

Are skill sets booming? An analysis of training package skill sets

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National Centre for Vocational Education Research



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Preface

In considering the project aims to investigate the reporting, uptake and utility of skill sets in the VET system it is important to understand where skill sets sit within the overall VET policy landscape and how they are conceptualised, defined and reported.

In November 2015, COAG Industry and Skills Council agreed to a suite of six reforms to training packages and accredited courses which included ‘foster[ing] greater recognition of skill sets’, not only as a means of increasing an individual’s chance of employment, but also for meeting licensing requirements and as a ‘taster’ to employment and full qualifications. Skill sets, they acknowledged, required greater recognition within the training system, and better useful and consistent information for consumers and employers.

As part of the current review of the Australian Qualifications Framework (AQF), the AQF Review discussion paper comments that:

... workplace change may require more reskilling or upskilling, people want faster, cheaper, self-directed and on-demand learning. Employers prefer shorter, sharper education and training ...

The AQF review is considering how shorter form training including skills sets may be assigned a credential, sometimes referred to as a micro-credential, but goes on to state that:

... inclusion of any shorter form credentials in the AQF should be driven by learner needs and provider responses to those needs, and not by an intention to expand the scope of programs subject to formal regulation and quality assurance through the AQF.

The Joyce Review of Australia’s VET system, ‘Strengthening Skills’ stated:

There is currently no consistent definition of what a ‘micro-credential’ is in Australia. The AQF review uses the term ‘shorter form credentials’ to describe the range of training that is shorter than a qualification and not currently included in the AQF.

Some shorter form credentials are available in training packages and are nationally recognised. Skillsets are groups of accredited units of competency that together form a ‘skillset’ which is a level down from the full AQF qualification. This Review heard little commentary about skillsets, which suggests that they are not widely used or understood.

Other shorter form credentials have no mapping to the AQF, for example, the current Australian system does not allow industry, students or employers to capture micro-credentials or ascertain their value against the AQF, meaning they lack any sort of national currency.

As it currently stands, the formal definition of a skill set is that set out in the Standards for Registered Training Organisations (RTOs) 2015:

... a single unit of competency or a combination of units of competency from a training package which link to a licensing or regulatory requirement, or a defined industry need.

This definition is arguably open to interpretation as it could mean that it only refers to *training package* skill sets, or alternatively that it refers to *any* skill set, so long as it is made up of units from a training package.¹

1 <<https://www.voced.edu.au/content/glossary-term-training-package>>.

Ultimately this is a moot point however, as only training package skill sets are nationally recognised and recorded on the National Register of Vocational Education and Training (training.gov.au). As a consequence, the current VET statistical standard (AVETMISS 8.0²), which came into effect in 2018, only recognises training package skill sets for national reporting purposes³.

This wasn't always the case though and prior to the current skill set definition and version of AVETMISS, skill sets were more broadly conceived and reported.

In 2006, the then National Quality Council defined skills sets as: 'single units or combinations of units which link to a license or regulatory requirement, or defined industry need'.

The key difference between the NQC definition and the current definition is the absence of any reference to training packages.

From 2014 until 2017, this broader NQC definition in conjunction with version 7.0 of AVETMISS, enabled the reporting of skills sets other than those recognised in training packages, and which were labelled 'locally accredited skill sets'. These skill sets are typically developed and reported by RTOs and state and territory governments to suit local needs and could include modules and subjects outside of training packages.

Even under this broader definition though preliminary analysis indicates significant under-reporting of all training activity that could be more broadly considered skill sets. In 2018, there were over 2.5 million students enrolled in subjects that were reported as not being associated with qualifications, accredited courses or training package skill sets. Furthermore, the analysis indicates that many of these students are enrolled in combinations of units that have likely been developed and offered to students as non-nationally recognised skills sets, or in other cases, are enrolled in nationally recognised skills sets but not reported as such.

In an environment where the call for more modularised, just in time training is expected to increase to meet the demands of the future workforce, the data suggests there are issues of policy, definition and reporting practices that warrant attention.

Bearing all this in mind, the research project into the uptake of skill sets is being undertaken in two parts. This first report is specifically confined to nationally recognised Training Package skill sets. The second report will undertake further analysis of all student enrolments in units or combinations of units that are not nationally recognised or reported as skill sets, to gain a more complete understanding of the nature and extent of skill set uptake and utilisation in the national training system.

2 <<https://www.ncver.edu.au/rto-hub/what-is-avetmiss>>.

3 Government skills agencies are still able to assign a non-training package endorsed skill set identifier, which is not formally recognised, for government funding and reporting purposes.



About the research

Are skill sets booming? An analysis of training package skill sets

John Stanwick and Gitta Siekmann
National Centre for Vocational Education Research

Skill sets have become recognised as an important short form of training for the modern world of work. They are seen to have a variety of purposes, including upskilling, compliance and licensing, meeting a defined industry need and as an entry pathway to further training. An analysis of nationally recognised or training package skill sets forms the specific focus of this report. The investigation uses data from the National Register of VET and the National Provider Collection – Total VET Activity.

The report identifies how much training package skill set activity is occurring and where, with the findings indicating that activity is clustered around only a small number of skill sets and a small number of training packages. The next phase of work will examine the extent to which skill set activity (training package and other) may in fact be occurring in those instances where the training is being reported as a subject enrolment (and not attached to any program). This will further our understanding of how much of this activity is occurring.

Key messages

- The numbers of skill sets in training packages have grown over time, from 20 in 2008 to a little under 1500 existing skill sets by 2019. These skill sets are much more prevalent in some training packages than others, with over 200 skill sets in the Aeroskills Training Package, and seven current training packages with no skill sets at all.
- Reported enrolments in training package skill sets have grown from about 58 000 in 2015 to over 96 000 in 2018. The largest skill set in terms of enrolments in 2018 was 'Responsible service of alcohol', followed by two 'Work zone traffic control' skill sets.
- Reported enrolments in 2018 were dominated by just a small number of skill sets in a small number of training packages. Many of the skill sets with high numbers of enrolments were compliance-related or safety-related, with some of these being refresher courses.
- The analysis overall indicates that training package skill sets are not well utilised, with only about 16% of them having any reported enrolments for each of the years 2015 to 2018.
- It is interesting to observe that, despite the definition of a skill set referring to licensing or regulatory requirements, only four of the 29 units designated by Safe Work Australia as high-risk work licences are incorporated as skill sets in training packages.
- The vast majority of skill sets were funded through fee-for-service arrangements, with government-funded training only accounting for about 10% of skill set activity in 2018.
- The data, however, suggest that participation in skill sets can be stimulated through government subsidies, as evidenced by the rise in government-funded activity in 2016, when New South Wales provided significant government funding for training package skill sets.

- Reported skill set enrolment activity was dominated by two states in 2018: New South Wales and Queensland, which between them accounted for over three-quarters of the enrolments.
- Enrolments tended to be by students who were male (66%) and/or were aged over 25 (73%). In addition, over a half stated being employed (58%) and 41% stated already holding a certificate III or higher-level qualification.

Simon Walker
Managing Director, NCVER

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Executive summary

This report presents an analysis of nationally recognised, or training package, skill sets, which are defined as:

A single unit of competency or combination of units of competency from a training package which link to a licensing or regulatory requirement, or a defined industry need.

(Australian Skills Quality Authority 2015)

The data for this analysis is drawn from National Provider Collection – Total VET Activity and the National Register of VET. Caution needs to be applied to the interpretation of the enrolment data due to significant under-reporting of these data. The analysis in this report therefore refers to data that have been reported as training package skill set data.

Skill sets and other forms of short course training are the subject of much discussion in relation to lifelong learning including upskilling and reskilling and also in terms of meeting the skilling needs of industry. In the vocational education and training (VET) sector, skill sets have now become firmly embedded in the training package landscape. From just 20 in 2008, by 2019 there were just under 1500 existing training package skill sets.

While skill sets are found in most training packages, their distribution across training packages is skewed, with just five training packages accounting for about 40% of skill sets in 2018, the largest being Aeroskills, with 215. They also vary in size: although most skill sets are comprised of between one and six units of competency (subjects), about 10% of them are composed of more than 10 units of competency, with one having 33 units.

Enrolments in training package skill sets have grown over time, but they formed only 3.7% of all program enrolments in 2018. Furthermore, enrolments are clustered in relatively few skill sets. Indeed, just 10 skill sets accounted for 68% of enrolments in 2018, with the highest enrolments being in 'Responsible service of alcohol', followed by two 'Work zone traffic control' skill sets. New South Wales and Queensland dominated skill set activity, with these two states accounting for over three-quarters of the enrolments in 2018.

A small number of training packages also dominated enrolments in 2018, with 73% of the enrolments in just three training packages – Resources and Infrastructure (33% of the enrolments), Tourism, Travel and Hospitality (21%), and Transmission, Distribution and Rail (20%). Overall, only about 16% of training package skill sets had any enrolment activity for 2018 (and it was a similar proportion for each of the earlier years, 2015–17).

It was also observed that many of the skill sets attracting high enrolments are compliance- or safety-related, some of them refresher courses. This, however, does not apply to skill sets related to high-risk licences, of which there are few and where little activity occurred in 2018.

The analysis also showed that there is little government funding of training package skill sets, only 10% overall in 2018, even in the two states with the highest skill set enrolments. There are some areas where governments do see skill sets as a priority and are willing to fund them, an example being in Queensland, where there are government subsidies for skill sets related to the roll-out of the National Disability Insurance Scheme (NDIS). Overall, though, it appears that industry and individuals are willing to pay for the training, at least when it comes to the most popular skill sets. Having said that, enterprises and individuals

will take advantage of any available government funding; that is to say, government funding can be a driver of skill set activity. This was seen in New South Wales, where a spike in skill set training occurred in 2016 as a result of an injection of government funding.

About two-thirds of training package skill set enrolments in 2018 were delivered by private providers, with only 17% by TAFE (technical and further education) institutes, and 13% by enterprise training providers, with the rest delivered by community education providers and university.

In terms of student characteristics, 66% of skill set enrolments were by males, 73% by people aged 25 and over, 58% who stated they were employed and 41% who stated that they already held a certificate III or higher-level qualification. Given that many of these enrolments are for compliance-related training, safety-related training or upskilling, these characteristics are not surprising.



Training package skill set statistics

This statistical overview provides an analysis of nationally recognised or training package skill sets.

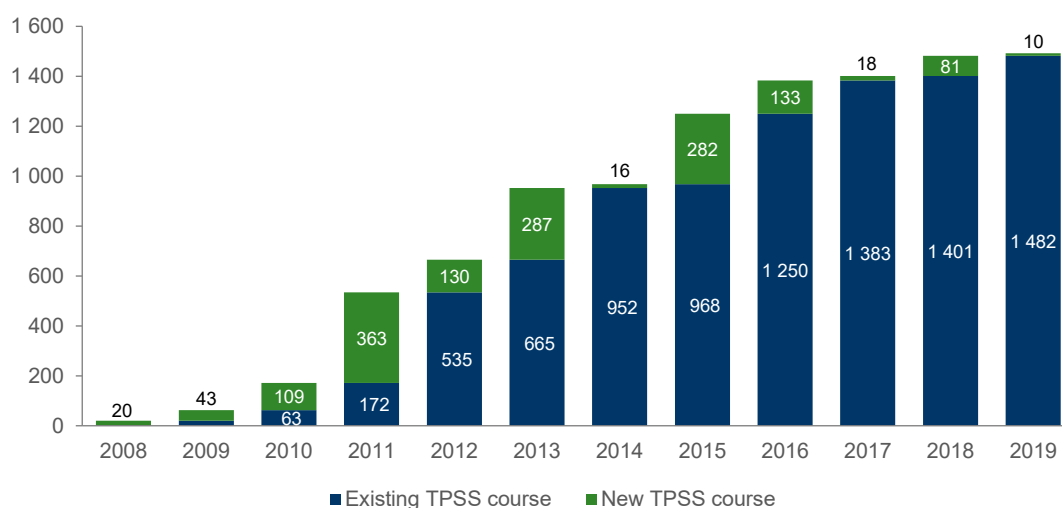
The analysis looks at the extent of these skill sets and the associated enrolment data, with reference mainly to 2018 data. Completion data are not analysed due to underlying issues with the reporting of the data. The analysis is based on the National Register of VET⁴ and the National Provider Collection – Total VET Activity.

Caution needs to be applied to the interpretation of the enrolment data, as a preliminary analysis indicates significant under-reporting of these data. This will be examined in more detail in a further stage of this work. Consequently, the analysis in this report refers to data that have been reported as training package skill set data.

Numbers of training package skill sets

Skill sets were first created in training packages in 2008. Over time, the number of training package skill sets has increased, with new skill sets coming on board each year (figure 1). In figure 1, the number of newly created and existing skill sets are shown for each year. So, for example, in 2010, there were 109 new skill sets created in addition to the 63 skill sets at that time, giving a total of 172 training package skill sets in 2010.

Figure 1 Training package skill sets over time



Scope note: Based on when the training package skill set name first appears on the National Register of VET. It includes current and superseded skill sets and it does not consider any skill set flagged as 'deleted' on the register.
Source: Derived from the National Register of VET.

4 A database of units of competency linked to the associated training package skill sets identifier was furnished by the National Register of VET in March 2019. The scraping algorithm (as performed in March 2019) involves going through the course detail of each training package skill set identifier from this database on the Training.gov.au (TGA) website and capturing its release date for every edition while recording the first known year of the skill set existence.

Figure 1 shows that training package skill sets started off in 2008 with the creation of 20 new skill sets. These were largely in the Aviation Training Package. Some years, in particular 2011, 2013 and 2015, have seen the creation of large numbers of skill sets across various training packages. However, there have been fewer new skill sets created since 2016, perhaps indicating some level of saturation of these products.

Table 1 shows the number of current skill sets (as of the end of 2018), sorted by number of skill sets (skill set size), for the top five training packages. The total list of current skill sets is located in appendix A.

Table 1 Training packages with the greatest number of skill sets (current up to end of 2018)

Training package	Number of skill sets	Proportion of all skill sets (%)
MEA – Aeroskills	215	15.9
SIS – Sport, Fitness and Recreation	94	7.0
TLI – Transport and Logistics	92	6.8
UEE – Electrotechnology	75	5.5
AMP – Australian Meat Processing	61	4.5
All other training packages	815	60.3
Total	1 352	100.0

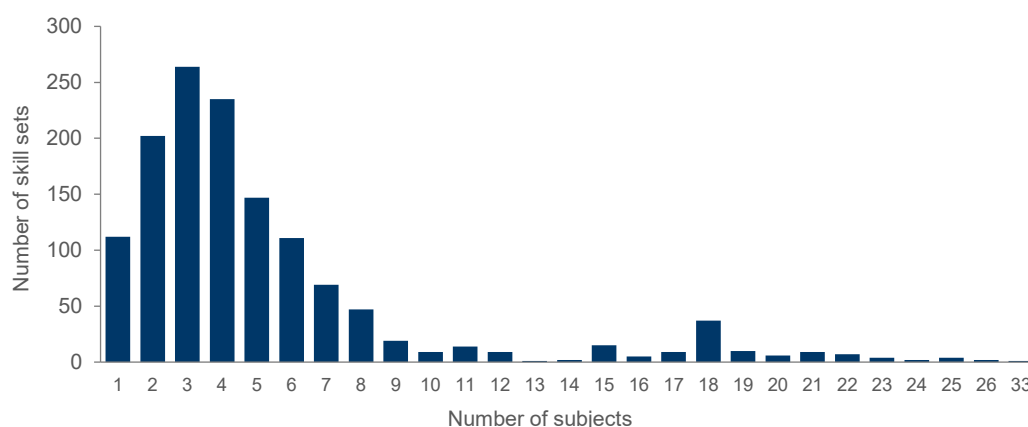
Scope note: Base = 1352 current training package skill set identifiers (based on the last known subject combination and latest skill set edition).

Source: Derived from the National Register of VET.

Table 1 shows that a little under 40% of current skill sets are clustered around just five training packages (of 51 or so current training packages). The largest number of skill sets per training package by far is for MEA – Aeroskills. These were developed to provide training for the large array of licensing that is required by the regulation authority for aviation (Civil Aviation Safety Authority or CASA). At the other end of the scale sit seven current training packages, with no skill sets associated with them (see appendix A).

Training package skill sets also vary considerably in size in terms of the numbers of units of competency (subjects) of which they are constituted. Figure 2 shows the numbers of skill sets by skill set size (for current skill sets up to end 2018).

Figure 2 Training package skill sets by number of subjects per skill set



Scope note: Base = 1352 current training package skill set identifiers (based on the last known subject combination and latest skill set edition).

Source: Derived from the National Register of VET.

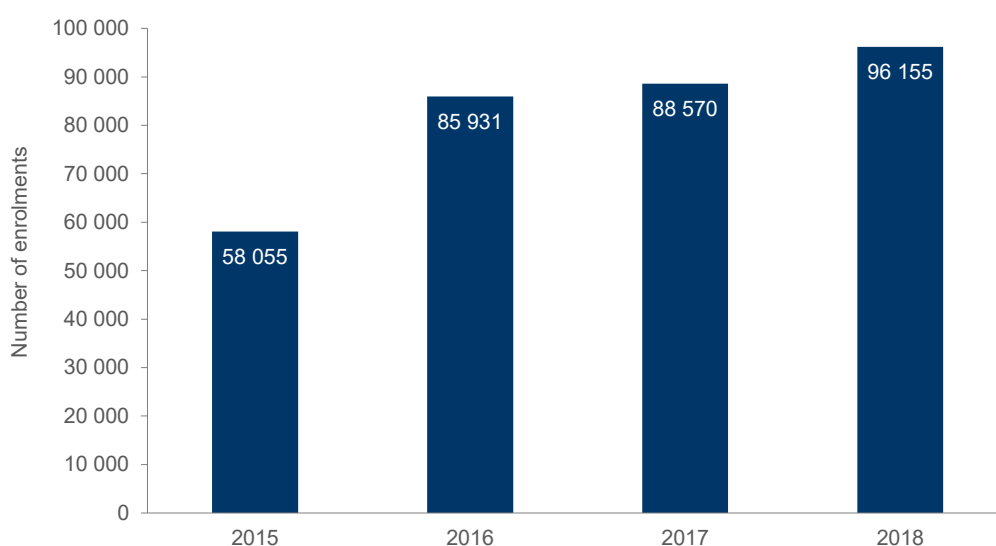
It can be seen from figure 2 that training package skill sets vary in size from one unit of competency to 33 units of competency. The most common size for the number of units of competency is three (264 or about 20% of training package skill sets), followed by four units (17%), two units (15%), five units (11%), one unit (8%) and six units (8%) of competency. About 10% of skill sets contain more than 10 units of competency.

There are 37 skill sets that contain 18 units of competency – from the MEA – Aeroskills and SIS – Sports, Fitness and Recreation training packages. These two training packages, which have the greatest number of skill sets associated with them, also tend to have the largest skill sets in terms of the numbers of units of competency contained within them. In relation to MEA – Aeroskills, the average size of the skill sets was seven units of competency, with 51 of the 215 skill sets being composed of 10 or more units of competency. For SIS – Sport, Fitness and Recreation, the average size of the skill sets was 16 units of competency, with 77 of the 94 skill sets being composed of 10 or more units of competency.

Skill set enrolments

Figure 3 shows total training package skill set enrolments as reported in total VET activity for 2015–18.

Figure 3 Total number of training package skill set enrolments, 2015–18

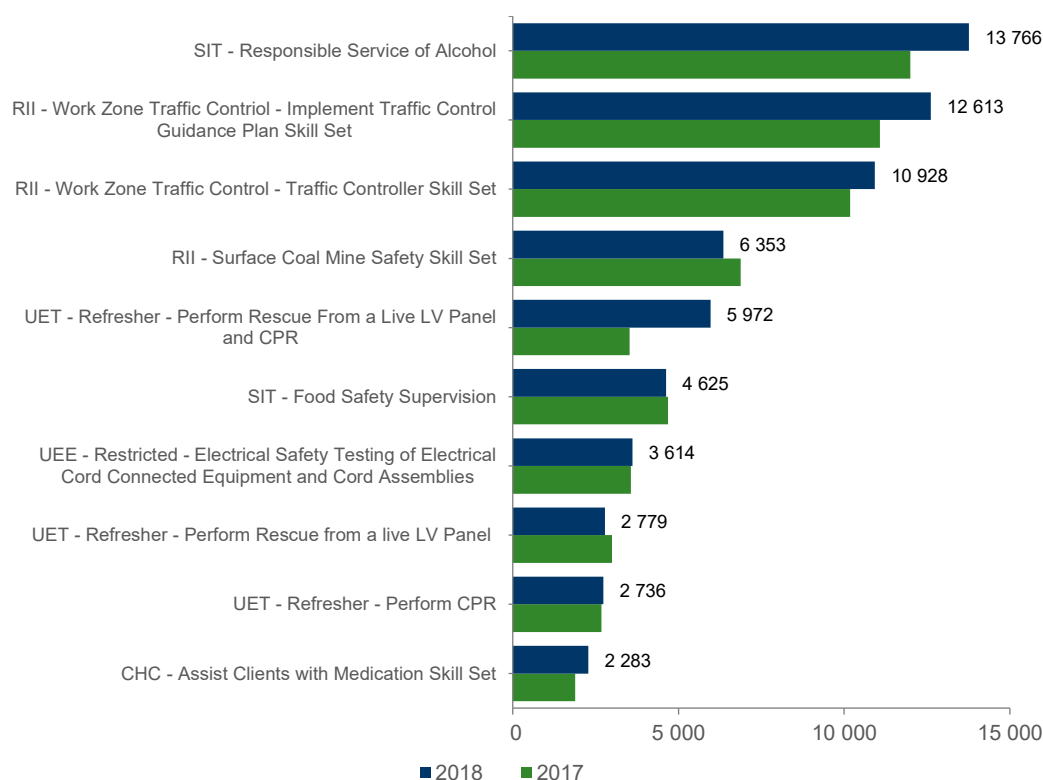


Source: National Provider Collection – Total VET Activity.

The number of enrolments has increased over time (particularly from 2015–16), with some of this increase possibly due to improved reporting of skill sets. In addition, the actual number of existing training package skill sets increased somewhat, from 1250 at the start of 2016 to a little under 1500 by 2019 (see figure 1). Contextually, however, training package skill sets form only a small proportion of all nationally recognised program enrolments – 3.7% in 2018.

Looking in more detail, the 10 largest skill sets, in terms of the number of enrolments for 2018, are shown in figure 4, together with their training package identifier. The 2017 enrolment data for these skill sets are shown as a comparison. It is interesting to note that this list of the largest skill sets all relate to safety or compliance in one way or another.

Figure 4 Ten largest skill sets in terms of numbers of enrolments, 2017, 2018



Scope note: Collapsed program name based on training package skill set identifiers. The program name is based on when the training package skill set name has first appeared on the National Register of VET.

Source: National Provider Collection – Total VET Activity, 2017, 2018.

The largest skill set in terms of enrolments was ‘Responsible service of alcohol’, which in total had about 13 800 reported enrolments in 2018. A single unit of competency skill set, it is undertaken for compliance with regulation/legislation. It became a skill set as a consequence of funding becoming available under the National Workforce Development Fund.⁵ The National Workforce Development Fund (NWDF) was an Australian Government program that helped businesses to identify and address current and future workforce development needs (Service Skills Australia 2014).

While this was the largest skill set in 2018, it is interesting to note that, for the subject (unit of competency), ‘Responsible service of alcohol’, there were an additional 178 490 subject-only enrolments in 2018, but these were not reported with a skill set program identifier.

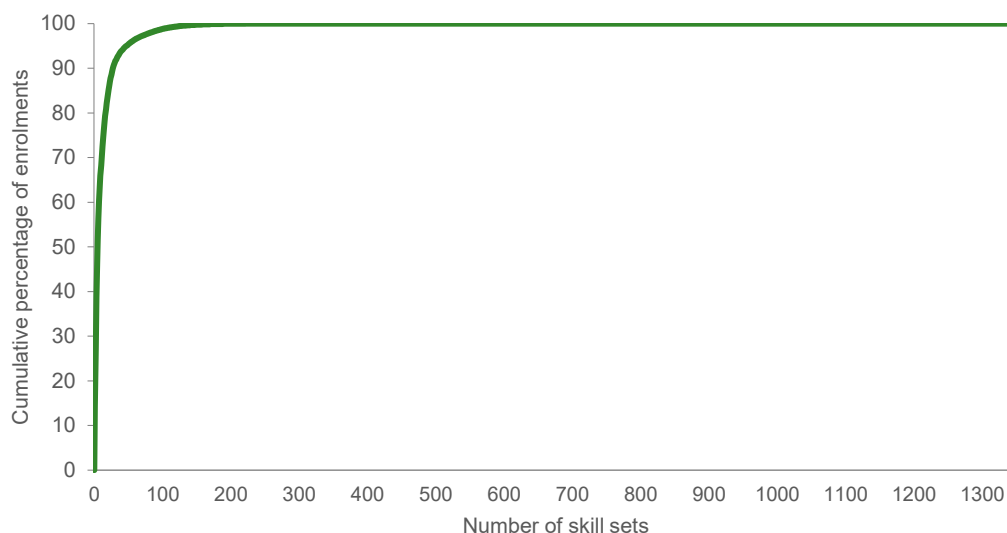
The second and third largest were both related to ‘Work zone traffic control’ and accounted for 23 500 enrolments in 2018. About 90% of the enrolments in these two skill sets were in New South Wales. Notably, the three refresher and rescue courses from the Transmission, Distribution and Rail Training Package (UET) in figure 4 above are largely delivered in Queensland.

The top 10 training package skill sets accounted for 68% of all skill set enrolments in 2018. This means that a very small proportion of all training package skill sets (<1%) accounted for

⁵ Communication with Skills Service Organisation on 25 February 2019.

over a two-thirds of the enrolment activity. At the other end of the scale were over 1100 (or about 84%) current training package skill sets with no enrolments recorded against them in 2018. The skewness⁶ in enrolments for 2018 is demonstrated in figure 5. Figure 6, which follows, shows for the period 2015 through to 2018, the proportion of skill sets that had any enrolments against them for that particular year.

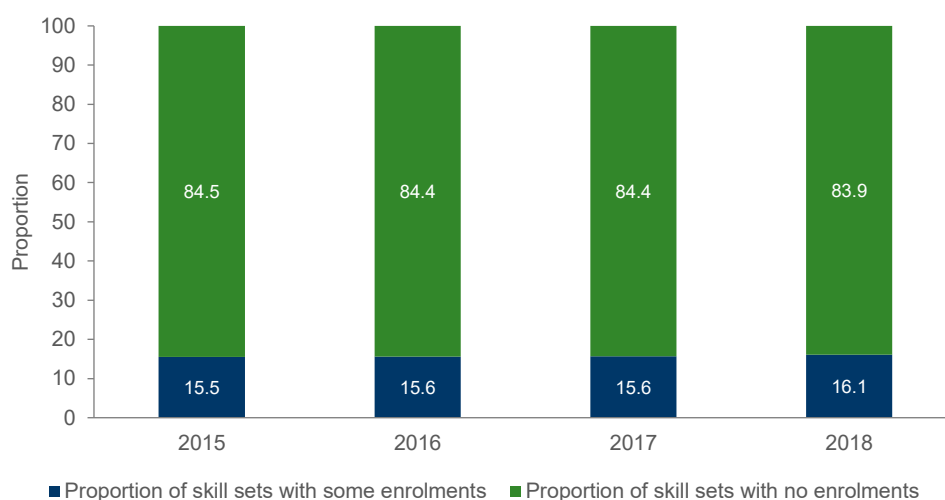
Figure 5 Cumulative percentage of enrolments in training package skill sets, 2018



Scope note: Base = 1352 current training package skill set identifiers (based on the last known subject combination and latest skill set edition).

Source: National Provider Collection – Total VET Activity; National Register of VET.

Figure 6 Proportion of training packages with enrolments, 2015–18



Scope note: Active training package skill set programs during each VET collection year.

Source: National Provider Collection – Total VET Activity; National Register of VET.

Figure 6 shows that, for each year, only about 16% of skill sets actually had any enrolments. If we look at 2018 more closely (not shown in figure 6), there were only 217 skill sets (of

⁶ In this context, skewness refers to the variation of the distribution from a 45-degree line.

1350 or so current skill sets) with any activity against them. Training packages with the largest numbers of skill sets with activity against them were Sport, Fitness and Recreation, with 33 (of a total of 94 for that training package), Community Services with 27 (of 54), Electrotechnology, with 14 (of 75) and Transmission, Distribution and Rail, with 13 (of 18). Three of these are also among the five training packages with the largest numbers of skill set enrolments in 2018 (see table 2).

Conversely, there were quite a few training packages for which few, if any, skill sets had activity in 2018. One example of this is the Aeroskills Training Package, for which only four of the 215 skill sets had activity in 2018. Other examples are the Transport and Logistics Training Package, with six skill sets of 92 having activity, and Australian Meat, where four skill sets of 61 had activity in 2018. The full list is shown at appendix A.

In some cases, the skill sets may exist because of licensing requirements. For example, in the case of MEA – Aeroskills, the skill sets are licensing-related and are there for people who require licences. However, as would be expected, given the nature of the work, there are relatively few people needing these licences in any given year.

Table 2 shows proportions of skill set enrolments by training package for 2018.

Table 2 Top five training packages by skill set enrolments, 2018

Name of training package	Number of skill set enrolments	Percentage of all skill set enrolments (%)
Resources and Infrastructure	31 352	32.6
Tourism, Travel and Hospitality	20 144	20.9
Transmission, Distribution and Rail	18 758	19.5
Community Services	5 143	5.3
Electrotechnology	3 907	4.1
All other training packages	16 851	17.5
Total	96 155	100.0

Source: National Provider Collection – Total VET Activity.

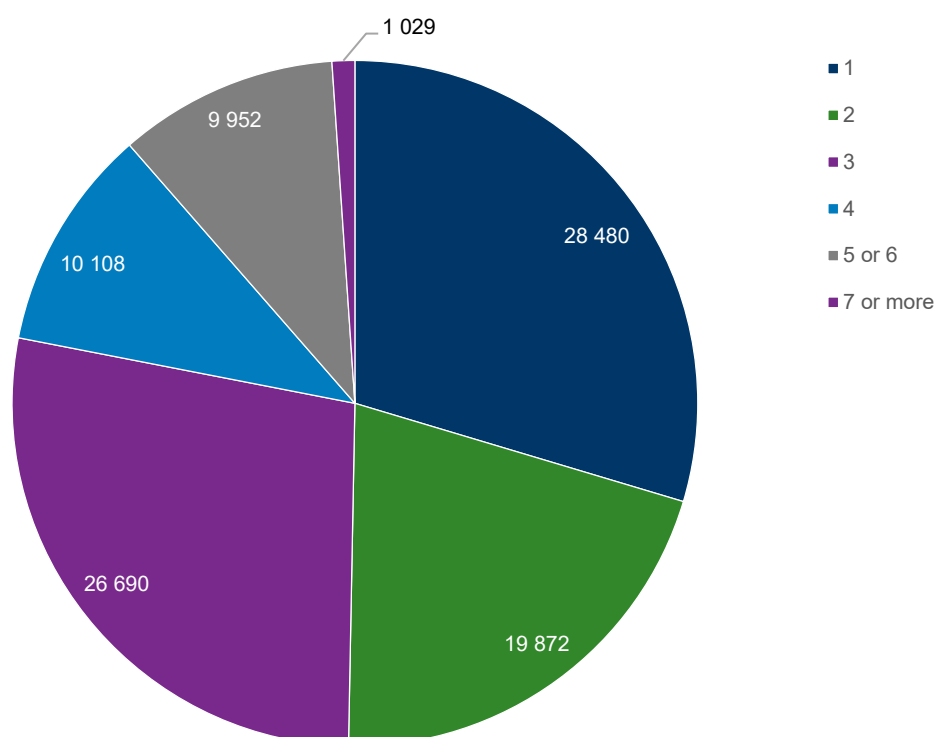
Note: Percentages may not add to exactly 100 due to rounding.

As the previous analysis indicated, training package skill set activity tends to be clustered in a small number of training packages. Just five training packages accounted for 82.5% of training package skill sets enrolments in 2018, and indeed just three training packages accounted for 73% of the enrolment activity.

This list of training packages is somewhat different from those shown in table 1. The only training package common to both tables is Electrotechnology. Aeroskills, which has over 200 skill sets, had only 83 enrolments in 2018 (largely in two of the skill sets). By contrast, the Resources and Infrastructure Training Package has 33 current skill sets, although there were over 31 000 enrolments in 2018 across six of the skill sets.

It may also be of interest to look at skill set enrolment data according to the ‘size’ of the skill set. We saw earlier that the size of skill sets ranges from one unit of competency to 33 units of competency. We would assume that skill sets containing multiple units of competency would require somewhat more effort than those with few units of competency. Is this reflected in their use? Figure 7 shows total numbers of enrolments by skill set size for the 2018 data.

Figure 7 Total numbers of enrolments by number of subjects in the skill set, 2018



Scope note: Base = 1352 current training package skill set identifiers (based on the last known subject combination and latest skill set edition).

Note: Total does not add exactly to 96 155 (but rather 96 131) enrolments, as the analysis is based on current skill sets.

Source: Derived from National Provider Collection – Total VET Activity; National Register of VET.

The figure clearly shows that the largest numbers of enrolments are for skill sets comprised of one, two or three units of competency. The largest of all was for one-subject skill sets (with nearly 28 500 enrolments in total). These were dominated by the skill set ‘Responsible service of alcohol’, the safety-related skill sets that form part of the Transmission, Distribution and Rail Training Package, and the skill set ‘Food handling’. The next largest total number of enrolments were for three-subject skills set. Enrolments in these were dominated by a small number of skill sets, with a little under 90% of the enrolments in 2018 in these skill sets being in two of the ‘Work zone traffic control’ skill sets.⁷

Program and student characteristics of skill sets

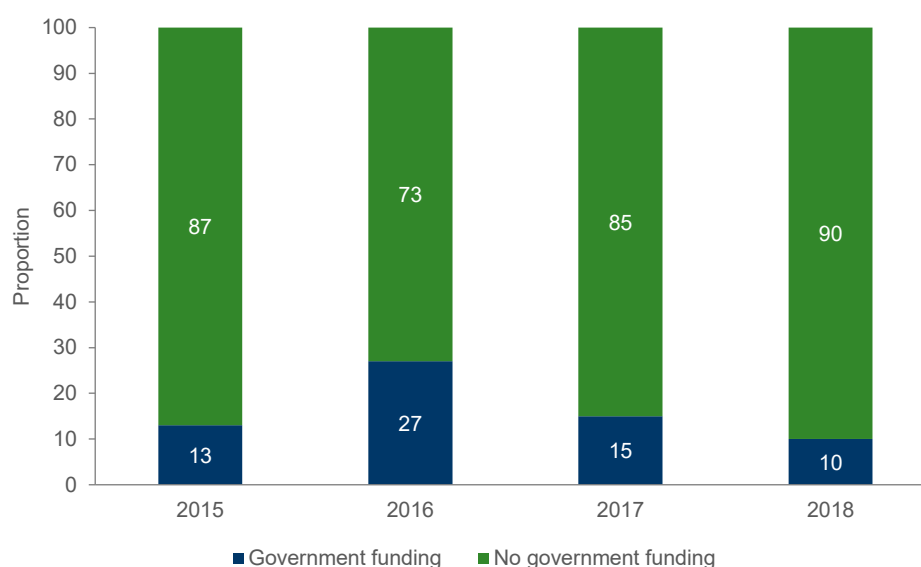
This section will examine some of the program and student characteristics of skill sets. How are they funded? Where are they being undertaken? What are the characteristics of people who undertake them?

Program characteristics

Figure 8 shows the funding source for training package skill sets overall in 2017 and 2018.

⁷ Note that there are 112 current one-subject skill sets and 264 three-subject skill sets.

Figure 8 Training package skill set enrolments by funding source, 2015–18 (%)



Source: National Provider Collection – Total VET Activity.

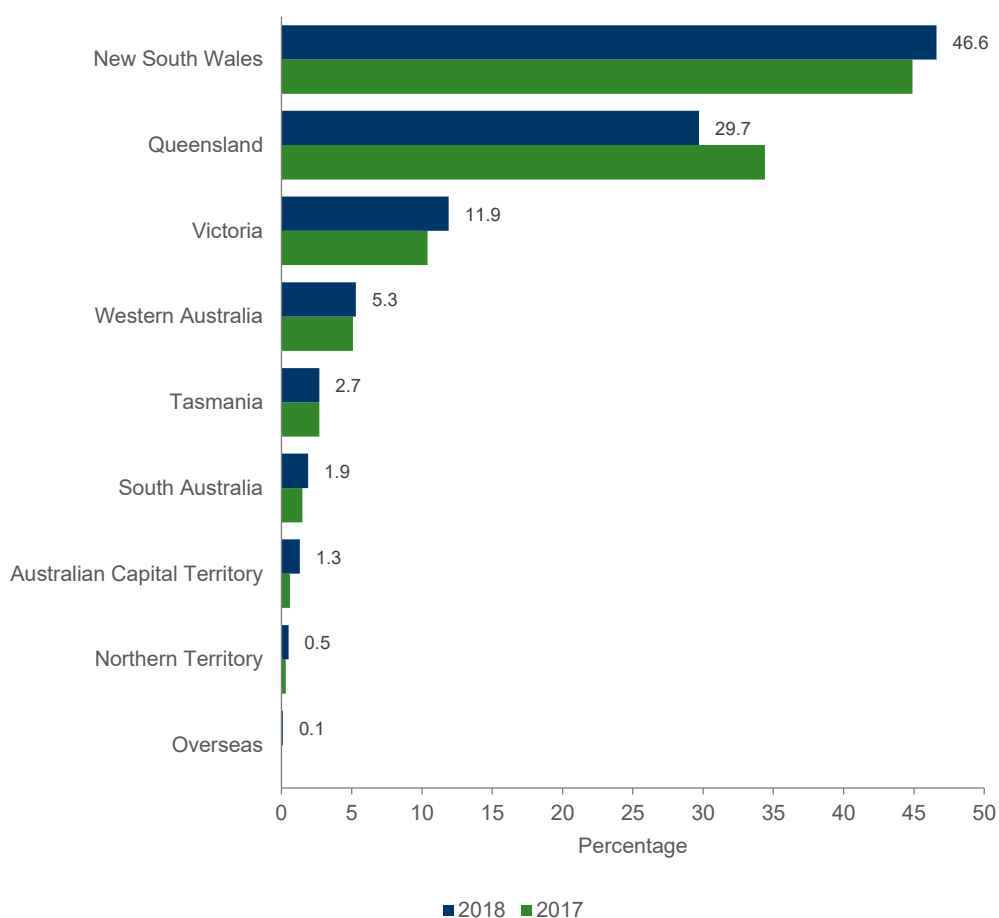
The main feature of figure 8 is that the large majority of training package skill sets are funded through fee-for-service arrangements (no government funding), which may be a consequence of many states having a policy of funding full qualifications rather than skill sets. The exception was 2016, where New South Wales provided significant government funding for training package skill sets.

There are, nevertheless, some skill sets that attract high proportions of government funding. If we look, for example, at skill sets with 100 or more enrolments in 2018, there are 15 with more than 50% government funding (see appendix B). Of these skill sets, eight were from the Community Services Training Package, and four from the Financial Services Training Package.

Some of these skill sets appear on the priority skills list (for VET funding) of states and territories. For example, there are several skill sets from the Community Services Training Package listed on the Queensland priority skills list for 2019 (Queensland Department of Employment, Small Business and Training 2019). These appear to be related to the roll-out of the NDIS. For one of these skill sets, ‘Supporting children and families with complex needs’, all 1585 enrolments in 2018 were in Queensland (with 92% government funding). It needs to be noted that the availability of government funds for skill sets is a driver of skill set activity, with enterprises and individuals likely to take advantage of any available government funds.

The next figure (figure 9) shows skill set enrolments for 2017 and 2018 according to the state or territory in which they were delivered.

Figure 9 Proportion of training package skill set enrolments by state of delivery, 2017, 2018

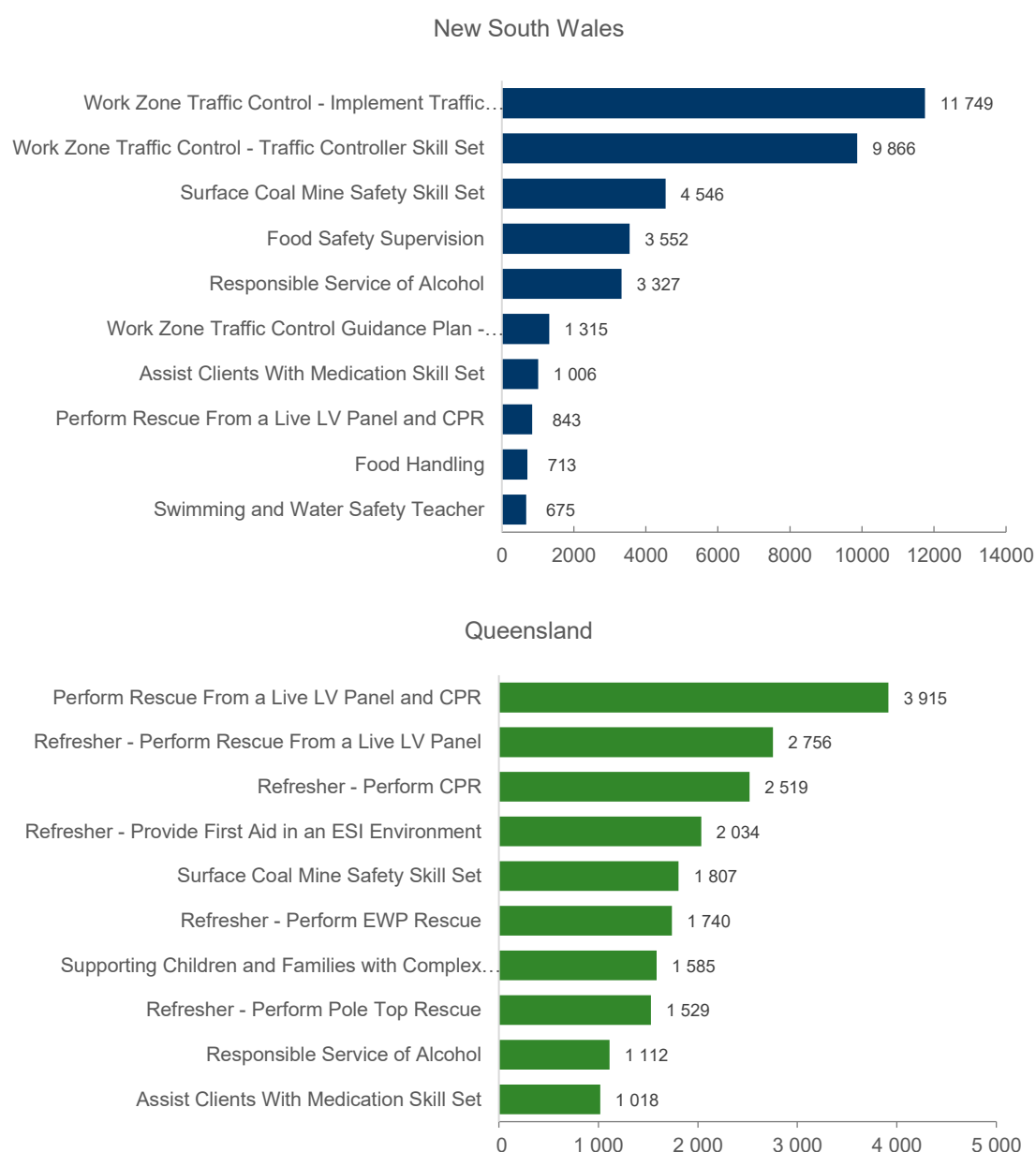


Source: National Provider Collection – Total VET Activity.

By far and away the highest proportion of enrolments were in New South Wales (about 47% in 2018, figure 9), although Queensland also had a large proportion of enrolment (about 30%). Together, these two states have dominated skill set enrolments. We can examine these states more closely for the 2018 data in terms of funding skill sets and also the main skill sets undertaken.

Fee-for-service arrangements represented the main source of funding for training package skill sets in New South Wales (87%) and Queensland (92%) in 2018. The 10 largest skill sets in terms of enrolments for these states in 2018 are shown in figure 10 on the next page.

Figure 10 Largest skill sets in terms of numbers of enrolments, New South Wales and Queensland, 2018



Source: National Provider Collection – Total VET Activity.

For New South Wales, two skill sets dominated in terms of enrolment numbers in 2018, both concerned with ‘Work zone traffic control’. These two skill sets, together with a third ‘Work zone traffic control’ skill set, accounted for just over a half of the training package skill set enrolments in New South Wales. About 92% of all the enrolments in ‘Work zone traffic control’ skill sets in 2018 were delivered in New South Wales and over 97% of the funding was through fee-for-service arrangements.

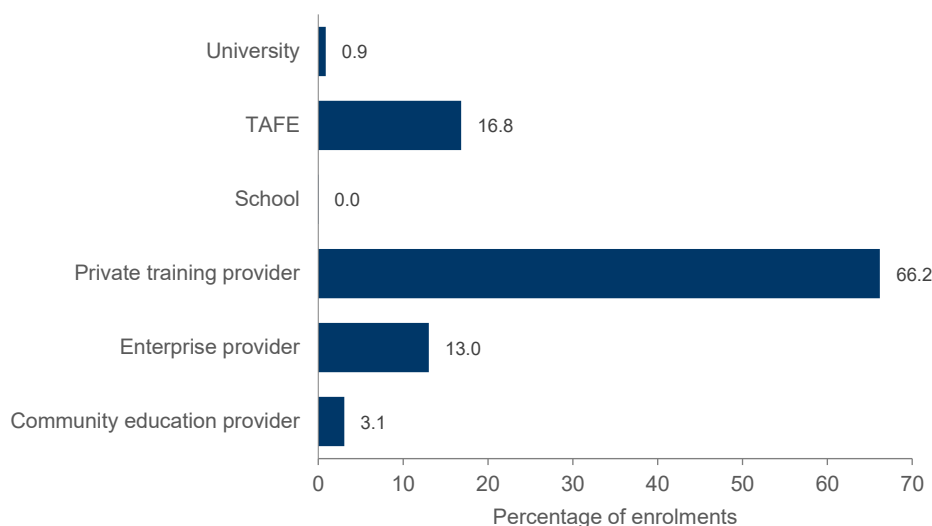
In New South Wales, a person must hold a ‘Blue Card’ to work as a traffic controller. Roads and Maritime Services in New South Wales has incorporated nationally recognised training into training for traffic controllers and traffic management. Training organisations providing traffic control and assessment must be approved and registered by Roads and Maritime Services (New South Wales Transport & Marine Services 2015).

In Queensland, six of the top 10 skill sets were safety-related skill sets from the UET – Transmission, Distribution and Rail Training Package. Enrolments in these skill sets accounted for one-half of all training package skill set enrolments in Queensland in 2018. Furthermore, 85% of all the enrolments in Transmission, Distribution and Rail Training Package skill sets nationwide were in Queensland in 2018.

The transmission, distribution and rail sector is quite large in Queensland. The ESI transmission, distribution and rail skills forecast for 2019 (Australian Industry Standards 2019) indicates that Queensland had 31 organisations headquartered in this sector – the largest of any state. The skills forecast also shows that Queensland had the second largest workforce in this sector.

Figure 11 provides information on how skill set activity is split across provider type for 2018.

Figure 11 Skill sets enrolments by provider type, 2018 (%)



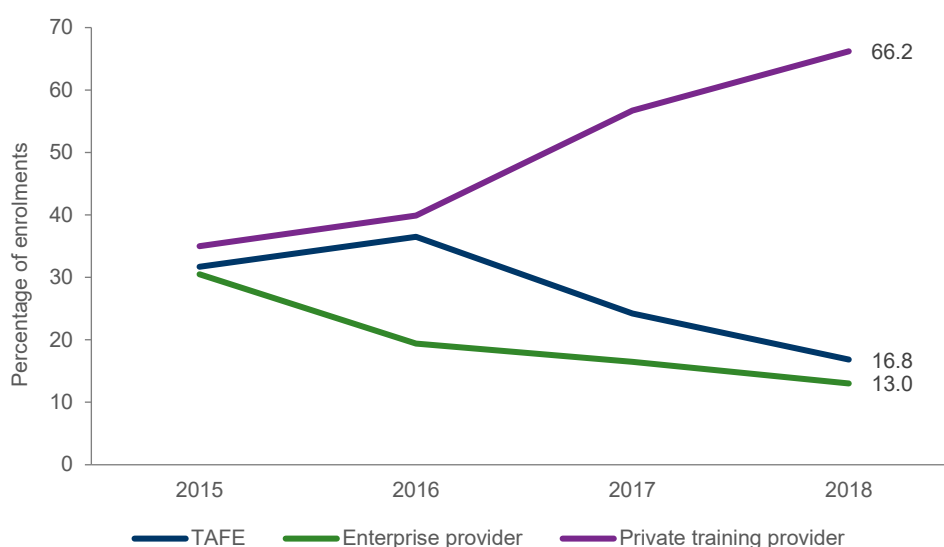
Source: National Provider Collection – Total VET Activity.

Figure 11 shows that in 2018 about two-thirds of training package skill sets were delivered by private training providers, followed by TAFE institutes and enterprise training providers. Enterprise training providers appear to play a greater role in the delivery of skill set training than they do in training for qualifications.⁸ An examination of the data shows that about 90% of enrolments in enterprise providers in 2018 were for safety-related refresher courses in the Transmission, Distribution and Rail Training Package.

What figure 11 does not show is that the proportion of training package skill sets delivered by private providers has increased substantially over time, largely at the expense of TAFE institutes and enterprise training providers (see figure 12).

⁸ By comparison, enterprise training providers delivered 3% of training package qualifications in 2018.

Figure 12 Skill sets enrolments by provider type, 2015–18 (%)



Note: Other provider types make up 4% of the enrolments.
Source: National Provider Collection – Total VET Activity.

In 2015, each of these three provider types delivered between about 30% and 35% of training package skill set training. By 2018, however, TAFE institutes and enterprise training providers were delivering only about 30% of training package skill set training between them, while private providers delivered 66%.

One of the reasons for the apparent increase in the representation of private providers may be an artefact of improved reporting of total VET activity data over this time, although it is difficult to say to what extent this is the case.

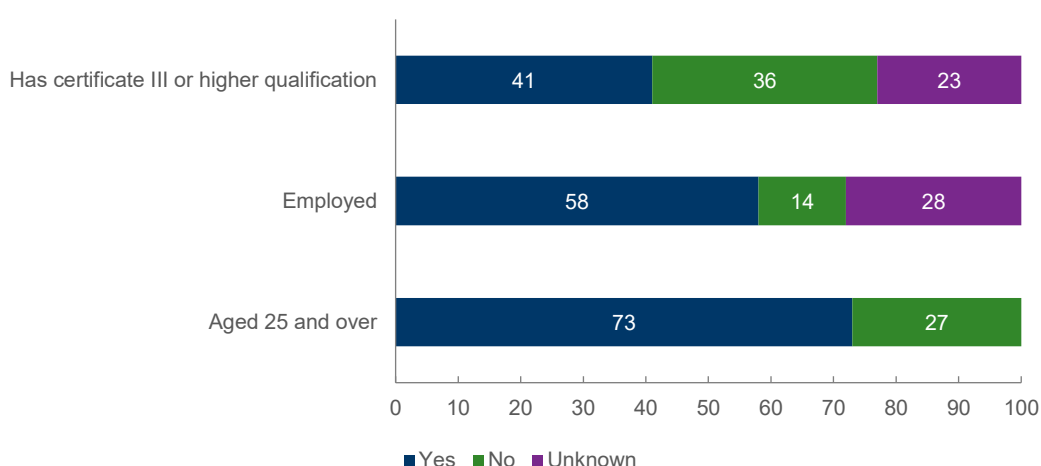
However, the change in distribution of providers since 2016 has also, in part, been driven by New South Wales. In 2016, New South Wales had a large proportion of government-funded skill sets, mainly delivered by TAFE institutes, which dissipated in subsequent years. Indeed, if we look at Australia as a whole, 86% of all government funding for skill sets in 2016 was in New South Wales. Furthermore, 24% of all skill set funding (government sources and fee-for-service) across Australia in 2016 was from the New South Wales Government.

The relatively large proportion of enterprise provider enrolments in 2015 was due the large numbers of enrolments with enterprise providers in Queensland. While enterprise training provision still played a large role in Queensland after 2015, the increase in overall enrolments in skill sets Australia wide across (mainly private) provider types since that time has diluted the overall proportion of enrolments with enterprise providers.

Student characteristics

Figure 13 provides basic information on the characteristics of students enrolled in training package skill sets in 2018. In addition to the characteristics shown below, 66% of the enrolments were by males, with 32% being by females.

Figure 13 Characteristics of students enrolled in skill sets in 2018 (%)



Source: National Provider Collection – Total VET Activity.

Given that training package skill sets are largely aimed at compliance-related training and upskilling, these student characteristics are not surprising. It would be expected that a large proportion of the students are older (not youths of new workforce entrant age), are employed and have prior qualifications. However, it can be seen from the figure that there are also notable proportions of students who stated that they are aged 24 years and younger, are not employed or do not have post-school qualifications at certificate III level or higher.

It may be instructive to see what kinds of skill sets those who are not employed are undertaking. An examination of the data shows that the most ‘popular’ skill sets for this group are very similar to the most popular skill sets in the overall picture. Indeed, the top three skill sets – ‘Responsible service of alcohol’, and two traffic controller skill sets – are identical. For those not employed, these three skill sets accounted for 65% of enrolments in 2018. This is perhaps not surprising, since, in order to gain employment working in a bar or as a traffic controller, people need to undertake the relevant training.

A similar picture arises if we look at skill set enrolments for those aged 24 and under, those without a certificate III or higher-level qualification, or females.

The use of skill sets for licensing in high-risk occupations

A specific use of skill sets is to obtain a licence to perform high-risk work. These high-risk licences (29 in total) are required in Australia (Safe Work Australia 2019) for work related to:

- crane and hoist operation
- dogging and rigging
- forklift operation
- reach stacker operation
- boom-type elevating work platform use
- pressure equipment operation
- scaffolding work.

To obtain the licence, appropriate training needs to be undertaken and an assessment process completed. Given that part of the definition of training package skill sets refers to their links to licensing requirements, it might be expected that the 29 licences listed by Worksafe Australia would appear as training package skill sets. In fact, only four single-unit training package skill sets are high-risk licences. They are:

- 'MSMSS00001 – Licence to operate a standard boiler' is/was comprised of the unit of competency 'MSMBLIC001 – Licence to operate a standard boiler'.
- 'MSMSS00002 – Licence to operate an advanced boiler' is comprised of the unit of competency 'MSMBLIC002 – Licence to operate an advanced boiler'
- 'UEPSS00002/6 – High risk licensing – Licence to operate a steam turbine' is/was comprised of the unit of competency 'UEPOPL001A – Licence to operate a steam turbine'
- 'UEPSS00001/5 – High risk licensing – Licence to operate a reciprocating steam engine' is comprised of the unit of competency 'UEPOPL002 – Licence to operate a reciprocating steam engine'.

There was virtually no activity in 2018 for these high-risk licensing skill sets, with just two enrolments for the 'Licence to operate an advanced boiler' skill set and none for the other three of these listed skill sets.

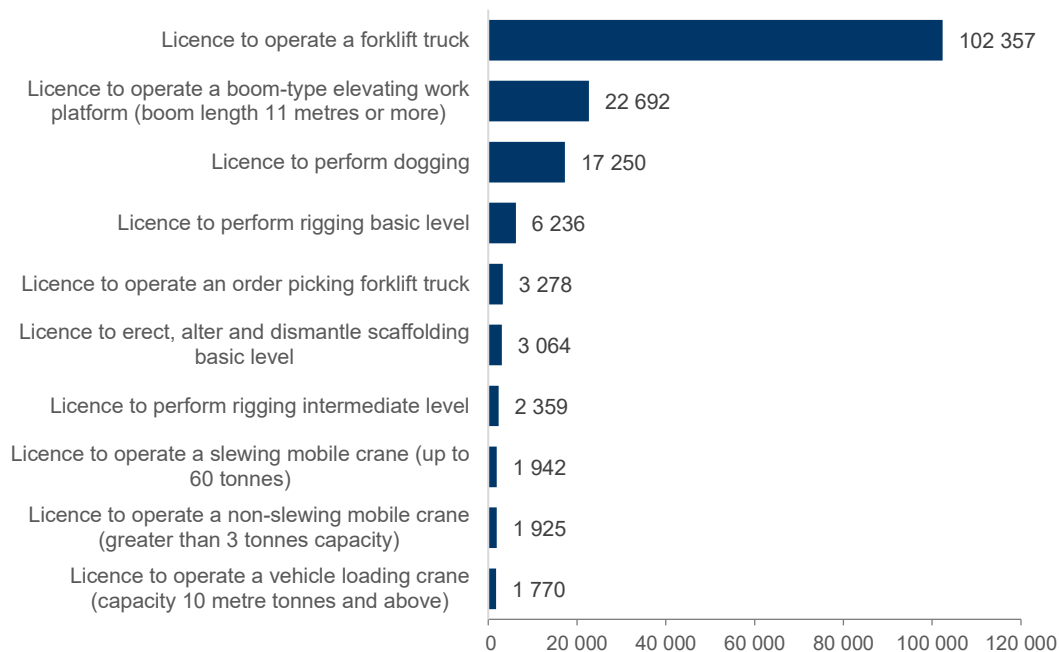
Nine other nationally recognised skill sets up to the end of 2018 (comprising more than one unit of competency) include at least one unit of competency related to a high-risk licence. One example of this is CUASS00024 – Festivals and events skill set, which contains the following units of competency:

- CPCCCM2010B – Work safely at heights
- CPCCLDG3001A – Licence to perform dogging
- CPCCOHS1001A – Work safely in the construction industry
- CPCCOHS2001A – Apply OHS requirements, policies and procedures in the construction industry
- CUAIND201 – Develop and apply creative arts industry knowledge
- CUASTA202 – Assist with bump in and bump out of shows
- CUAWHS302 – Apply work health and safety practices
- TLILIC2001A – Licence to operate a forklift truck
- TLILIC2005A – Licence to operate a boom-type elevating work platform (boom length 11 metres or more).

As can be seen, this skill set includes three licences – related to dogging, operating a forklift truck and operating a boom-type elevating platform. There has been no activity reported for this skill set in 2018.

There are, however, various units of competencies that double as high-risk licences (but as noted only four are available as training package skill sets). Figure 14 shows the 10 largest licensing units by numbers of enrolments in 2018.

Figure 14 Ten largest licencing units of competency by enrolment numbers, 2018



Source: National Provider Collection — Total VET Activity.

The largest licensing unit by far was ‘Licence to operate a forklift truck’, with over 102 000 enrolments (across all program types and subject only enrolments) in 2018.

Many of the licensing units shown above are being undertaken as subjects only (and not part of a program). An analysis of these subject-only enrolments indicates that they have large numbers of enrolments. For example, there were about 86 000 subject-only enrolments in 2018 for the unit ‘Licence to operate a forklift truck’; about 21 000 for the unit ‘Licence to operate a boom-type elevating work platform (boom length 11 metres or more)’; and 13 500 for the unit ‘Licence to perform dogging’. The licences related to boilers and steam turbines/engines attracted between 33 and 192 enrolments in 2018.

This analysis shows that many people are undertaking high-risk licensing subjects, but that training package skill sets are generally not being developed or used as a vehicle for these licences.

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Appendix

Appendix A: Number of current nationally recognised skill sets and skill sets with enrolments by training package (up to end 2018)

Training package	Number of skill sets	Number of skill sets with some enrolments in 2018
Aeroskills (MEA)	215	4
Agriculture, Horticulture and Conservation and Land Management (AGF, AGR, AHC, RTD, RTE, RTF, RUA, RUH)	49	4
Animal Care and Management (ACM, RUV)	10	2
Australian Meat Processing (AMP, MTM)	61	4
Automotive Manufacturing (AUM)	0	0
Automotive Industry Retail, Service and Repair (AUR)	28	7
Aviation (AVI, TDA, ZQF)	44	7
Business Services (BSA, BSB)	57	7
Chemical, Hydrocarbons and Refining (PMA)	13	0
Community Services (CHC)	54	27
Construction, Plumbing & Services Integrated Framework (BCF, BCG, BCP, CPC)	4	1
Correctional Services (CSC)	0	0
Creative Arts and Culture (CUA, CUE, CUF, CUS, CUV)	49	6
Defence (DEF)	14	0
Electricity Supply Industry - Generation Sector (UEP, UTP)	4	1
Electrotechnology (UEE, UTE, UTL)	75	14
Financial Services (FNA, FNB, FNS)	12	7
Floristry (FSL, WRF)	0	0
Food, Beverage and Pharmaceutical (FBP, FDF, SUG)	38	0
Forest and Wood Products (FPI, FWP)	30	4
Foundation Skills (FSK)	0	0
Funeral Services (SIF, WFS)	3	1
Furnishing (LMF, MSF)	7	1
Gas Industry (UEG, UTG)	6	0
Hairdressing and Beauty Services (SHB, SIH, SIB, WRH)	0	0
Health (HLT)	37	9
Information and Communications Technology (ICA, ICT)	50	10
Laboratory Operations (MSL, PML)	1	0
Local Government (LGA)	3	1
Manufacturing (MCM, MSA, MSM)	14	12
Maritime (MAR, TDM)	16	7

Training package	Number of skill sets	Number of skill sets with some enrolments in 2018
Metal and Engineering (MEM)	1	0
National Water (NWP, UTW)	10	0
Plastics, Rubber and Cablemaking (PMB)	0	0
Police (POL)	2	0
Printing and Graphic Arts (ICP)	4	1
Property Services (CPP, PRD, PRM, PRS)	43	1
Public Safety (PUA)	26	5
Public Sector (PSP)	14	1
Pulp & Paper Manufacturing Industry (FPP, PPM)	10	0
Racing Industry (RGR)	43	1
Resources and Infrastructure (BCC, DRT, MNC, MNM, MNQ, RII)	33	6
Retail Services (SIR, WRP, WRR, WRW)	6	1
Seafood Industry (SFI)	14	0
Sport, Fitness and Recreation (SIS, SRC, SRF, SRO, SRS)	94	33
Sustainability (MSS)	7	0
Textiles, Clothing and Footwear (LMT, MST)	0	0
Tourism, Travel and Hospitality (SIT, THH, THT)	32	8
Training and Education (BSZ, TAA, TAE)	9	5
Transmission, Distribution and Rail (UET, UTT)	18	13
Transport and Logistics (TDT, TLI)	92	6

Appendix B: Nationally recognised skill sets with high proportions of government funding 2018

The table shows skill set enrolments for 2018 where they were more than 50% government-funded and had at least 100 enrolments in 2018.

Skill set	Total enrolments	Government funding (%)
CHCSS00090 – Supporting Children and Families with Complex Needs	1 585	92.2
CHCSS00067 – Administer and Monitor Medication Skill Set	119	84.0
CHCSS00098 – Individual Support – Disability Skill Set	154	77.3
CHCSS00105 – Palliative Approach Skill Set	121	76.9
CHCSS00073 – Case Management Skill Set	121	73.6
BSBSS00063 – Team Leader Skill Set	291	73.2
CHCSS00095 – Dementia Support - Service Delivery Skill Set	129	72.1
AHCSS00027 – Agricultural Chemical Skill Set	932	71.2
FNSSS00008 – Tax Law for Tax Agents Skill Set	227	69.2
FNSSS00014 – Accounting Principles Skill Set	115	67.8
FNSSS00005 – Commercial Law for Tax Agents Skill Set	219	67.1
FNSSS00004 – BAS Agent Registration Skill Set	744	61.3
BSBSS00077 – Marketing and Communication Foundations Skill Set	403	58.6
CHCSS00081 – Induction to Disability	104	56.7
CHCSS00070 – Assist Clients with Medication Skill Set	2 283	52.5



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