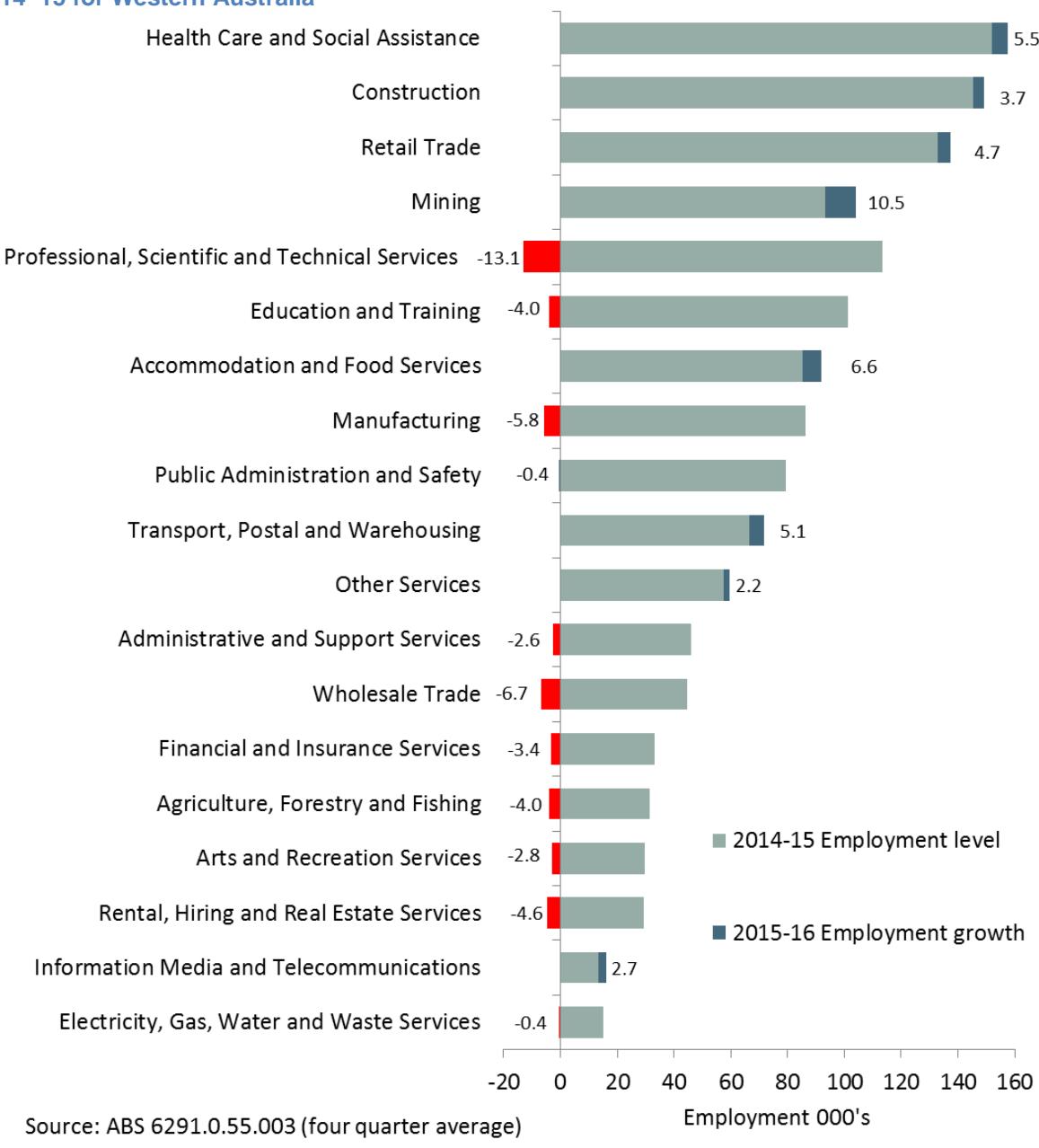
¹⁷ ABS 8755.0 Construction Work Done, Australia, Preliminary, Mar 2016 (Spreadsheet: Table 04).

¹⁸ The Housing Industry Forecasting Group (HIFG) is a joint industry and government body re-established in February 2008 to provide independent commentary on the housing sector in WA. The Department of Planning and the Housing Authority jointly provide the HIFG secretariat and research function.

¹⁹ The Construction Industry Training Council has provided feedback that Construction trades workers who have returned from the mining sector may be hired by employers in the building sector to the detriment of apprentices.



Figure 6: Number of persons employed by industry, growth over 2015–16, and levels for 2014–15 for Western Australia



Despite lower commodity prices and a focus on cost cutting, data from the ABS shows that the Mining industry recorded the largest increase in employment of any industry during 2015–16 with an additional 10,500 workers (11.3%), after previously recording a sharp decrease in employment in the prior year. It is difficult to fully substantiate this rise in Mining employment, and although the ABS industry figures can be volatile, possible reasons for the increase in employment during this most recent period may relate to a resurgence in gold mining (due to higher \$A gold prices), and increased activity associated with the final stages of construction of LNG projects in order to meet operational deadlines for 2017.

The Health Care and Social Assistance industry has maintained solid employment growth over recent years and recorded an annual growth rate of 3.6% during 2015–16. This industry continues to be the highest employing industry in the State, accounting for 11.7% of all employees. As expected, this solid growth highlights the increasing importance of the sector





as the State's population ages (in respect to the additional demand this places on health and social services).

The Construction industry in Western Australia employed an average of around 149,150 persons over 2015–16 and is responsible for 11.1 per cent of all persons employed in the State. The Construction industry as a whole recorded solid employment growth of 2.5% over 2015–16 or an increase of 3,700 employees, to remain as the State's second largest employing industry behind the Health Care and Social Assistance industry.²⁰

The Retail Trade industry (currently the State's third largest employing industry and accounting for 10.2% of total jobs) recorded employment growth of 3.5% over 2015–16. This employment growth came despite ongoing pessimism in consumer sentiment. Retail sales (a partial indicator of household consumption) slowed in Western Australia over the past year, with levels of retail turnover decreasing by 0.2% in real terms over the March 2016 quarter, and decreasing by 0.7% over the year²¹.

Other industries to record strong jobs growth over the 2015–16 year were Accommodation and Food Services (6,600 persons, or 7.7%); Transport, Postal and Warehousing (5,100 workers, or 7.6%); Information Media and Telecommunications (2,700 workers, or 19.7%); and Other Services (2,200 persons, or 3.8%).

The most notable fall in employment levels came from the Professional, Scientific and Technical Services industry²² which recorded a reduction of 13,100 workers (or 11.5%) from an average of 113,400 in 2014–15 to 100,400 in 2015–16. This resulted in the industry moving from being the fourth largest employing industry a year ago to now being the fifth largest with a share of 7.4% of all employees in the State.

The State's transitional economic conditions over the past year are reflected by the fact that ten other industries (further to Professional, Scientific and Technical Services) recorded falls over the year, including Wholesale Trade (down 6,700 workers, or - 14.8%); Manufacturing (down 5,800 workers, or - 6.7%); Rental, Hiring and Real Estate Services (down 4,600 workers, or -15.6%); Education and Training (down 4,000 workers, or - 3.9%); Agriculture, Forestry and Fishing (down 4,000, or -12.6%); Financial and Insurance Services (down 3,400 workers, or -10.3%); Arts and Recreation Services (down 2,800 workers, or - 9.4%); Administrative and Support Services (down 2,600 workers, or - 5.6%); Public Administration and Safety (down 400 workers, or - 0.5%); and Electricity, Gas, Water and Waste Services (down 400 workers, or - 2.5%).

These trends further underscore the transitioning in jobs growth away from the resources sector into a broader based growth profile, albeit with this happening in an environment of mixed industry and moderate labour market conditions in the State overall. It is also important to note that employment changes by industry in the State can noticeably fluctuate on a year to year basis. This poses a challenge in maintaining a suitably skilled workforce across all industries in the State.

Further to this, subdued labour demand across the State has resulted in a general decrease in employment growth in higher wage, full time positions (in industries like Professional, Scientific and Technical Services), towards jobs growth that is more skewed towards lower paid, part time jobs in industries such as Retail Trade, and Accommodation and Food Services.

²⁰ ABS 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly, May 2016 (Spreadsheet: Table 05).

²¹ Source: ABS Cat. 8501.0, Retail Trade, Australia

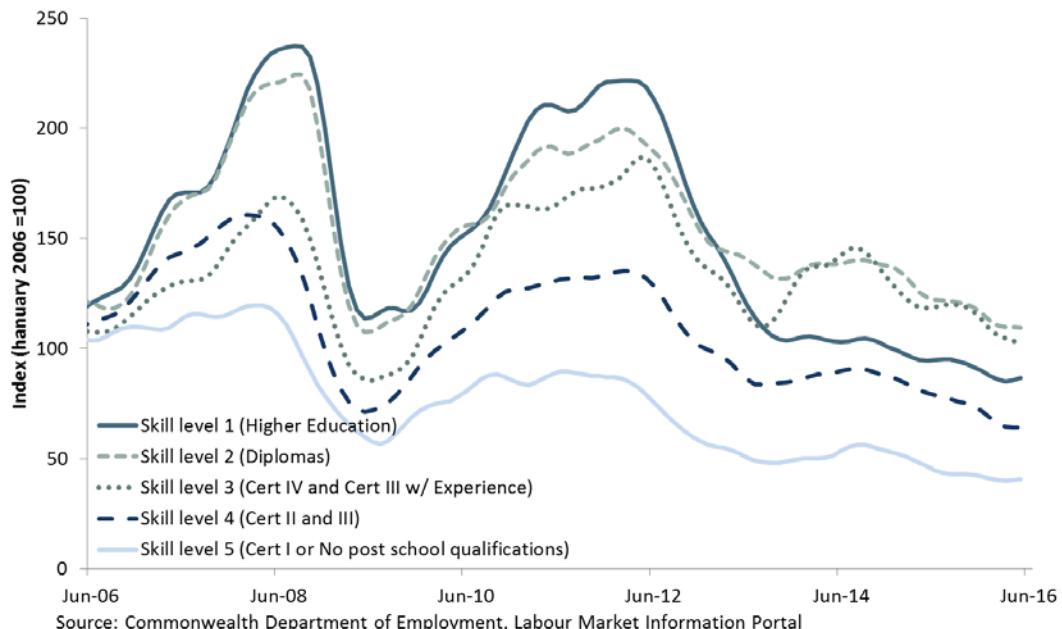
²² The Professional, Scientific and Technical Services industry includes architectural, engineering, legal, accounting, advertising, market research, consulting, veterinary and computer system services.



As a proxy for labour demand, the *Internet Vacancy Index*²³ (IVI - produced by the Commonwealth Department of Employment) showed that Western Australia recorded a 14.6% decrease in job vacancies for 2015–16 compared to a year prior (the biggest fall out of all Australian states and territories). The index is now below its reference point, which demonstrates advertising counts on a monthly basis are below their levels at the start of the index in January 2006.

The IVI also provides a breakdown of listed job adverts by their indicative skill level as defined by ANZSCO.²⁴ Though there have been declines across all areas, what is of note is the rate of decline for the varying skill levels. Since the State's labour market began to soften towards late 2012, those occupations requiring a bachelor degree or higher have declined the sharpest.

Figure 7: Internet Vacancy Index – Advertising by Skill Levels, Western Australia



By comparison, since 2012 those occupations requiring VET related skill levels declined at a slower rate than those requiring higher education. However, it is important to note that despite these heavy falls, advertising for higher education related occupations makes up the greatest share of vacancies in Western Australia at 32%. When combined with VET, 87.5% of all online job advertisements are for occupations that indicatively require at the least a Certificate II level qualification or higher for entry. This highlights the importance of post school education and training in Western Australia's current labour market.

The decline in demand (from previous high levels) for higher paid professionals, along with a growing share of lower paid part time employment has contributed to recent decreases in the overall value of the total compensation of employees (which can be seen as a broad measure of the total wages bill for the whole of the State). The impact of lower household incomes may

²³ This index has been trended and is based on a count of online vacancies newly lodged on SEEK, CareerOne and Australian JobSearch during the month. For more information, see:

<http://lmip.gov.au/default.aspx?LMIP/VacancyReport>

²⁴ The method used to match job advertisements to their skill level is undertaken by coding first via ANZSCO. That is to say a job advertisement is coded to an ANZSCO, and that ANZSCO's assigned skill level by the ABS is also automatically coded for that job advertisement as well. As a result, where a job advertisement has a different qualification requirement, such as a Child Care Worker (nominally a Skill level 4) wanting a diploma qualified applicant (Skill level 2), this is not picked up at present in this data set.





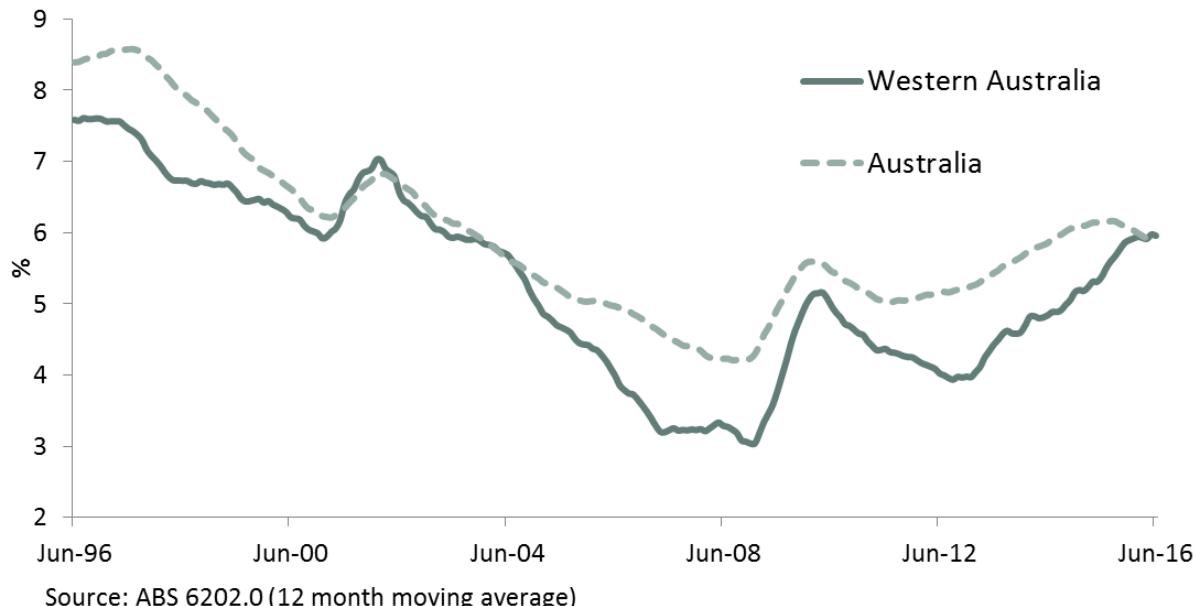
be impacting adversely on other sectors of the economy (associated with household spending) and has coincided with lower retail sales²⁵ over the past year to March 2016.

Despite declining demand for jobs, the State's labour market participation rate²⁶ averaged 68.3% over 2015–16, which was similar to the average rate of 68.5% a year prior. The Western Australian participation rate continues to remain well above the equivalent national rate of 65.0%.

With labour market participation in Western Australia remaining high, the softening in employment growth has coincided with rising unemployment. Western Australia's unemployment rate averaged 6.0% over 2015–16. This was a significant increase of 0.7 percentage points above the previous year's average unemployment rate of 5.3%. This result continues a longer running upwards trend in the State's unemployment rate over the past four years.

The State's increasing unemployment rate in recent years also means that Western Australia's average unemployment rate of 6.0% during 2015–16 has now risen above the national rate of 5.9% for the first time since 2004, as shown below in Figure 8.

Figure 8: Unemployment rate – Western Australia and Australia



The State's prolonged period of labour market moderation is also manifesting itself in other ways – of particular interest for the purposes of this State Training Plan is the increase in the number of long term unemployed persons in Western Australia. The number of people out of work for a year or more reached an average annual level of 18,000 persons (or around 21% of the average number of unemployed people over 2015–16). This was a sharp increase of 3,900 persons from the prior year.

By age cohort, those people aged 15 to 24 years old in the State made up just over one fifth of the total number of long term unemployed people in the State. A further breakdown of the State's young people shows that the total number of unemployed youth increased by 2,000 persons (or 8.2%) to 26,300, which represented just under a third (30.7%) of total unemployed persons in Western Australia.

²⁵ Retail turnover in Western Australia decreased by 0.2% in real terms over the March 2016 quarter, and decreased by 0.7% over the year to March 2016. (Source: ABS Cat. 8501.0, Retail Trade, Australia).

²⁶ These are calculated as the total labour force as a share of the total civilian population (aged 15 or over).



In addition to being a barometer of near term labour market changes, the youth cohort is one of the most vulnerable to any changes in conditions. Young people typically have unemployment rates considerably above those of other age cohorts, with past economic downturns (e.g. in 1991, 2001, and more recently the global financial crisis in 2009) showing that youth also tend to record sharper increases in unemployment and are slower to recover in comparison with other age cohorts.

A softer labour market over the past three years may also be contributing to a recent increase in the proportion of young people returning to, or continuing in, full time study for longer. Recent trends show that young people are experiencing a declining proportion of being employed full time, while at the same time there has been an increasing proportion of youth studying full time.

An area of concern is the number of the youth population considered not ‘fully engaged’ which averaged 77,700 people during 2015–16, or 22.9% of the State’s total youth population. This number has increased by around 4,000 persons since 2014–15 and is now above the national average of 21.9%.

The current subdued labour market conditions for Western Australia’s youth mean that they should be a very important component of this year’s Plan, particularly in terms of ensuring that they acquire appropriate training and preparation for entry into the State’s workforce, as this represents a critical stage in the beginning of any person’s career development and future work engagement.

The moderation in the State’s labour market over the past four years is also reflected in recent record high estimates of underemployment²⁷. The State’s underemployment rate as at May 2016 stood at 9.7%, with a sharp rise of 1.6 percentage points over the same time last year. This suggests that there are increasingly larger proportions of those who are employed and would like to work more hours, with the underemployment rate for Western Australia exceeding the national rate during 2015–16 for the first time since 2004.

Also associated with rising unemployment, Western Australia had an average retrenchment rate²⁸ of 1.6% over 2015–16 (i.e. the number of retrenchments as a percentage of total employment), which was above the national average of 1.3%. The same data shows that around 84,700 people were retrenched in Western Australia during 2015–16. In the quarter following retrenchment, around half (or 42,000 people) were subsequently able to find employment, while just over a third (or 29,900 people) were unemployed, and 15% (or 12,800 people) were not in the labour force. An analysis of media reports suggest the larger retrenchment announcements in Western Australia over the past year were mostly related to the Mining, Construction, and Professional, Scientific and Technical industries.

When considering labour market characteristics for the State it is useful to also look at differences between metropolitan and regional areas. In 2015–16, over three quarters (78.8%)

²⁷ The number of underemployed persons is made up of: part time workers who would prefer more hours, and are available to work; and full time workers who, for economic reasons, worked part time hours during the ABS Labour Force survey period. In contrast, those who are unemployed are those persons who were not employed during the Australian Bureau of Statistics reference week, and: 1) had actively looked for full time or part time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or 2) were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

²⁸ To dampen volatility, the retrenchment rate has been averaged over four quarters. The ABS calculates the retrenchment rate with the denominator being the number of persons employed in the middle month of the previous quarter. For example, to calculate a November retrenchment rate, the November month estimate of the total number of persons retrenched during the last three months is divided by the number of persons employed in August. The previous quarter’s employed estimate is used for the denominator as a proxy for people who held a job sometime in the last three months. (Source: ABS 6291.0.55.003. Nov 2015).





of the State's employees resided in Greater Perth, with an additional 8,700 employed persons compared to the previous year. An average of around 286,900 employees resided in the Rest of Western Australia during 2015–16, which was a decrease of 7,400 workers from the previous year. This decrease in employment in some of the regions is likely to be linked to the slowdown in resources construction projects.

Greater Perth recorded an average unemployment rate of 6.0% over 2015–16, which was slightly higher than the 5.8% recorded for the Rest of Western Australia. However, there is a high degree of variation in labour market conditions between the regions, which is highlighted by some significant differences in unemployment rates²⁹ which ranged from an average of 14.5% in the Kimberley during 2015–16, to 2.9% in the Pilbara. It is important to note that even within the Pilbara there was a range of 1.2% to 4.6% in unemployment rates for the local government areas that make up the Pilbara. Unemployment rates have also increased significantly over the past year for the Wheatbelt and Great Southern regions.

Table 4: Unemployment rates and Population by region in Western Australia

Region	Unemployment Rate		Population	
	2015–16	2014–15	2015	2014
Pilbara	2.9%	3.1%	65,859	67,503
Peel	8.6%	7.4%	131,893	128,798
South West	4.5%	4.3%	175,949	174,052
Mid-West	7.3%	7.1%	57,974	58,183
Gascoyne	8.5%	8.9%	9,904	9,959
Wheatbelt	6.1%	3.7%	73,582	73,886
Goldfields-Esperance	5.9%	5.3%	60,532	61,333
Kimberley	14.5%	12.9%	38,801	39,099
Great Southern	6.1%	3.8%	60,169	59,935
Perth	6.0%	5.5%	1,914,705	1,899,753

Source: Commonwealth Department of Employment, Small Area Labour Market data and ABS 3218.0

Some regions experienced a decline in population during 2015 and this may have impacted on the participation rate for the Rest of Western Australia of 68.7% being significantly lower than the previous year's rate of 70.4%. This may be reflected by the fact that the Pilbara, Mid-West, Gascoyne, Wheatbelt, Goldfields-Esperance and Kimberly regions all recorded a decline in total population between 2015 and 2014. Only the Peel, South West, Great Southern and Perth regions recorded an increase in population during this period. The participation rate of 68.2% for Greater Perth over 2015–16 was below that for the Rest of Western Australia of 68.7%.

This highlights that Western Australia's labour market is not homogenous, and is likely to continue to have a diverse mix of employment conditions and opportunities across the State.

The softer labour market conditions have also coincided with slowing labour supply. This is reflected in the State's annual population growth rate³⁰ declining to 1.2% in December 2015, after recording a record high of 3.7% three years prior in December 2012. In particular, net overseas migration has slowed considerably and net interstate migration is now negative.

²⁹ Source: Commonwealth Department of Employment, Small Area Labour Market (SALM) data. SALM estimates are subject to significant variability and should be viewed with caution. Results from this data set are derived from very small local populations and should not be relied upon for individual data points / results, but for longer term trends over time.

³⁰ ABS 3101.0 Australian Demographic Statistics, Dec 2015 (Spreadsheet: Table 4).



The decrease in net immigration has assisted the State's labour market to adjust without the unemployment rate increasing as much as it otherwise might have³¹.

Another factor to consider in relation to labour supply is the much lower population growth currently being experienced and expected over the next year in the State's 15 to 24 year old youth cohort³². The limited growth shown for the youth cohort relative to previous years suggests the supply of domestic graduates in the State in the next few years will be limited by these demographic trends.³³

A further factor impacting the overall labour supply relates to the ageing of the State's population. This remains a key issue for labour market participation both currently and into the future due to the expected decline in the level of participation in the labour market, on account of increasingly higher proportions of working adults being at (or close to) the typical retirement age.

At present, there is little sign that Western Australia is experiencing this to the same degree as the other States. This is partly due to the younger age demographic of the State's population (compared to Australia); while the current moderate economic and financial market conditions may mean that some workers in the State are pushing out their retirement intentions. However, with the oldest of the baby boomers now having turned 70 years of age, this is likely to impact negatively on the labour supply over coming years.

With demographic dynamics pointing to slower growth in the State's labour supply over the next few years alongside current and projected weak jobs growth, the trends in education and training are an important consideration, as the imperative remains strong for a continued healthy supply of skilled labour for the State, particularly in those occupational areas deemed as a priority.

While the number of qualifications awarded increased by nearly 5.7% from 2014 to 2015, there was a decrease of 4.0% in overall Government funded VET course enrolments (NTA Scope) in 2015 compared to 2014. This may be due in part to the labour supply issues for youth noted above, as well as the impact of the half year cohort³⁴ and other factors such the moderating economic conditions and outlook, the uncapping of university places and fee increases under FSWA.

Like VET, University completions have increased from 2014 to 2015 (by 3.9%), however commencements (for undergraduate and postgraduate degrees) in Western Australia also decreased in 2015 by 7.9% compared to the previous year. This again could be a reflection of youth demographics, the half year cohort and the moderating economic outlook for the State.

If this trend of declining overall enrolments continues for both VET and higher education into the future, this could impact negatively on the supply of skilled labour in the short through to the longer term.

³¹ Reserve Bank of Australia, Bulletin, The Labour Market during and after the Terms of Trade Boom, Davis, McCarthy, Bridges, March quarter 2016.

³² Source: Western Australian Planning Commission, WA Tomorrow projections (2015)

³³ It is important to note that Aboriginal people in Western Australia have a significantly faster growing youth population than that of the non-Aboriginal population. From the 2011 Census, almost half (46%) of the State's Aboriginal population was aged under 20, compared with 26% of non-Aboriginal people.

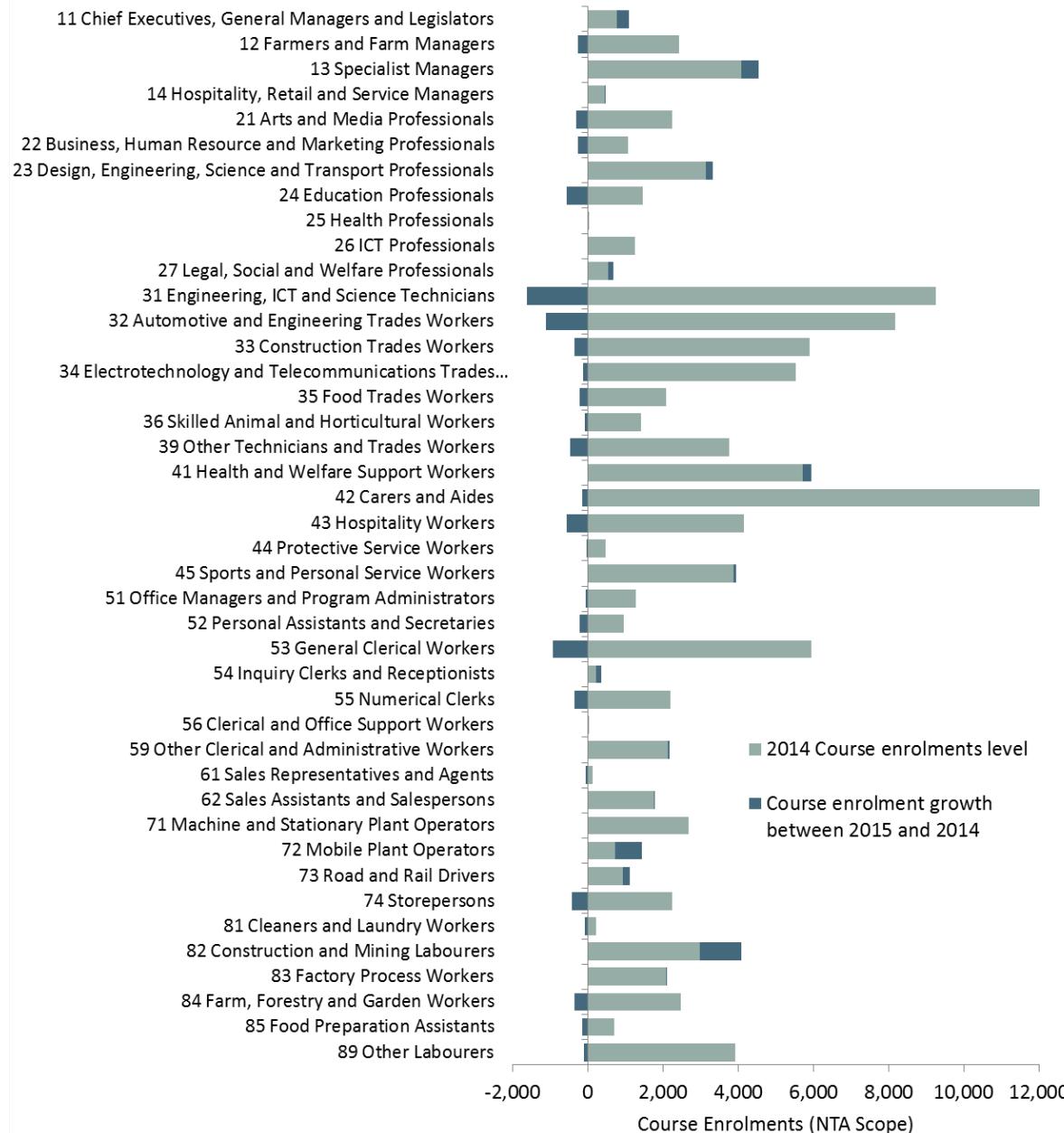
³⁴ The effects from the 'half year cohort' are also worth noting in relation to the supply of new qualifications. In 2014, the half year cohort entered Year 12. The impact of the half year cohort and its reduced size resulted in fewer students entering the university sector and VET system in 2015, along with an expected residual impact over 2016.





In terms of the supply of skills for specific industry needs, the following Figure 9 is a brief analysis of enrolments mapped to occupational groupings for VET and to field of study for university.

Figure 9: VET course enrolments (NTA Scope) by occupation, Western Australia



Source: VET Enrolment Data Collection, final full year data for 2015

Comparing this data to the broad employment trends explored earlier, it appears that the alignment between demand and supply is not consistent across individual industry areas. This is despite the overall increase in priority qualifications delivered which are directly mapped to the State's priority occupations.

While both the Mining and Construction industries increased in employment size over 2015–16, only the lower skilled occupations of construction and mining labourers and mobile plant operators increased their share of VET enrolments in 2015, whereas enrolments in priority occupations such as engineering, ICT and science professionals, automotive and engineering trades workers and construction trades workers (i.e. those courses with longer training times) all declined over the same period.



This could be explained by the current and forecast economic / labour market factors having a direct impact on employers' willingness to employ new workers, particularly those requiring a training contract under an apprenticeship. However, these factors cannot be attributed as the sole or the primary reason for such decreases. The declining apprenticeship (and traineeship) commencements in Western Australia are likely to reflect a number of factors (not all of which are economic by nature³⁵), such as:

- Slowing growth in the overall number in the State's youth cohort – those aged 15–24;
- Uncapping of University places;
- Fee increases (possibly making other alternatives like University / direct work slightly more attractive);
- Much greater competition from skilled workers returning from construction work on major resource sector projects (i.e. alleviating shortages in a range of trades across the State / obviating the need for hiring apprentices);
- A sharp increase in apprentice and trainee wages (the 2013 Australian Fair Work Commission decision raised wages by about \$100 a week – representing an increase of almost a third in apprenticeship / traineeship wages); and
- Past cuts to government incentives (i.e. "...changes to a number of government financial incentives between 2012 and 2013 — including the removal of employer standard commencement, recommencement and completion incentive payments for existing workers in training not on the Department of Education's National Skills Needs List (NSNL) — appear to have contributed to a marked decline in the number of commencements in non-trade occupations from mid-2012".³⁶

Another area which also saw some differences in alignment between employment trends and the number of qualifications being studied was the Accommodation and Food Services industry. While this industry increased in employment size by 6,600 workers over 2015–16, the share of course enrolments related to hospitality workers and food trades workers declined in 2015.

One area where there appeared to be an alignment is Health Care and Social Assistance. The growth in VET sector course enrolments (NTA scope) for carers and aides, and health and welfare support officers, which increased their combined share of total course enrolments to 13.2% in 2015 from 12.7% in 2014, coincides with the sector's employment growth resulting from an increase in population and an ageing population.

It is worth noting that labour market conditions may change during the time period between commencing and completing a qualification. Generally VET sector qualifications take between 12 to 18 months and this may allow more flexibility to meet market demand in a timely manner in comparison to a university qualification which will generally be for a period of at least three years.

Like VET, University commencements did not necessarily reflect the employment patterns in the various industry areas.

³⁵ For example, beside the recent changes to incentives already identified by the DTWD, other non-economic drivers can include views held by prospective apprentices and trainees on other alternatives (e.g. immediate work, other VET / university study options, etc.); school leaver numbers / young age cohort growth rates; longer term workforce planning and other strategic planning considerations at the firm level by businesses; apprenticeship & traineeship policy and related regulatory changes at both a state and federal level (and in particular the 2013 decision by the Fair Work Commission for the first-year pay rate for apprentices to be increased from 42% to 60% of the adult rate); among many other factors.

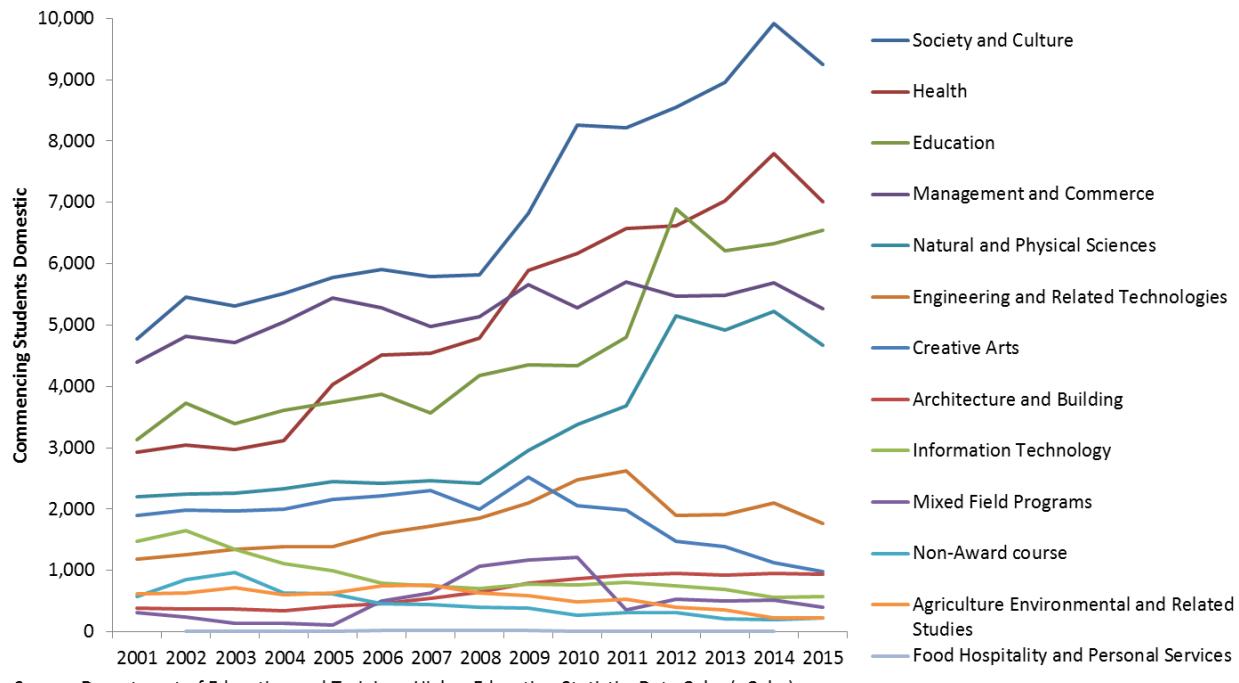
³⁶ Source: Productivity Commission Report into the Workplace Relations Framework (page 270) December 2015.





The field³⁷ of engineering recorded a declining share of total commencements from 5.3% in 2014 to 4.8% in 2015, as well as natural and physical sciences declining from 13.1% in 2014 to 12.6% in 2015. These declines coincide with the sharp decrease in employment for the Professional, Scientific and Technical Services industry, which recorded an annual decrease in employment of 13,100 persons over 2015–16.

Figure 10: University commencements by field of education, Western Australia



Source: Department of Education and Training - Higher Education Statistics Data Cube (uCube)

The fields of society and culture³⁸ and management and commerce likewise showed declines, which are also somewhat associated with employment in the Professional, Scientific and Technical Services³⁹ industry.

It should be noted that softer labour market conditions may also be impacting upon university students deciding to continue on with further study after completing a bachelor degree, with post graduate students increasing their compositional share of total university enrolments with 20.7% in 2015, from 20.2% in 2014 and 19.9% in 2013.

However, there are examples where enrolment choices are not always aligned to labour market trends. The share of new university commencements in education increased from 15.9% in 2014 to 17.7% in 2015, despite a decrease in employment of around 4,000 workers in the industry of Education and Training during 2015–16.

Also, recent strong employment growth of around 5,500 workers in the Health Care and Social Assistance industry over the past year did not mean an increase in university enrolments in the field of health, which recorded a decline in total share to 18.9% in 2015 from 19.6% in 2014.

These examples indicate that there could be many factors other than perceived employment opportunities at play which may influence the study choices of individuals, both at university

³⁷ Source: ABS 1272.0 Australian Standard Classification of Education (ASCED).

³⁸ The education field of *society and culture* includes Political Science, History, Psychology and Law etc.

³⁹ The Professional, Scientific and Technical Services industry includes architectural, engineering, legal, accounting, advertising, market research, consulting, veterinary and computer system services.



and in VET. These include an individual's current skills set, aptitudes and preferences, as well as cost, access to financial study assistance and availability of places.

The transitioning of Western Australia's labour market is reflected in the makeup of the DTWD's State Priority Occupation List (SPOL) for 2016, which takes into account both demand and supply side factors.

This market moderation has seen a reduction in the number of occupations experiencing unmet demand (sometimes referred to as Skills Shortages) compared to SPOLs prior to 2013. Notwithstanding this, the number of occupations being rated as a priority has dropped to around 250 in recent years (down from well in excess of 300 occupations during the tight labour market of the resources boom years). Besides market driven concerns, the SPOL also equally looks at the role, position and impact the occupation has within an industry and the wider Western Australian economy, otherwise known as 'criticality'. Any non-market factors such as regulatory changes that are potentially impacting occupations are also taken into consideration on a case by case basis.

An occupation is defined as 'critical' if it is highly important to an industry's operations and/or to the State's ongoing growth and development. This in turn means that it is essential that there is a constant, reliable pool of skilled workers into that occupation. In addition, a 'critical' occupation is one that requires specialised skills that are obtained in formal education and training prior to employment.

State Priority 1 occupations are deemed both 'critical' and having unmet demand, while State Priority 2A occupations are 'critical' but showing no demonstrated unmet demand now and into the near future. State Priority 2B occupations have demonstrated unmet demand but are not deemed 'critical'. State Priority 3 occupations are those occupations ranked lower on the SPOL but assessed as still having industry or regional specific issues warranting recognition. 'Other Identified Occupations' are those occupations on a watch list due to some evidence being available suggesting that issues of unmet demand could emerge in the future.

Table 5: ANZSCO Major Groups by SPOL Priority for 2016, compared to 2015

ANZSCO	State Priority 1	State Priority 2A	State Priority 2B	Priority 3	Total	Other Identified Occupation
SPOL 2016						
1. Managers	1	17	1	4	23	9
2. Professionals	26	106	-	7	139	7
3. Technicians and Trades Workers	-	19	2	37	58	16
4. Community and Personal Service Workers	-	4	1	15	20	9
5. Clerical and Administrative Workers	-	1	-	2	3	9
6. Sales Workers	-	-	-	3	3	1
7. Machinery Operators and Drivers	-	-	-	2	2	5
8. Labourers	-	-	-	2	2	1
Total	27	147	4	72	250	57
SPOL 2015						
1. Managers	1	13	3	4	21	13
2. Professionals	22	111	-	1	134	12
3. Technicians and Trades Workers	-	23	3	31	57	19
4. Community and Personal Service Workers	-	8	-	10	18	12
5. Clerical and Administrative Workers	-	-	1	3	4	6
6. Sales Workers	-	-	-	3	3	1
7. Machinery Operators and Drivers	-	-	-	2	2	9
8. Labourers	-	-	-	3	3	4
Total	23	155	7	57	242	76

Table 5 shows the relatively small number of those occupations having unmet demand (State Priority 1 and 2B) as a proportion of the total (just over 12% of the SPOL occupations





and only about 4% of all occupations assessed). The majority relate to 'critical' occupations that require maintenance of supply (State Priority 2A). As stated above, this contraction of occupations with unmet demand is a reflection of the moderating labour market in recent years.

In addition, the table shows the SPOL has skilled occupations which are primarily from the Managerial, Professional, and Technicians and Trades Worker grouped occupations. These are at the higher end of the skill levels, which correlates to other research indicating that the future needs of industry will focus around higher level skills. This is reflected in the methodology of the SPOL which is designed around the principles of:

- High levels of skill - the occupation must have specialised skills that require extended learning and preparation time.
- Clear and open pathways - The occupation should have clear education and/or training pathways or qualifications that can be obtained within Australia, and where the skills learnt can be matched to the requirements of the occupation.
- Occupational impact - an occupation will be considered if any disruption in its supply would result in significant impacts more broadly across the industry or the State economy.

Table 6 below provides a further breakdown at the next more detailed occupational level for 2016, reinforcing the pattern of the higher skilled groupings having a high proportion of eligible SPOL occupations receiving priority status, in particular those in the professional category. The two most dominate occupational grouping relate to Health Professionals and Design, Engineering, Science and Transport professionals.



Table 6: ANZSCO sub-groups by SPOL Priority for 2016

ANZSCO Group	State priority 1	State priority 2A	State priority 2B	Priority 3	Total Priority Occupations	Total Eligible Occupations
11 - Chief executives, general managers and legislators	-	1			1	2
12 - Farmers and farm managers	-	5		1	6	23
13 - Specialist managers	-	10		2	12	38
14 - Hospitality, retail and service managers	1	1	1	1	4	21
21 - Arts and media professionals	-	-			0	28
22 - Business, human resource and marketing professionals	-	3			3	51
23 - Design, engineering, science and transport professionals	3	34		4	41	75
24 - Education professionals	-	7		1	8	17
25 - Health professionals	22	48			70	82
26 - ICT professionals	-	6		1	7	21
27 - Legal, social and welfare professionals	1	8		1	10	23
31 - Engineering, ICT and science technicians	-	5	1	9	15	40
32 - Automotive and engineering trades workers	-	4		8	12	30
33 - Construction trades workers	-	2		11	13	15
34 - Electrotechnology and telecommunications trades workers	-	6		4	10	15
35 - Food trades workers	-	2		2	4	5
36 - Skilled animal and horticultural workers	-	-	1	2	3	12
39 - Other technicians and trades workers	-	-		1	1	42
41 - Health and welfare support workers	-	1		8	9	16
42 - Carers and aides	-	3		4	7	13
43 - Hospitality workers	-	-			0	5
44 - Protective service workers	-	-		2	2	7
45 - Sports and personal service workers	-	-	1	1	2	23
51 - Office managers and program administrators	-	1			1	5
52 - Personal assistants and secretaries	-	-			0	3
53 - General clerical workers	-	-			0	2
54 - Inquiry clerks and receptionists	-	-			0	6
55 - Numerical clerks	-	-			0	6
59 - Other clerical and administrative workers	-	-		2	2	23
61 - Sales representatives and agents	-	-			0	9
62 - Sales assistants and salespersons	-	-		3	3	6
63 - Sales support workers	-	-			0	1
71 - Machine and stationary plant operators	-	-		1	1	28
72 - Mobile plant operators	-	-			0	11
73 - Road and rail drivers	-	-		1	1	7
74 - Storepersons	-	-			0	1
81 - Cleaners and laundry workers	-	-			0	3
82 - Construction and mining labourers	-	-			0	9
83 - Factory process workers	-	-		2	2	3
84 - Farm, forestry and garden workers	-	-			0	5
89 - Other labourers	-	-			0	11
Total Eligible Occupations	27	147	4	72	250	743

OUTLOOK

In respect to the short term outlook, Western Australia's overall economic growth is expected to be moderate in the years ahead.

According to the Western Australian Department of Treasury, the State's economy is forecast to have increased by 1.0% in 2015–16. Economic growth in 2016–17 is then forecast to increase marginally to a rate of 1.25%, before rising to 2.5% in 2017–18. While these forecasts show broadly healthy rates of growth are expected, they are in part predicated to occur largely due to increased export volumes being a major driver of the State's growth, rather than significant increases in domestic economic activity within Western Australia. While the volume of exports is rising, the income received for them has been falling due to lower commodity prices and this has only partially been moderated by the depreciation in the Australian dollar.

In addition to the expected decline in resource sector construction activity in the State (albeit from a high base), the pipeline of work still to come for residential construction (i.e. work already committed to or underway) has also begun to decline (again from a high base).



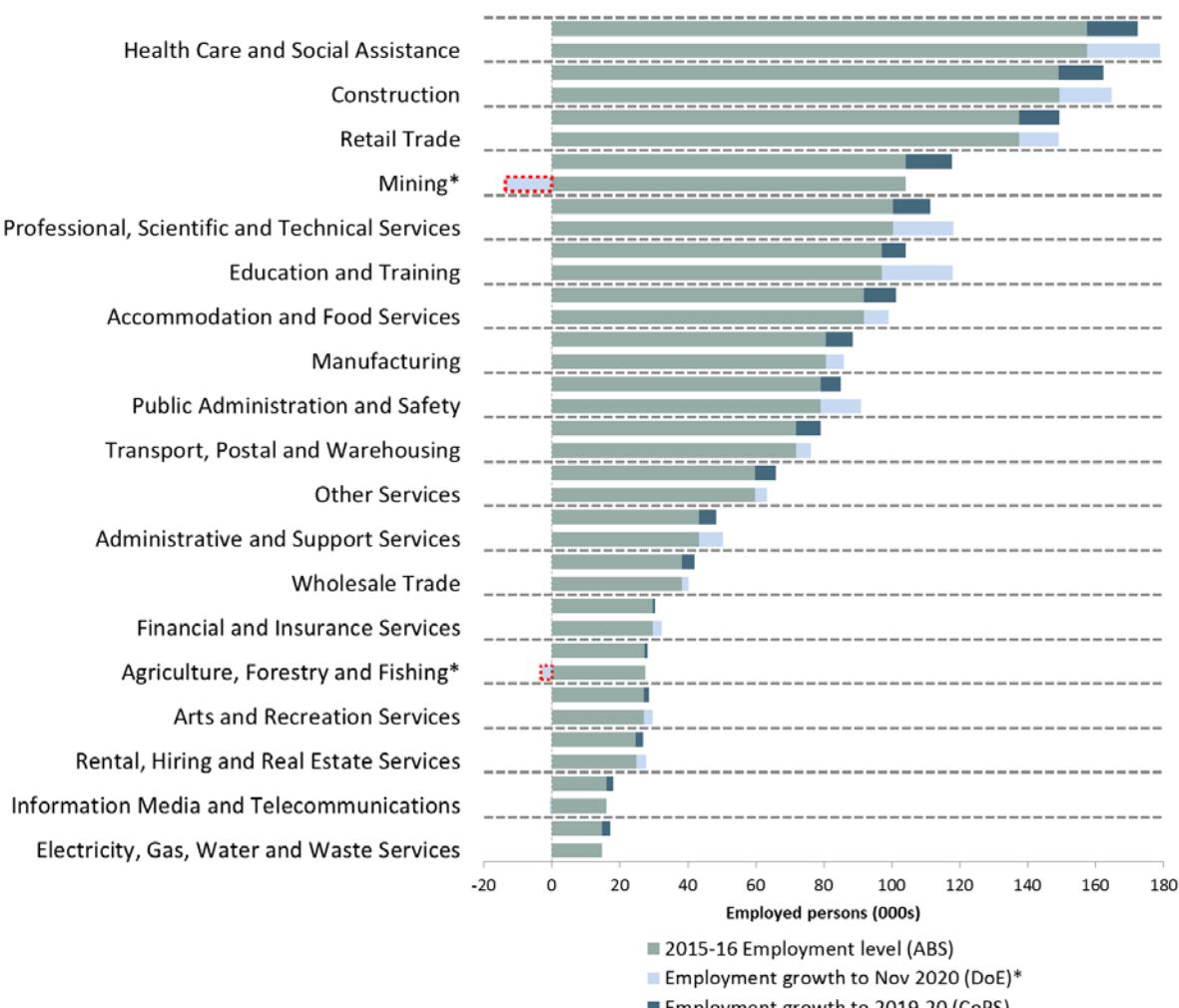


Beyond this current pipeline of work, residential construction activity is expected to wane in future years, with the Western Australian Treasury forecasting that dwelling investment will contract by 8.75% in 2016–17.

In respect to the overall outlook for jobs growth in Western Australia over the next four year period (to around mid / late 2020), there are some considerable differences in the projections of different forecasters. For instance, the WA Department of Treasury is forecasting employment growth over the next four years of 4.5%, while the private sector forecaster Deloitte Access Economics (DAE) is forecasting slightly lower jobs growth for the State of 4.1% for the same four year period. Victoria University's Centre of Policy Studies (CoPS) forecasts show total jobs growth of 9.4% over the period, whereas the Australian Government's Department of Employment (DoE) is predicting jobs growth for the State at 6.9%⁴⁰.

Employment growth in health related occupations is expected to continue, further reinforced by industry employment forecasts from CoPS and also the DoE. These two sets of forecasts both show that Western Australia's Health Care and Social Assistance sector will remain the State's highest employing industry over the next four or so years (out to 2020). This in part reflects the ageing of the State's population.

Figure 11: Employment Forecasts by Industry for Western Australia



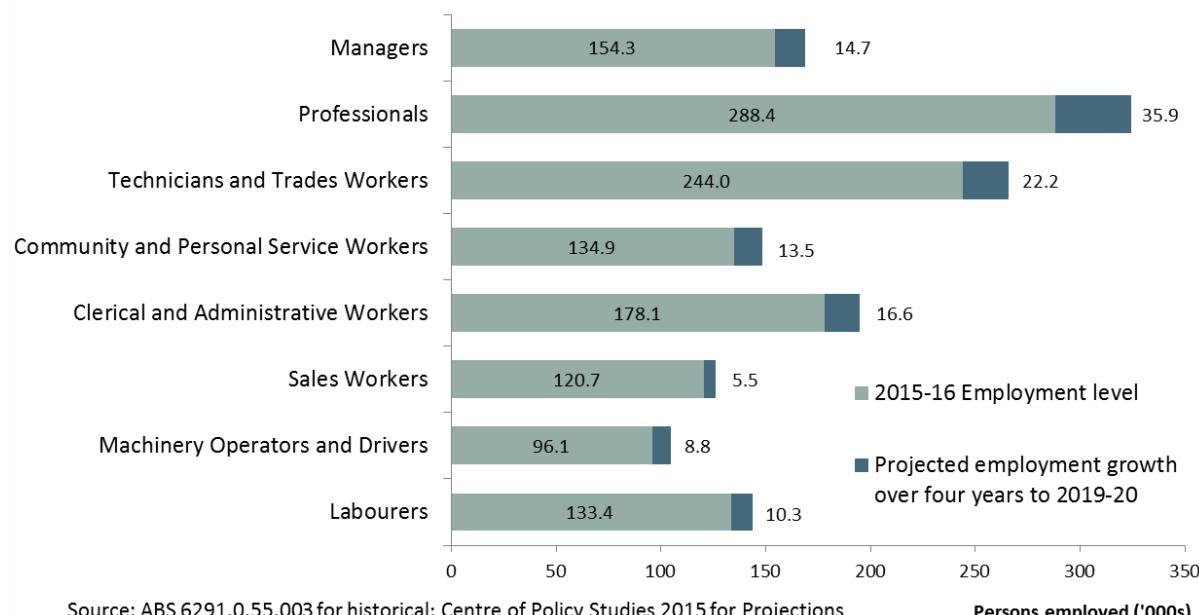
⁴⁰ Both sets of forecasts cover slightly different four year periods – the CoPS forecasts are for the four years up to the middle of 2020 while the DoE forecasts are out to the end of 2020.



While there are differences between the CoPS and DoE forecasts, a consistent theme is the projection that the Health Care and Social Assistance sector, along with Construction; Retail Trade; and Professional, Scientific and Technical Services; and Education and Training are together expected to be responsible for over 45% of jobs growth in the State by around 2020. This underscores the expected broadening of the State's employment base to a more services orientated economy.

In addition to the changing mix of skill requirements across the State's labour market, it is expected that most employers will increasingly look for applicants who hold some level of post school qualifications, and who have higher skill levels and experience. This is reinforced by the employment projections on a qualifications basis which show growth over the next few years will be concentrated in those jobs requiring at least a Certificate level or higher. Demand for low and unskilled labour is expected to experience a slower rate of employment in comparison.

Figure 12: Western Australia projected employment growth by occupation (from 2015–16 to 2019–20)



Source: ABS 6291.0.55.003 for historical; Centre of Policy Studies 2015 for Projections

Persons employed ('000s)

However, the employment growth forecasts referred to earlier only show the demand for labour that is expected to arise from the *net* number of 'new' jobs generated (i.e. the total number of new job positions created across the State, less the total number of any job positions lost).

They do not include the underlying 'churn' rate of workers required just to maintain employment levels, which is known as the 'net replacement rate'. The Centre for the Economics of Education and Training (CEET) at Monash University produces forecasts of this rate, with the latest CEET forecasts suggesting the State will likely experience an annual average net replacement rate of 2.1% over the four year period to 2019-20.

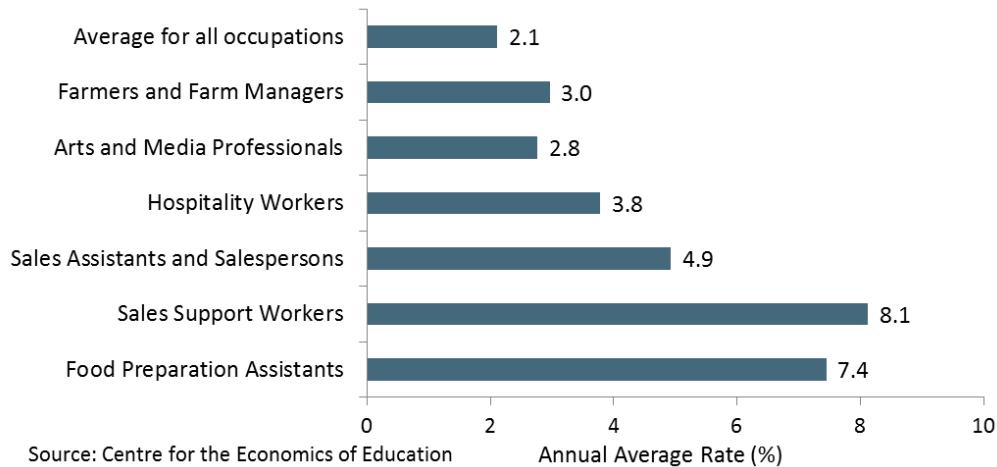
The forecast annual average net replacement rate of 2.1% is notably higher than CEET's previous forecast for the State for the four year period 2013 to 2017, which was for an estimated annual average replacement rate of 1.9%. In part the current higher rate is likely due to the ageing of the State's core workforce (those aged between 15 to 64 years) across a range of occupations.





Figure 13 shows Net Replacement Rates for selected occupations that have a significantly higher rate than the overall average of 2.1% for the State. The occupation of farmers and farm managers has a noticeably older median age for their workers and this is the main reason for the high net replacement rate for this occupation. However, there are other factors to consider in relation to the level of jobs churn, such as the compositional impact of lower paid entry level jobs (such as Hospitality Workers and Sales Workers) which typically have high rates of turnover.

Figure 13: Forecast Net Replacement Rates (%) by selected occupation, Western Australia, for 2015 to 2019



The CEET forecasts show that to maintain Western Australia's current workforce levels, around 117,100 job openings will need to be filled over the four year period to 2019–20. Jobs churn is now the highest component of total job opportunities, and higher than the WA Treasury forecasts of an additional 60,400 people being employed over the next four years.

With overall labour demand in the State expected to remain modest in the years ahead, similar trends expected for growth in labour supply mean that most forecasters expect the State's unemployment rate to remain at an annual rate of around 5.75% to 6.75% over the next two years. Of concern are the implications for youth unemployment, as it is currently at a rate almost twice that of the State's overall unemployment rate and this remains a key issue.

Table 7: Headline forecasts for the State's labour market

FORECASTER	Employment growth (%)			Unemployment rate (%)		
	2016–17	2017–18	2018–19	2016–17	2017–18	2018–19
WA Treasury (Budget May 2016)	0.25	0.75	1.5	6.75	6.5	6.25
DAEconomics (June 2016)	0.4	0.8	1.2	6.2	6.3	6.3
WA CCI (Dec 2015)	n/a	n/a	n/a	6.0	5.75	n/a
CoPS Victoria University (2015)	2.3	2.8	2.2	n/a	n/a	n/a
Average (rounded)	1.0	1.4	1.6	6.3	6.2	6.3

While various forecasters will have different forecasting approaches, models and assumptions, the State's current dynamic economic environment makes it very difficult for any forecaster to accurately predict movements in the State's labour market (particularly for specific industries like Construction and Mining).

Accordingly, caution needs to be applied in respect to any assumptions about the future state of Western Australia's labour market, as there are many uncertainties to be considered. In addition to uncertainties and risks pertaining to domestic trends in the State's domestic workforce, the State's economy remains particularly exposed to a very dynamic global economy.



STATE TRAINING BOARD RESEARCH

SCENARIOS PROJECT

Such degrees of uncertainty were a key reason why the State Training Board adopted a scenarios-based approach to develop potential strategies and policies to address potential and plausible long term workforce futures for Western Australia.

This project initially involved the development and econometric modelling of four distinct scenarios, where each scenario represents a plausible and internally consistent ‘alternative future’ path for the State’s workforce in discrete blocks of time out to 2030⁴¹. This work was undertaken by Deloitte Access Economics (DAE) and the findings were outlined in its *Workforce Scenarios and Projections (2013)* Report (the DAE Report).

Common to all scenarios, the industries of Health Care, Education, Professional Services, Finance Services, and Public Administration are projected over the period 2012 to 2030 to have faster than average employment growth, while slower than average growth rates are projected for Agriculture, Mining, Manufacturing, Utilities and Retail Trade.

The forecasts for each of the scenarios over the short term (out to 2020) shows that some (but not all) of the State’s industries are expected to have some sizable variation in respect to their future employment growth potential depending on which scenarios, with large variances occurring in the industries of Health Care and Social Assistance; Mining; and Professional, Scientific and Technical Services.

However, the industry with the greatest variation in employment growth across the scenarios was the Construction industry. This underscores the variable nature of the industry due to cyclical effects (e.g. the housing cycle) combined with the uncertainties currently surrounding the State’s potential for construction work on future resource sector projects. A further key point and common theme of the scenario forecast ranges was that the Health Care and Social Assistance sector in the State is expected to be a substantial generator of jobs out to 2020.

The scenario forecasts also provide splits of employment growth by qualification level. These show that employment growth in the State out to 2020 is mostly expected to come from those jobs requiring at least a Certificate level or higher. In stark contrast, the same forecasts show that the pool of employed persons without any post school qualifications is projected to have much slower growth over the same period.

These factors all underscore the importance of higher level skills and qualifications, and courses that provide clearly articulated pathways into those higher level qualifications.

The key findings of the DAE report were:

- No matter what scenario plays out, it is highly likely that over the period to 2030 the overall demand for qualifications will be greater than the supply of qualifications;
- In particular, there will be an excess demand for higher level qualifications;

⁴¹ The four scenarios are not meant to be specific projections of the State’s workforce future, nor do they represent simple extrapolations of past trends. Rather, each of the scenarios represents a specific and quite distinct ‘alternative vision’ of the State’s potential future. Such scenarios were done with an explicit recognition that no single set of forecasts is likely to be fully correct, such that modelling quite distinct scenarios can help deal with the uncertainties and risks of the future, as well as developments that can be reasonably foreseen.





- The modelling shows that over the longer term, there will likely be a shortfall in the number of university degrees, advanced diplomas and diplomas required to meet the State's workforce needs out to 2030;
- The modelling also showed that the propensity to hold multiple qualifications is expected to continue to rise over time. This includes further skills deepening (gaining an additional qualification at a higher level), and skills broadening (gaining an additional qualification at the same level as one already held);
- The State faces limited demographic growth for the youth cohort out to 2020, which is reducing the number of new entrants to the workforce; and
- Any reduction in funding for Vocational Education and Training and/or universities is likely to compound the excess demand for qualifications, and therefore the supply of skills to the Western Australian labour market;

Further to these findings, some of the critical issues identified in the research show that:

- The ageing population will result in strong demand for health and aged care workers, and also at the same time restrict the supply of workers to the labour market;
- Industry structural adjustment will be a challenge, but plays out differently over a range of different scenarios, leading to great uncertainty and potential volatility in the composition and size of the workforce in different industries;
- Technology will have a profound effect on the workforce, both in terms of the opportunities it offers for improved productivity, and the disruption it causes to business processes in all industry sectors; and
- Overseas migration will continue to play an important role as a swing variable in meeting the demand for skills across a range of scenarios.

In addressing the findings of DAE, the Board consulted widely with industry and tertiary education providers (VET and university) stakeholders on possible implications of Western Australia's long term workforce challenges. This was done in the context of the State's aspiration to move to a knowledge-based economy.

In summary, the Board's research verified the need to:

- Support young people to reach their full potential;
- Improve VET and university pathways and collaboration;
- Harness the benefits of innovation and technology;
- Improve the adaptive capacity of the workforce; and
- Prepare for an ageing population and workforce.

INNOVATION AND TECHNOLOGY PROJECT

Further to the scenarios, the State Training Board is currently undertaking a project which will examine the implications of innovation and technology on the State's key industries, workforce, and skills requirements.

The project aims to appraise how current and emerging innovation and technology advances are changing the nature of work. It will take into account factors impacting the demand for skills, and identify those foundation skills that will enable Western Australians to participate in the knowledge-economy of the future as job seekers, entrepreneurs, business owners and innovators. The project will identify possible changes in policy necessary to ensure an appropriate response to these skills needs and strategies.

OTHER RESEARCH

CEDA RESEARCH REPORT – VET: SECURING SKILLS FOR GROWTH

In August 2016, the Committee for Economic Development of Australia⁴² (CEDA) released the research report, *VET: securing skills for growth*.

The report seeks to assess the current outcomes of the VET sector in Australia and propose ways the system could be improved in order to meet the workforce skills required for Australia's economic growth. In particular the report examines:

- Reskilling priorities for assisting Australia's economic transition;
- The role of VET within the broader education strategy of Australia;
- The role VET plays in securing Australia's future skills; and
- What outcomes do we want from the VET system?

The report examines some of the key issues being pursued by skills ministers through the COAG Industry Skills Council and includes the following key recommendations:

- A new VET agreement to ensure relevancy and certainty of national VET funding;
- A re-think of vocational qualifications to meet the diverse skills needs of future job requirements;
- A tightening of oversight to remove poor quality providers and protect consumers; and
- A system focused on quality through better qualified VET training providers.

A copy of the CEDA report can be found at:

<http://www.ceda.com.au/research-and-policy/research/2016/08/vet-skills-for-growth>

⁴² CEDA is a national organisation with members from business, government, not-for-profit organisations and academic institutions. CEDA has a national membership of over 700 organisations.





SUMMARY OF ISSUES

Within the context of the national agreements seeking to increase participation in VET, particularly at Certificate III and above, Western Australia's VET system in recent years has focused on meeting the States' labour market priorities.

This has been done through the policy and planning settings, underpinned by the outcomes of DTWD's State Priority Occupation List. While participation in publicly funded VET overall has declined, there has been an increase in the proportion of those students enrolling in priority courses, which are generally for Certificate III and above qualifications.

This has occurred in parallel with a moderating labour market driven by the effects of the resource sector investment downturn. Employment growth has been negligible across most industry areas (and mostly in part time), which has occurred along with a decreasing volume of working hours, moderate wages growth, decreases in job vacancies, rising unemployment, and increasing underemployment and retrenchments for existing workers.

In particular, the fact that youth unemployment continues to be almost double that of the State's overall unemployment rate and that the employment of apprentices and trainees is still declining is of concern.

This all indicates a continuation of soft conditions for Western Australia in the foreseeable future, reinforced by waning project and housing investment in the State.

The employment growth that has occurred across industry areas is mixed, which may be an indication of a transition towards a more broader-based economy. The employment growth forecasts out to 2020 seem to confirm this.

On the supply side, the State's population growth has slowed, particularly in the 15–24 year old cohort, alongside the ageing demographic of the workforce and forecasts of a higher net replacement for existing jobs.

This situation is evident at both State and regional levels, and highlights the imperative to maintain a strong focus on education and training.

Research undertaken by the State Training Board indicates that Western Australia's future workforce will require more people with higher level qualifications, including multiple qualifications, across a range of industry areas, with an adaptive capacity and the ability to deal with innovation and technology. This includes both new entrants to the workforce and existing workers.

The Board's work has also highlighted the need to prepare for an ageing population and workforce.

Recent State Training Plans have recommended a focus on:

- **Occupational priorities** – continued focus on apprenticeships and traineeships, priority industry qualifications and essential foundation skills;
- **Youth** – continued focus on foundation skills training and stronger emphasis on pathways to higher level qualifications and/or employment;
- **Under-represented groups** – continued focus on foundation skills training and emphasis on training for Aboriginal people, people with a disability and those living in regional and remote areas; and



- **Ageing population** – continued emphasis on training for health and community services occupations.

Based on the issues identified in this paper, it is likely these priorities will continue to be important in the next State Training Plan.

