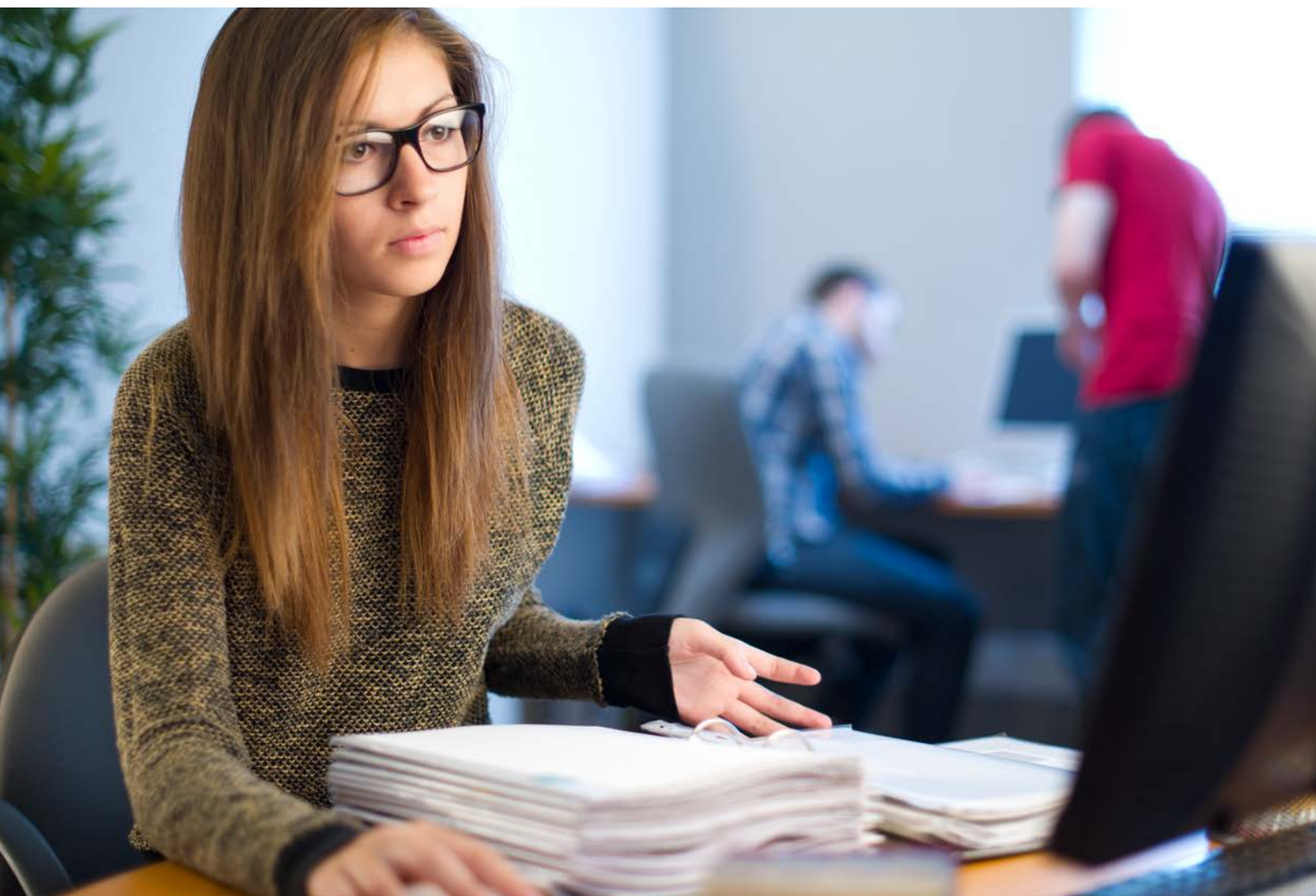


The Australian Industry Group

# Workforce Development Needs Survey Report

December 2016



# Executive Summary



The Australian Industry Group regularly contacts employers about the wide range of their workforce development and skills needs. We have conducted surveys dedicated to this on three occasions now and this report analyses the 2016 survey results.

Despite our prosperous economy there are still significant skills shortages, especially for technicians and trade workers. This includes STEM areas as well. Apprenticeships and traineeships are in decline and over half of our surveyed employers do not engage in this training option. School-based apprenticeships remain under-utilised and school leavers are not attracted to apprenticeships. Workplace literacy and numeracy remains a major issue with 87 per cent of employers reporting that their business is affected by low levels in this area.

Employers express concern about the skills of graduates from our education system. This is especially the case for employability skills and literacy and numeracy attainment in the schools sector. There are also issues in the VET sector such as problem solving, self-management and numeracy and some lesser concerns about higher education graduates.

Over half of the employers indicated a high impact on business of a lack of leadership and management skills. Communication and knowledge and decision sharing were identified as key areas needed for improvement.

Employers report that training expenditure is steady with half indicating a maintenance of existing levels and over 37 per cent intending to increase in the next 12 months. In order to meet skill needs there is a main focus on retraining existing staff (over 25 per cent) and employing experienced workers (over 21 per cent). In-house accredited and non-accredited training is the most favoured training response (over 47 per cent).

Employers develop links with the education sectors, especially the VET sector (over 32 per cent) more than the schools (around 19 per cent) or the higher education (around 18 per cent) sectors.

We will use this important data to develop key education and training policy to address skilling issues to enable our workforce to make an enhanced contribution to our rapidly changing economy.

A handwritten signature in black ink that reads "Innes Willox". The signature is written in a cursive style and is underlined with a single horizontal stroke.

Innes Willox  
Chief Executive  
Australian Industry Group

# Contents

Section 1: Key Findings	3
Section 2: Introduction	5
2.1 Industry Sector Distribution	5
2.2 Company Workforce Composition	5
Section 3: Skills Shortages	8
3.1 Overall Skills Shortages	8
3.2 Skills Shortages by Occupational Groupings	9
Section 4: Specific Skills Issues	12
4.1 Apprenticeship Training	12
4.2 Foundation Skills in the Workforce	16
4.3 Science, technology, Engineering and Maths Skills	18
4.4 Dissatisfaction with Graduates	22
4.5 Leadership and Management Skills	28
Section 5: Company Skills Strategies and Practices	34
5.1 Training Expenditure	34
Section 6: Links with Education Sectors	40
6.1 Links with Education Sectors	40
6.2 Future Links with Education Sectors	42

## Section 1: Key Findings

### Skills Shortages

- > Skills shortages remain a persistent problem for industry with about half of surveyed employers experiencing and expecting skills shortages.
- > Skills shortages are particularly prevalent for the occupation group “Technicians and Trade Workers” with half of the employers identifying this group as a first occupation of skills shortage.

### Apprenticeships and Traineeships

- > Over half of employers do not engage with apprenticeships/traineeships and this is growing.
- > School-based apprenticeships remain a significantly under-utilised pathway.
- > Employment of mature age apprentices/trainees is significant in the services, mining and construction sectors compared to school leavers.
- > The numbers of school leavers entering apprenticeships/traineeships are low except for manufacturing.
- > Employers are uncertain about engaging apprentices/trainees in the current economic climate.
- > Employers are concerned about the suitability of applicants, the availability of relevant training and literacy and numeracy issues.

### Foundation Skills

- > Over 87 per cent of employers report their business is affected by low levels of literacy/numeracy.
- > Employers identified a wide range of issues including poor completion of workplace documents (21.7 per cent), material wastage and errors (16.8 per cent) and time wasting (13.5 per cent).
- > Employers generally select internal training and support to address these issues.

### STEM Skills

- > Employers experience difficulty recruiting workers with STEM skills, especially Technicians and Trade Workers (24.6 per cent).
- > The key reasons for this are a lack of employability skills and workplace experience (38.6 per cent), a lack of qualifications relevant to the business (28.5 per cent) and a lack of applicants with STEM skills (28.3 per cent).
- > Employers seek to promote STEM skills and qualifications by providing some form of work placements (59.4 per cent) and engaging with schools (34.6 per cent).

### Graduates

- > The most important recruiting factors for higher education graduates are fit to the business culture (31.9 per cent) and relevant work experience (21.5 per cent).
- > Employers express some dissatisfaction with the skills of higher education graduates especially teamwork and communication (11.5 per cent) and self-management, planning and organising (9.6 per cent).

- > The most important factors recruiting VET graduates are the same as higher education graduates – fit to the business culture (29.9 per cent) and relevant work experience (22.8 per cent).
- > Employers express some dissatisfaction with the skills of VET graduates especially problem solving, initiative and enterprise (14.4 per cent), self-management, planning and organisation (13.6 per cent) and basic numeracy (12.6 per cent).
- > Employers are especially dissatisfied with the employability skills of school graduates; self-management, planning and organising (46 per cent), problem solving, initiative and enterprise (38 per cent) and team work and communication skills (33 per cent).
- > Employers express significant levels of dissatisfaction with the basic numeracy skills (36 per cent) and basic literacy (28 per cent) of school leavers.

### **Leadership and Management Skills**

- > Employers identified management and leadership development needs through the performance review process (49.5 per cent) and the development of business strategies (38.7 per cent).
- > Employers identified communication (27.1 per cent) and knowledge and decision sharing (23.1 per cent) as the main areas requiring improvement.
- > Over half of the surveyed employers indicated that a lack of leadership and management skills in their organisations was having a high impact on their business.

### **Training Expenditure**

- > Over half of the employers will maintain their current training expenditure and 37.8 per cent intend to increase expenditure.
- > The main reasons for changing training expenditure are a change in business conditions (27.1 per cent), a change in business costs and priorities (19.6 per cent) and a change in the relevance of training (14.7 per cent).

### **Meeting Skills Needs**

- > The major ways businesses intend to meet skill needs is by retraining existing staff on the job (25.9 per cent) and employing experienced employees (21.5 per cent).
- > The main occupational groups which are priorities for training and development are technicians and trade workers (24.4 per cent) and managers (21.2 per cent).
- > In-house accredited and non-accredited training is the most favoured training response by employers (47.5 per cent).
- > In relation to external accredited training employers do not distinguish between TAFE (35 per cent) and private RTOs (35.4 per cent).

### **Links with Education Sectors**

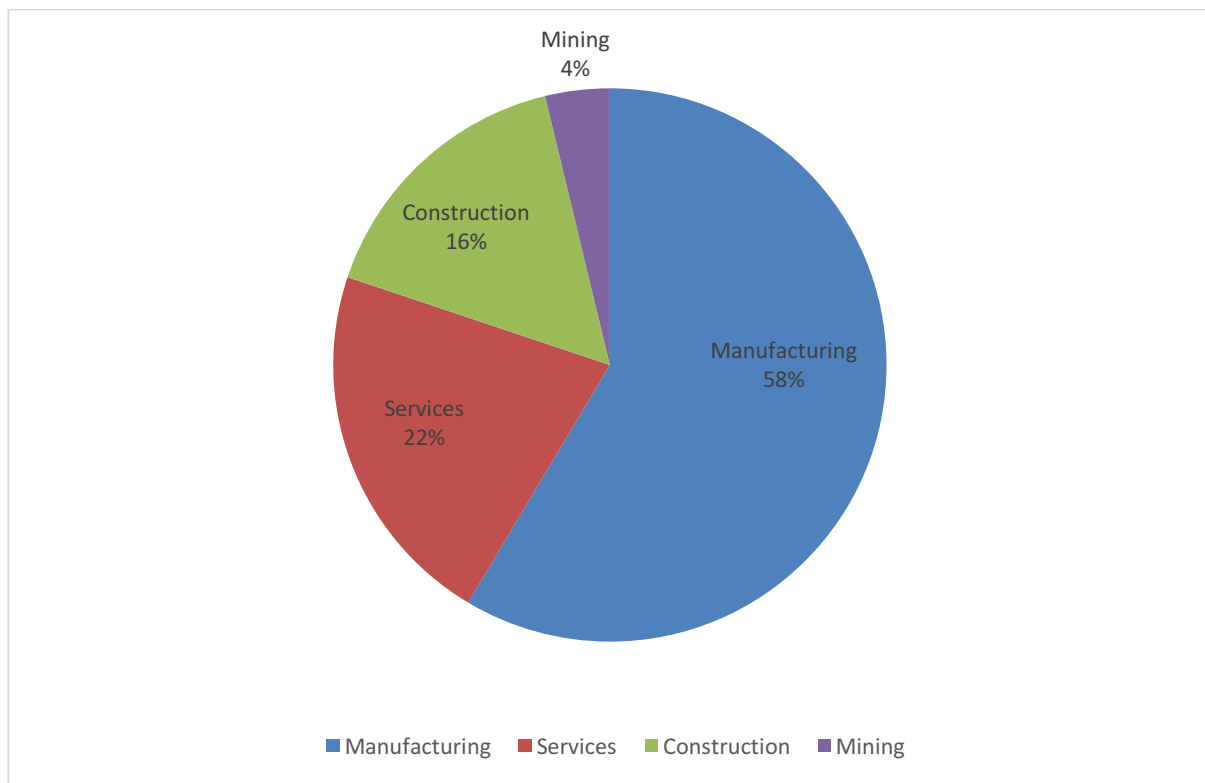
- > Employers tend to have greater links with the VET sector (32.8 per cent) than with higher education (18.8 per cent) and schools (17.9 per cent).
- > The links with schools are mainly for work experience (34.9 per cent) and work placements (33.2 per cent) and with universities for placements or internships (30.1 per cent).
- > Future links with all sectors remain steady: schools (83.9 per cent), VET sector (82.4 per cent) and higher education (73.7 per cent).

## Section 2: Introduction

### 2.1 Industry Sector Distribution

This report summarises the results from the Workforce Development Needs Survey 2016 and provides the Australian Industry Group with significant data about the workforce development and skills needs of employers. Similar surveys were also conducted in 2012 and 2014. The 2016 survey attracted responses from almost 300 companies. The company responses can be divided into four main industry sectors: manufacturing, services, construction and mining.

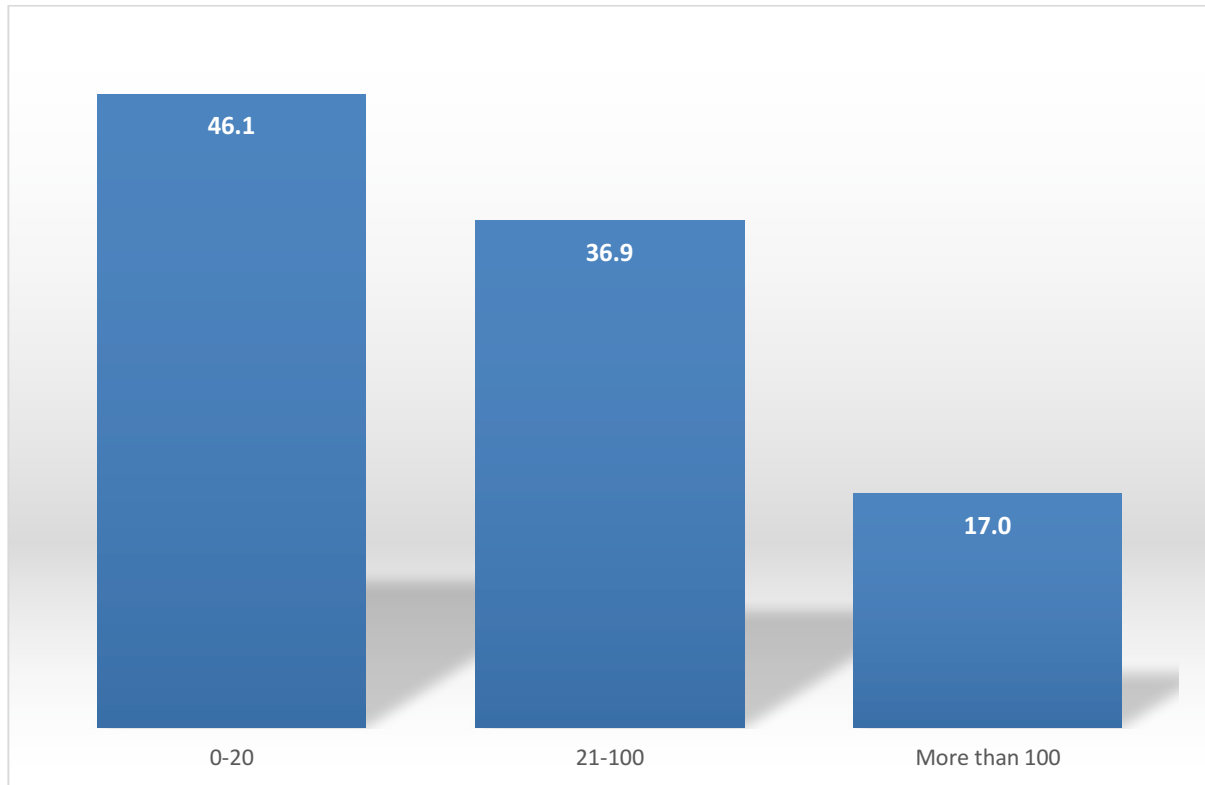
**Chart 1: Composition of employer survey responses**



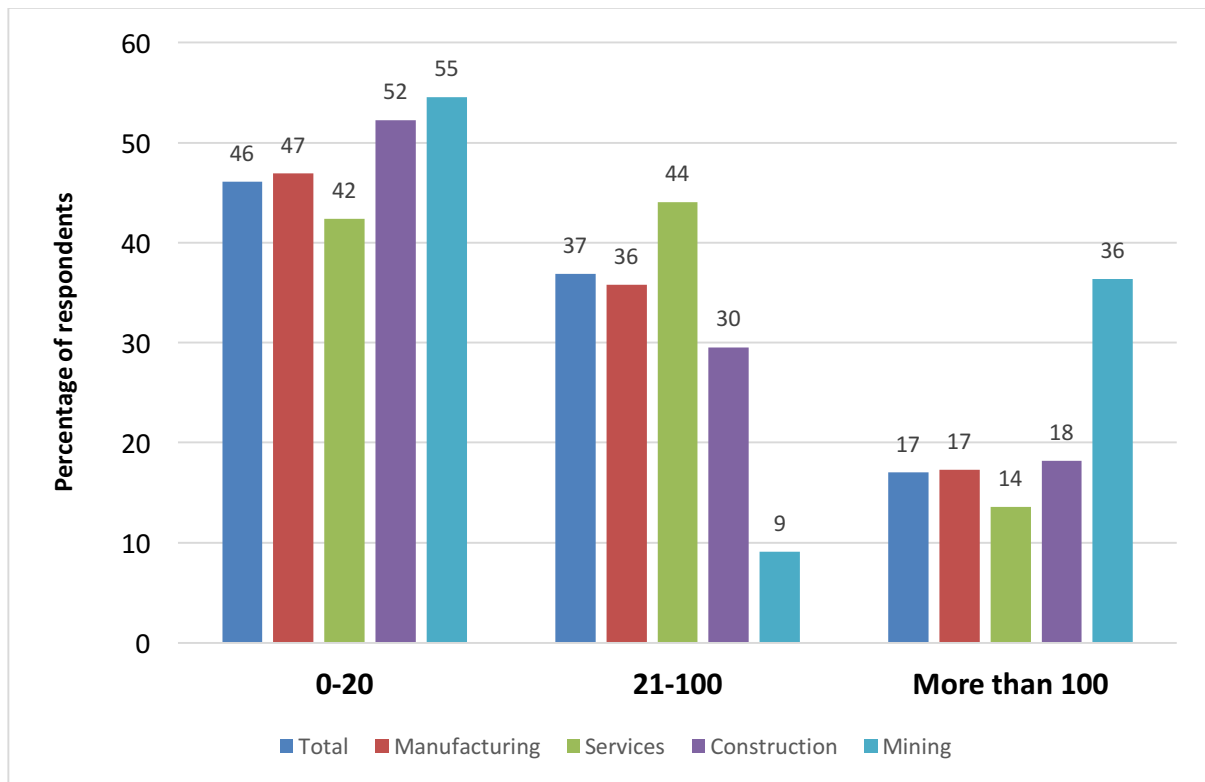
### 2.2 Company Workforce Composition

Within this industry sector breakdown companies provided information about the size of their workforce. Almost half the respondents (46.1 per cent) highlighted that their company has 1 – 20 employees, 36.9 per cent reported a workplace size of between 21 - 100 employees and 17 per cent of respondents have more than 100 employees.

**Chart 2: Full time employees**



**Chart 3: Full Time Employees by Industry Sector**



There are variations in the number of employees per company across the different industry sectors. In the smallest category of less than 20 employees per company the range was from services (42 per cent) to mining (55 per cent). The reverse was the case for companies with between 21 and 100 employees with the services sector having the largest representation (44 per cent) and the mining sector only 9 per cent. The category of more than 100 employees was spread relatively evenly apart from the mining sector which represented at least twice of any other sector at 36 per cent. However, it has to be remembered that that this category was the smallest of all three with only 17 per cent of the total.

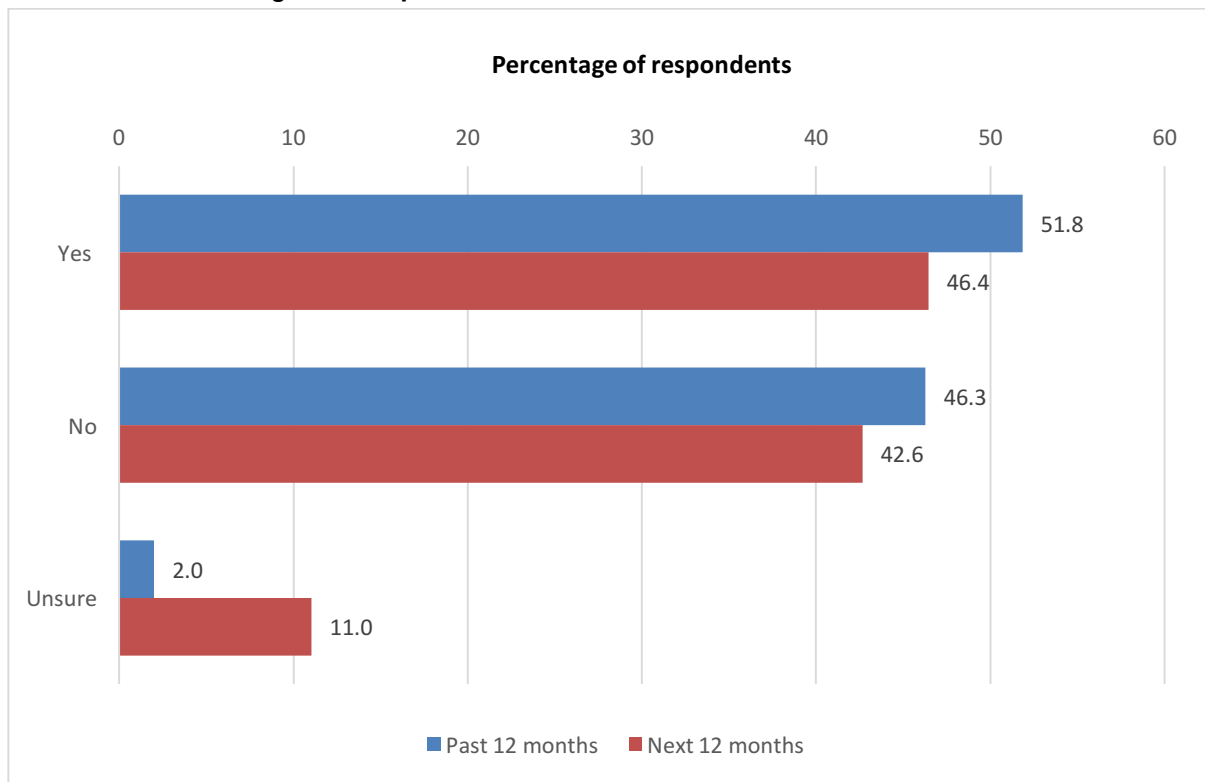


## Section 3: Skills Shortages

### 3.1 Overall Skills Shortages

Employers were asked if their companies have experienced any skills shortages and half of the respondents (51.8 per cent) reported that they have in the past 12 months. A slightly smaller response of 46.3 per cent reported no skills shortages and 2 per cent reported that they were unsure.

**Chart 4: Skills shortages in the past and next 12 months**



Employers were asked about their expectations of skills shortages in the next 12 months. Almost half of the respondents (46.4 per cent) reported that they will be expecting shortages, 42.6 per cent however stated that they will not be expecting skills shortages, whilst 11 per cent declared they were unsure.

In terms of expectations of skills shortages in the next 12 months there was a decrease in both categories. The expectation of skills shortages (46.4 per cent) was slightly less than the current situation (51.8 per cent) whereas the percentage of employers not experiencing skills shortages decreased from 46.4 per cent currently to an anticipated 42.6 per cent for the next 12 months.

There was a significant increase in the percentage of employers who are unsure about the state of skills shortages. This uncertainty has increased from 2 per cent currently to 11 per cent for the next 12 months. This increase may be a reflection of employer uncertainty about the state of the economy and their consequent skills needs.

### 3.2 Skills Shortages by Occupational Groupings

Employers were asked to share the top three occupations that were facing the most skills shortages within their businesses in the past 12 months. Technicians and Trades Workers are the largest area of concern by far, gaining the highest response within all three rankings; 52.2 per cent as the first occupation, 43 per cent as the second occupation and 40.9 per cent as the third occupation.

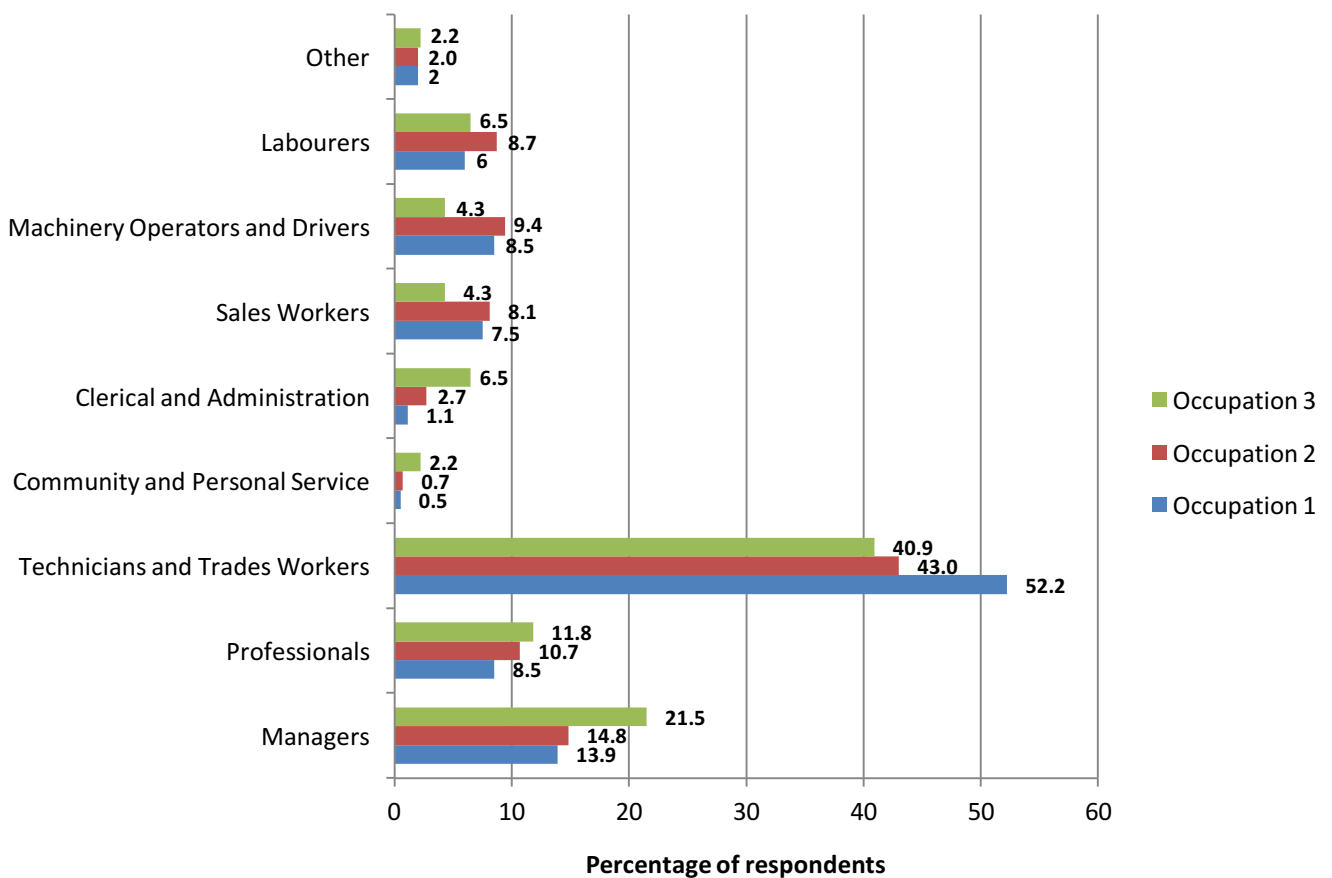
Managers and Professionals constitute the next largest groups. Employers reported the following skills shortages for Managers; (13.9 per cent) as the first occupation, 14.8 per cent as the second occupation and 21.5 per cent as the third occupation.

The same pattern was reported for Professionals at slightly lower rates: 8.5 per cent as the first occupation, 10.7 per cent as the second occupation and 11.8 per cent as the third occupation.

These results are similar to those reported in previous surveys. For example, in the 2012 survey employers reported that the significant areas of skills shortages were technicians and trade workers (33.3 per cent), professionals (20.4 per cent) and managers (15.9 per cent).

This data indicates that the skills shortages for technicians and trades workers in particular, is deteriorating over time.

**Chart 5: Top three job occupations with the most skill shortages in businesses in the past 12 months**



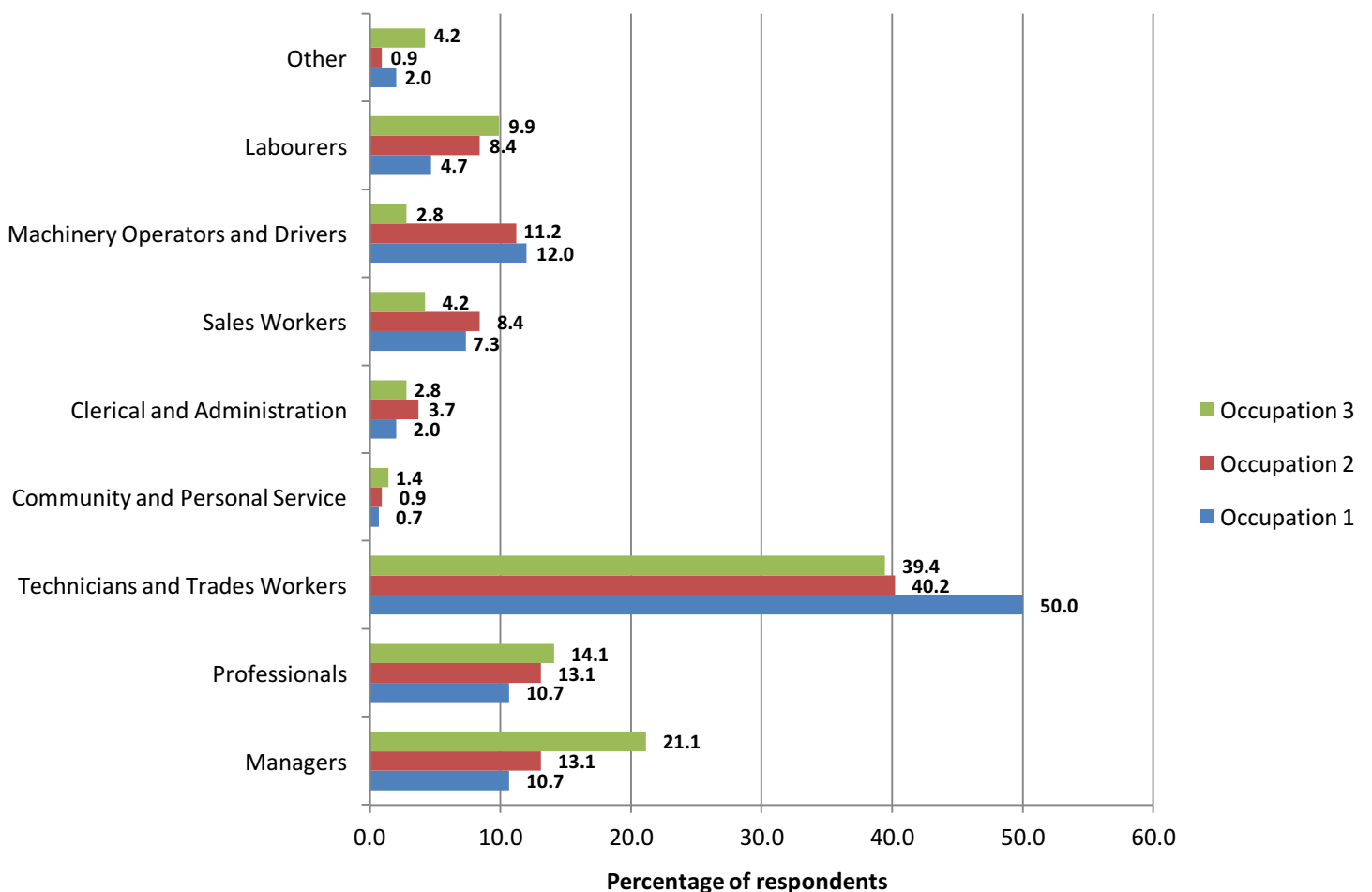
Employers were also asked to share the top three occupations where businesses expect to experience the most skills shortages in the next twelve months. Not surprisingly, the situation is similar to the current position.

Employers predict that technicians and trades workers will continue to be the largest area of concern to face skills shortages over the next twelve months: 50 per cent ranked this grouping as the first occupation, 40.2 per cent as the second occupation and 39.4 per cent as the third occupation.

The same pattern is repeated for Managers and Professionals. There are also expected skills shortages for Machinery Operators and Drivers as a first (12 per cent) and second occupation (11.2 per cent).

These are similar results to the 2012 skills survey. The major shortages anticipated in the next 12 months then were Technicians and Trades Workers (33.5 per cent), Professionals (22 per cent) and Managers (14.9 per cent). Again the anticipated skills shortages for Technicians and Trades Workers indicates a deteriorating pattern over time.

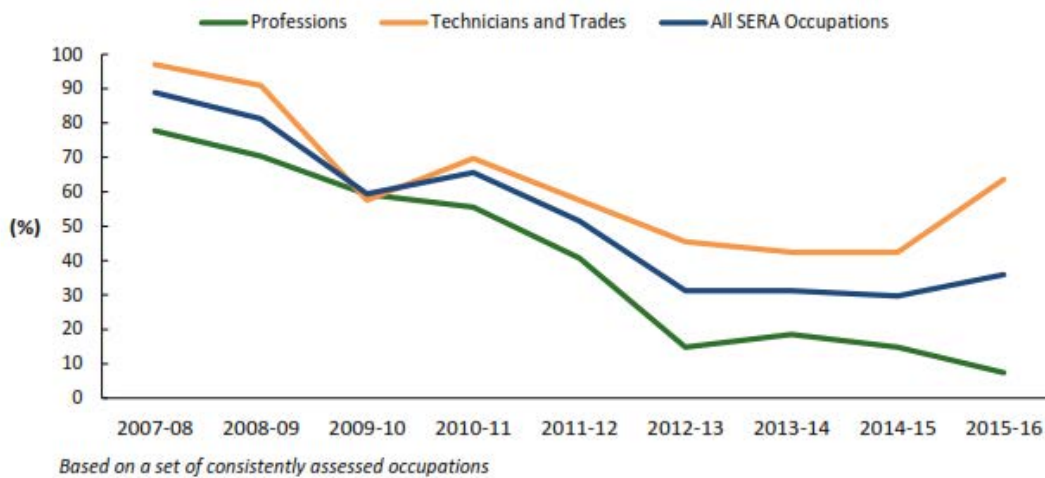
**Chart 6: Top three job occupations where businesses expect to experience the most skill shortages in the next 12 months**



These findings are consistent with the data provided by the Australian Government Department of Employment.<sup>1</sup> This data indicates an upturn in skills shortages for Technicians and Trades Workers of 61 per cent while the Survey of Employers who have Recently Advertised (SERA) has increased by 38 per cent.

The same data indicates that there are currently 21 trades considered to be in shortage including; engineering, ICT and science technicians; automotive and engineering trades workers; construction trades workers; electrotechnology and telecommunications trades workers; food trades workers and skilled animal and horticultural workers. This compares to only three professions considered to be in shortage. There are significantly larger numbers of applicants and suitable applicants for professional vacancies than for technicians and trade workers.

**Chart 7: Proportion of assessed occupations in shortage, Australia, 2007-08 to 2015-16 (%)**



The NCVER has reported on reasons employers experience recruiting difficulties in 2013 and 2015. The largest single factor in both years was shortage of skilled people in the industry.<sup>2</sup>

**Table 1: Reasons for recruitment difficulties, 2013 and 2015 (% of employers experiencing recruitment difficulties)**

	2013	2015
Limited applicants	46.7	45.7
Location is either remote or not desirable	14.2	12.8
Loss of skilled workers to other companies or industries	5.6	1.8
Not a career that is aspired to	6.7	5.5
People unwilling to take certain shifts	8.5	6.1
Poor work ethic	13.9	12.2
Shortage of skilled people in the industry	51.3	50.9
Wages and salaries are considered too low or uncertain	10.1	7.6
Other reasons	9.6	10.8

<sup>1</sup> Skill Shortages – Statistical Summary and Skill Shortage List Australia, Labour Market Research and Analysis Branch, Department of Employment.

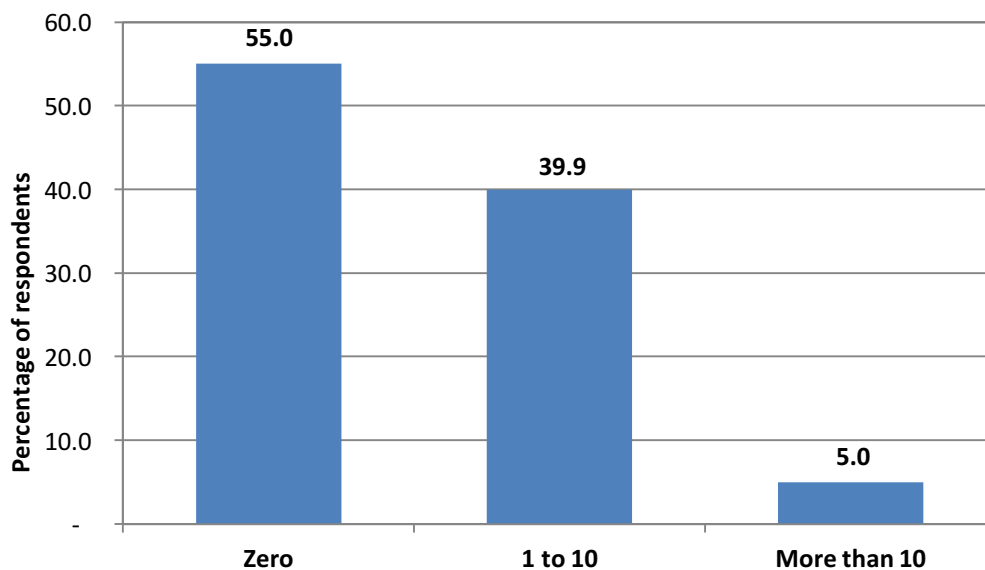
<sup>2</sup> Employers’ use and views of the VET system, 2015, NCVER, Commonwealth of Australia, 2015, Table 3, page 8.

## Section 4: Specific Skills Issues

### 4.1 Apprenticeship Training

A key component of the Workforce Development Needs Survey concerns Australian Apprenticeships. Employers were asked how many full time equivalent (FTE) apprentices or trainees they currently employ. The largest response was that over half of the respondents (55 per cent) stated that they do not engage any apprentices. Of those employers that do participate in apprenticeship arrangements 39.9 per cent responded that they currently employ 1 – 10 apprentices, while only 5 per cent employ more than 10.

**Chart 8: Full-time apprentices**



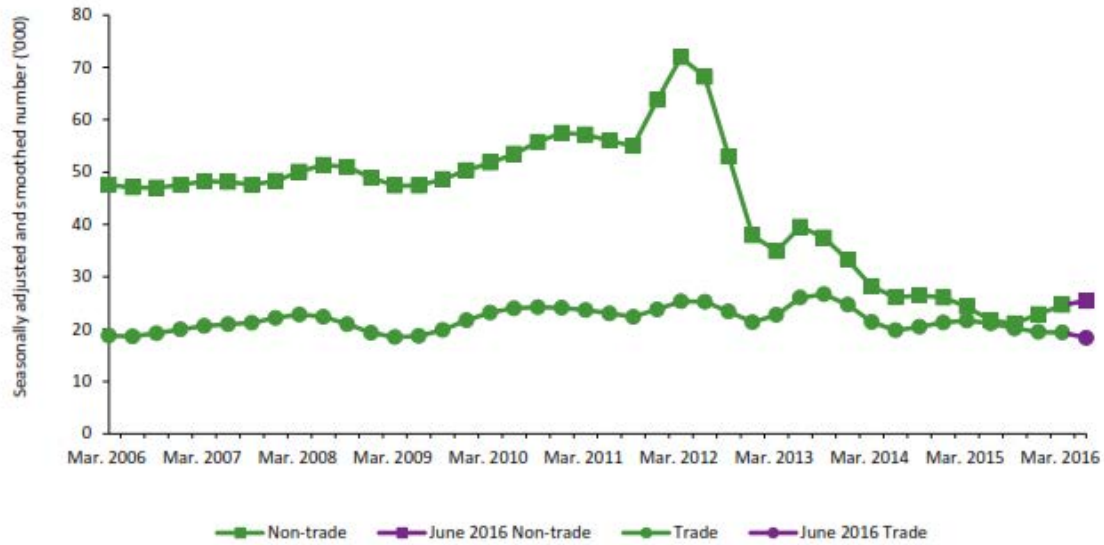
Compared to the 2014 survey there is now a greater percentage of employers without apprentices or trainees. This has increased from 51.84 per cent to 55 per cent. There has been a slight decrease in the percentage of employers with 1 – 10 apprentices and trainees from 40.81 per cent to 39.9 per cent. The percentage of employers with more than ten apprentices/trainees has also decreased from 7.35 per cent to 5 per cent.

The latest data released by the NCVER indicates that there were 286,500 apprentices and trainees in training as at the end of March 2016.<sup>3</sup> This is a decrease of 10.2 per cent from March 2015 and represents the lowest level of participation in a decade. The percentage of Australian workers employed as an apprentice or trainee has declined from 3.3 per cent to 2.7 per cent over this period.

The same pattern is evident for commencements which are also among the lowest for a decade and are currently around half of what they were in June 2012.

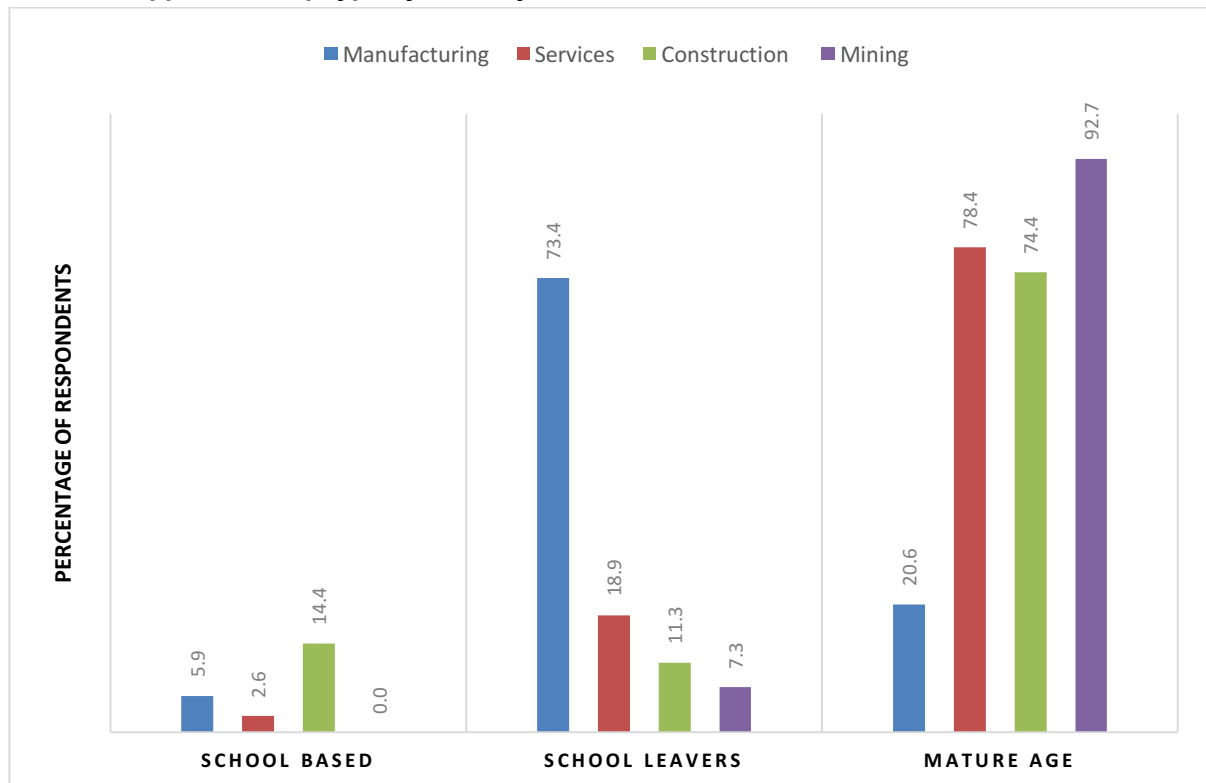
<sup>3</sup> Apprentices and trainees 2016 March Quarter, NCVER, Commonwealth of Australia, 2016, Figure 1, page 6.

**Chart 9: Trades and non-trades commencements, seasonally adjusted and smoothed, March 2006 – June 2016**



Consideration was given to the types of apprentices and trainees engaged across the surveyed industry sectors. Of those employers who engage apprentices relatively few source school-based apprenticeships and traineeships. The highest is the construction sector with 14.4 per cent while manufacturing (5.9 per cent) and the services sector (2.6 per cent) were very low. There were no school-based apprentices and trainees reported from the mining sector.

**Chart 10: Apprenticeship type by industry area**



School leavers as a source of apprentices and trainees produced a much larger response for employers, especially in the manufacturing industry (73.4 per cent). The services sector reported 18.9 per cent, construction 7.3 per cent and again the mining industry was the lowest in this category with 7.3 per cent.

The engagement of mature age apprentices drew significant responses from mining (92.7 per cent), the services sector (78.4 per cent) and construction (74.4 per cent). So apprentices and trainees are significantly represented in the mature age arrangements whereas school leavers are not taking up apprenticeship and traineeship opportunities at the same rate. The school-based apprenticeship and traineeship pathway remains significantly under-utilised in this data. A key finding from this data is that apprenticeships and traineeships are unattractive to young people.

The school-based apprenticeships results are confirmed by NCVET data which reveals relatively low levels of participation, recent declines and a very uneven spread across jurisdictions.<sup>4</sup>

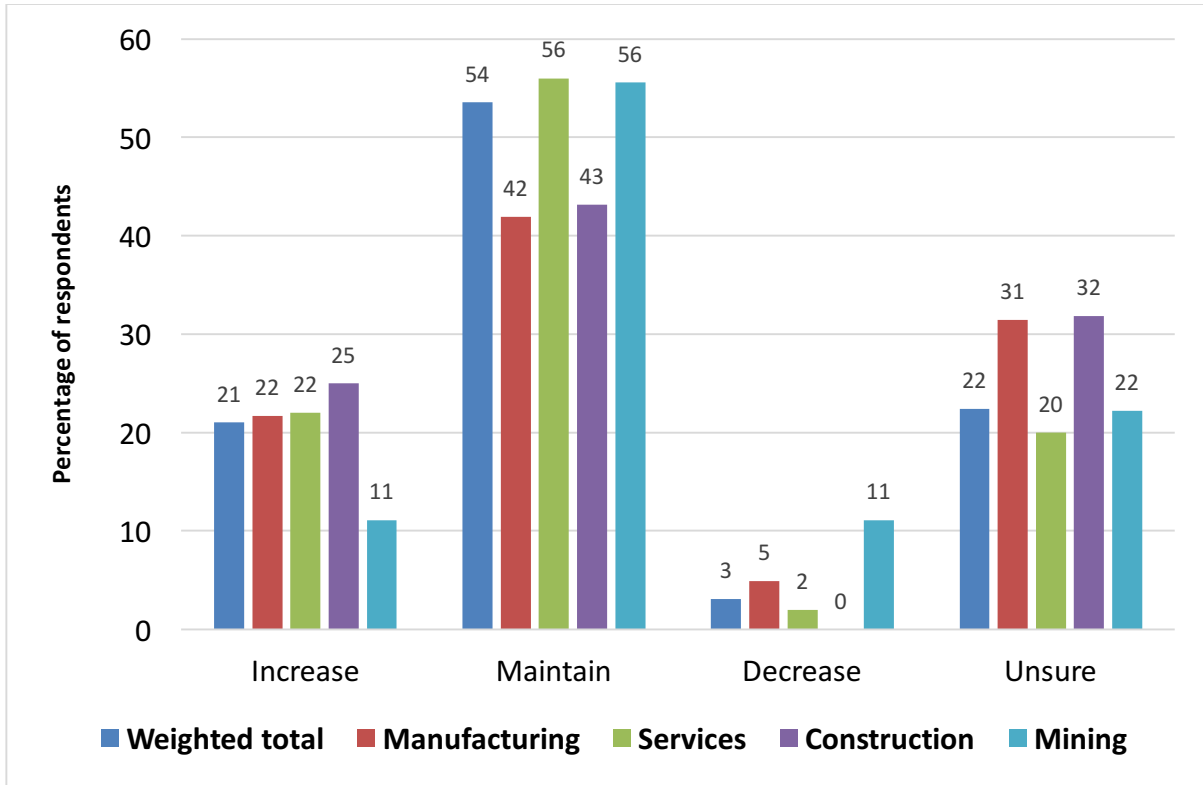
**Table 2: State and territory summaries of school-based apprentices and trainees, 2011 - 2015**

	2011 (’000)	2012 (’000)	2013 (’000)	2014 (’000)	2015 (’000)	2014–15 % change
<b>School-based apprentices and trainees</b>						
New South Wales	2.4	2.3	2.5	2.8	2.2	-21.0
Victoria	3.9	4.2	3.6	3.9	3.6	-8.2
Queensland	8.9	13.2	13.1	11.7	11.1	-4.6
South Australia	1.1	0.9	0.9	0.3	1.1	**
Western Australia	1.1	1.2	1.1	1.2	1.2	-0.1
Tasmania	0.6	0.7	0.6	0.7	0.6	-7.0
Northern Territory	0.1	0.1	-	0.2	0.2	0.6
Australian Capital Territory	0.4	0.4	0.3	0.2	0.1	**
<b>Total school-based apprentices and trainees</b>	<b>18.5</b>	<b>23.0</b>	<b>22.1</b>	<b>21.0</b>	<b>20.1</b>	<b>-4.2</b>

Employers were asked whether they intend to increase or decrease apprentice and trainee numbers over the next 12 months. Over half of the respondents (53.5 per cent) said that they would maintain their current intake of apprentice and trainees. This reflects a cautious approach to the future in keeping with the current economic challenges that many employers face. Within this context it is reassuring that 21 per cent of businesses intend to increase their apprentice numbers over the next 12 months and only 3.1 per cent intend to decrease numbers. A large response of 22.4 per cent for “unsure” again indicates the impact of economic uncertainty.

<sup>4</sup> VET in Schools 2015, NCVET, Commonwealth of Australia, 2016, Table 2.

**Chart 11: Employment intentions for apprentices for the next 12 months**

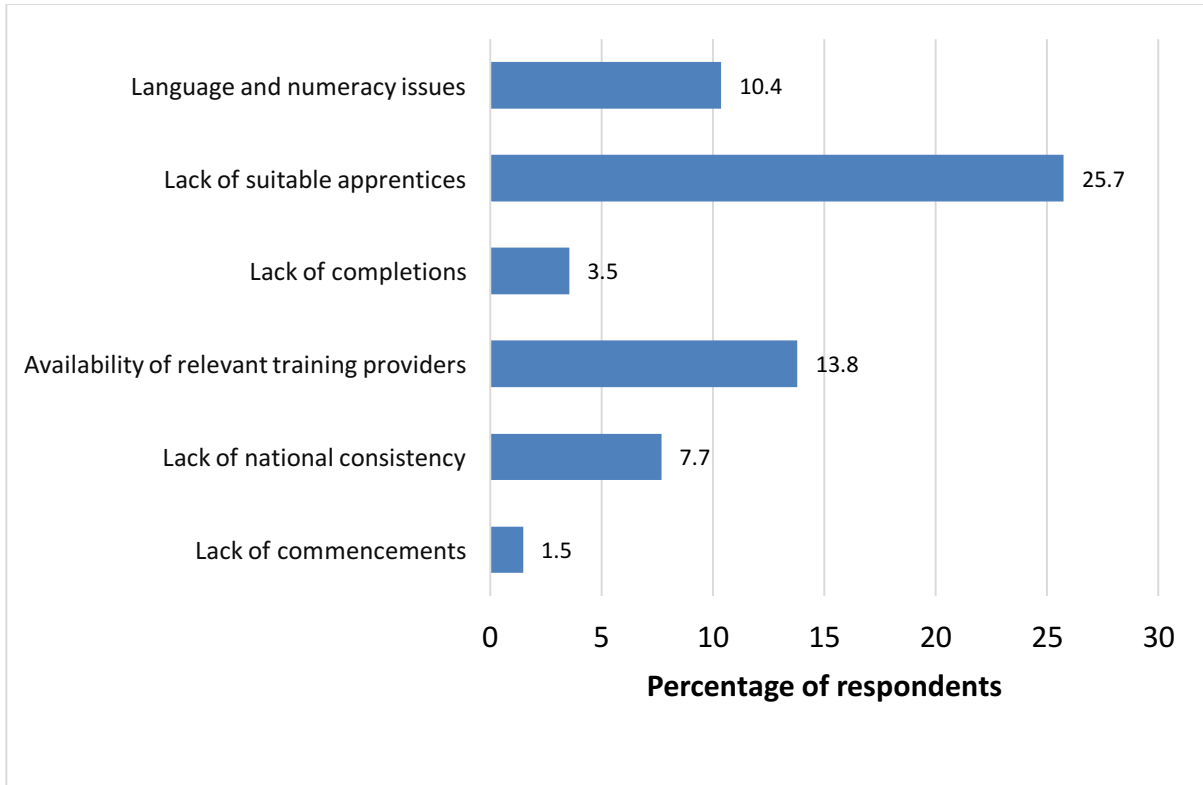


In comparison with Ai Group's 2014 survey, there has been a slight increase in employers intending to maintain their apprentices/trainees from 49.8 per cent to 53.5 per cent. While still remaining relatively high there has been a decrease in those employers who are unsure about their intentions – a decrease from 26.2 per cent in 2014 to 22.4 per cent in 2016. On a more positive note employers intending to increase their levels increased from 16.9 to 21 per cent. Those intending to decrease numbers has also reduced from 7.2 per cent to 3.1 per cent.

There are issues affecting the take-up of apprenticeships and traineeships. Just over a quarter of respondents (25.7 per cent) stated that the main area of concern is a lack suitable apprentices while 13.8 per cent drew attention to the availability of relevant training providers. A further 10.4 per cent identified literacy and numeracy issues as a concern.



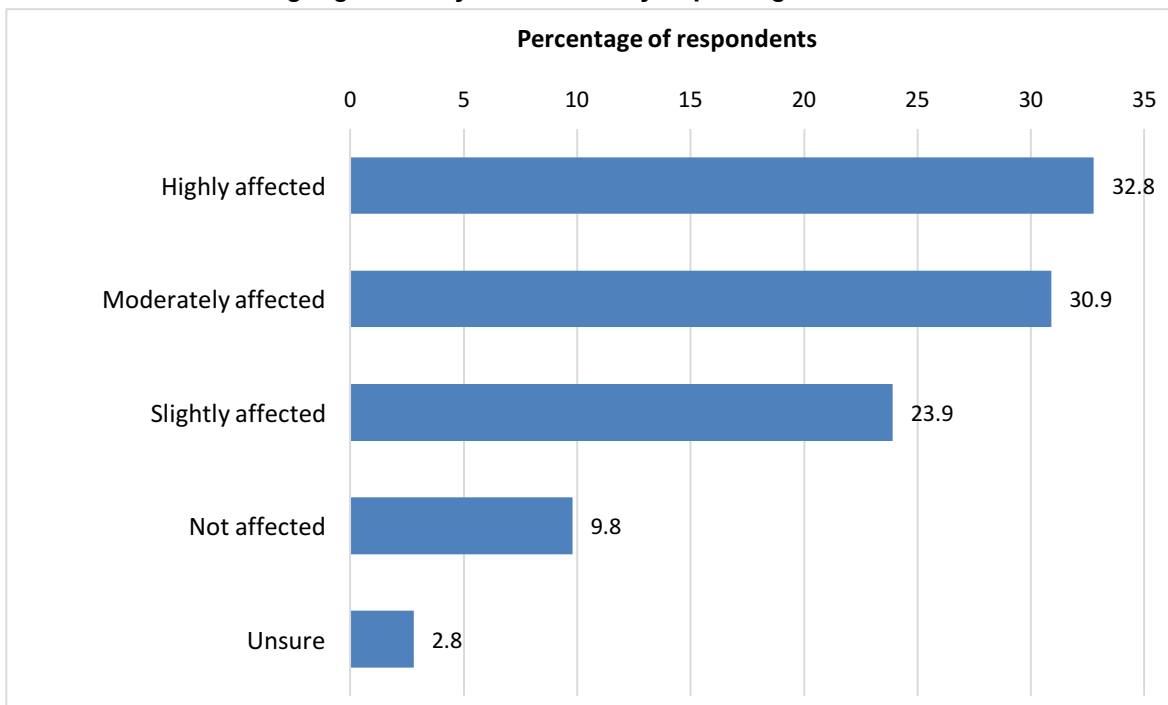
**Chart 12: Issues of concern regarding apprenticeships and traineeships**



**4.2 Foundation Skills in the Workforce**

In recent years, employers have regularly expressed their concern about the level of literacy and numeracy in the workplace and the impact this has on business. This information was again requested of employers.

**Chart 13: Levels of language, literacy and numeracy impacting business**

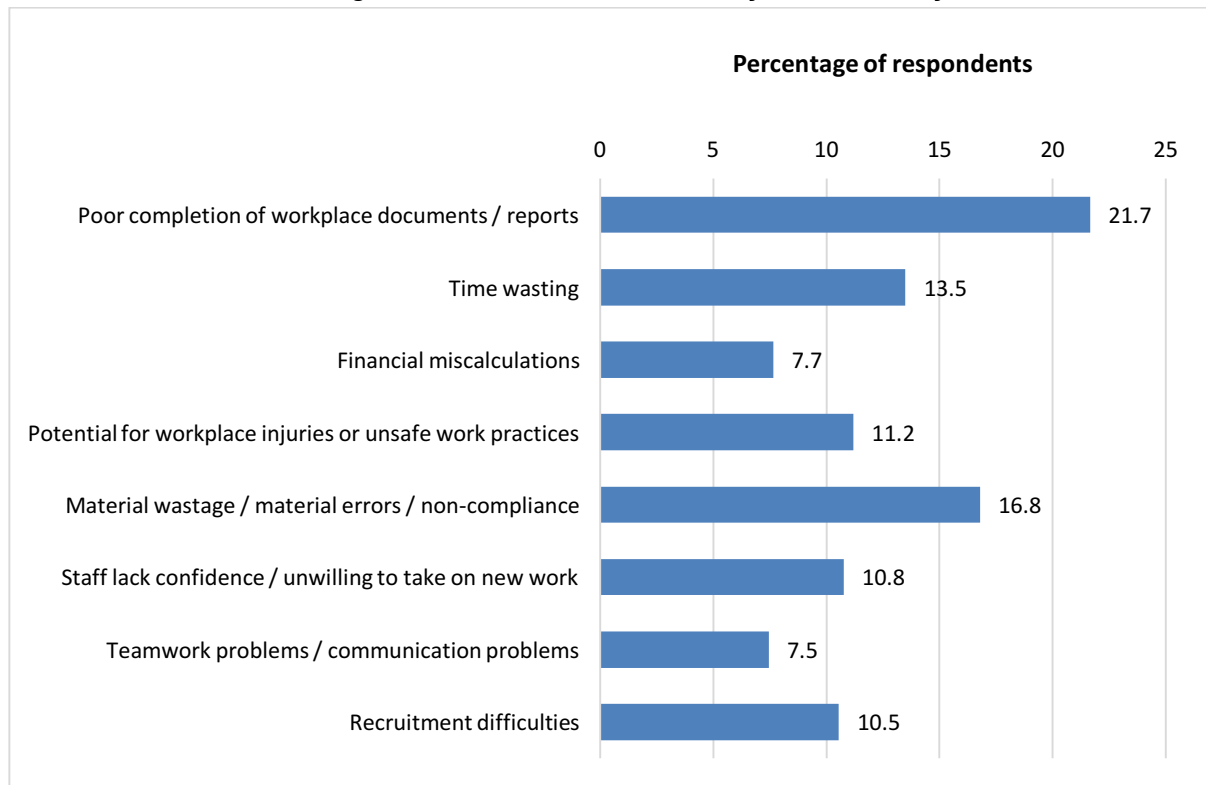


The largest single response by employers was ‘highly affected’ at 32.8 per cent. Over half of the responses (63.7 per cent) indicated either ‘highly affected’ or ‘moderately affected’. Just under 10 per cent of employers indicated that they are not affected and 2.8 per cent nominated unsure. So overall, 87.6 per cent of employers have indicated that their business is affected by low levels of literacy and numeracy.

The last previous occasion when employers were specifically asked this question was for the 2012 Workforce Development Needs Survey. On that occasion only 6.6 per cent of employers indicated that the impact of low literacy and numeracy on business was not applicable to them – that is 93.4 per cent identified this as a problem.<sup>5</sup> So the intervening four years has seen a slight improvement in what employers are reporting but clearly the issue remains one of considerable significance.

Employers were further asked about the specific nature of problems affecting business as a result of the low levels of literacy and numeracy skills of the workforce. A wide range of issues were identified with the most commonly reported being poor completion of workplace documents and reports (21.7 per cent), material wastage and errors due to non-compliance (16.8 per cent) and time wasting (13.5 per cent).

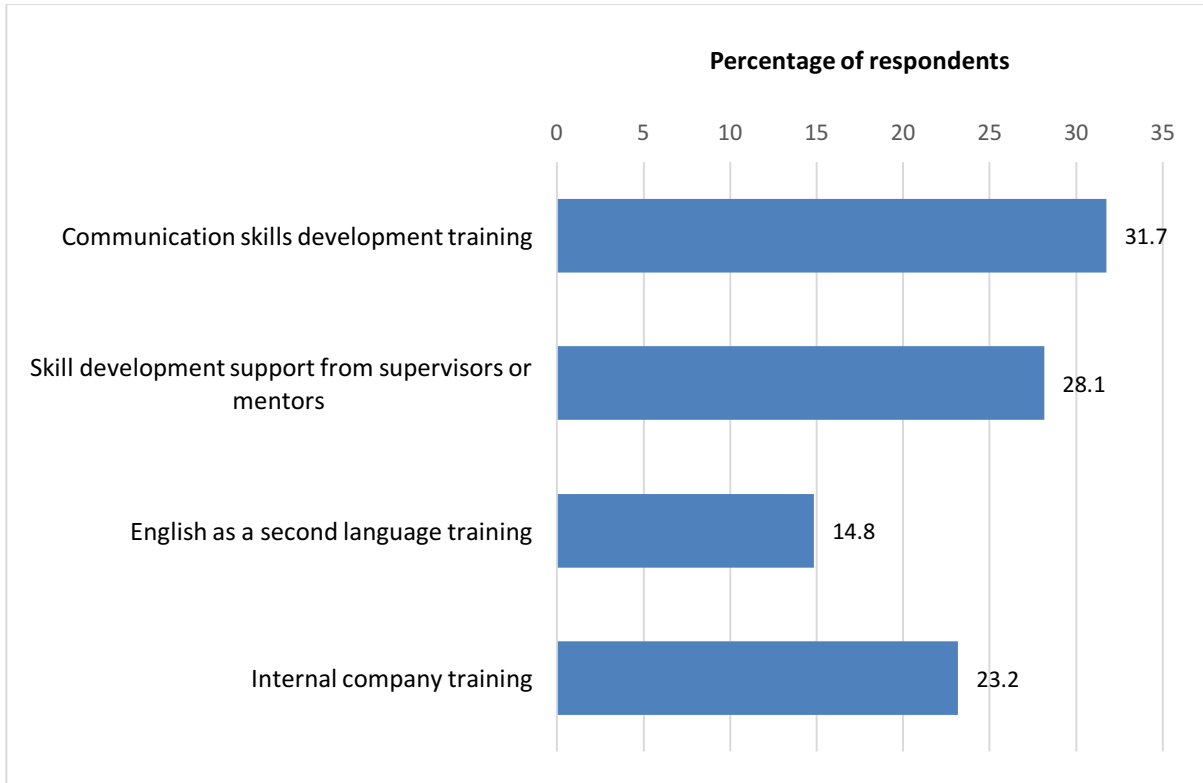
**Chart 14: Problems affecting business due to lack of literacy and numeracy skills**



These three problem areas have been consistently reported as the highest. For example, the 2012 results were poor completion of workplace documents (21.1 per cent), material wastage (11.5 per cent) and time wasting (17.7 per cent).

<sup>5</sup> Getting it Right: Foundation Skills for the Workforce, Australian Industry Group, October 2013.

**Chart 15: Areas to improve literacy and numeracy in the workplace**



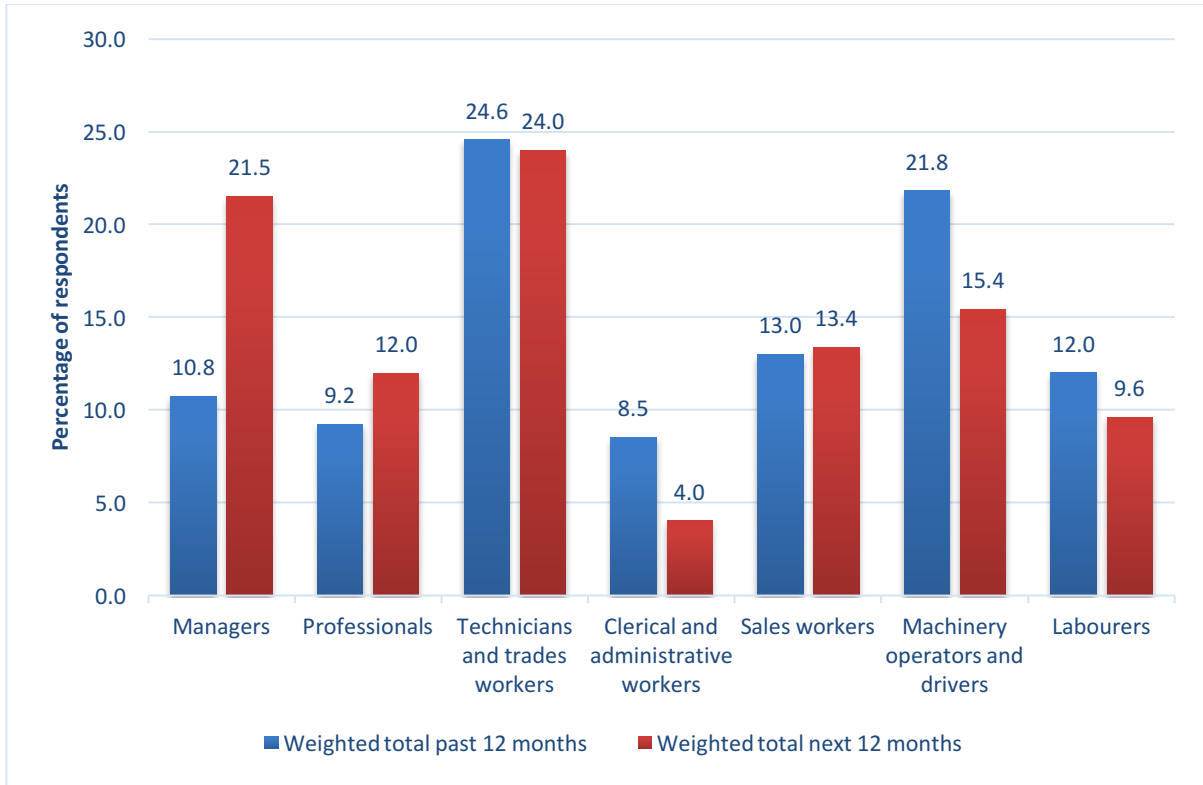
There is interest in the measures that employers adopt to address these workforce literacy and numeracy issues. The most commonly reported measures were largely internal to the companies affected: communication skills development training (31.7 per cent), skill development support from supervisors or mentors (28.1 per cent) and internal company training (23.2 per cent).

These three main responses have been prominent in all Workforce Development Needs Surveys. In 2014 the responses were: communication and skills development training (12.3 per cent), skill development support from supervisors and mentors (22.9 per cent) and internal company training (20.9 per cent).

### 4.3 Science, Technology, Engineering and Maths (STEM) Skills

In recent years a great deal of attention has been devoted to the acquisition of individuals with STEM (Science, Technology, Engineering, Maths) skills in the workplace. These have been identified as being increasingly important to the economy. Employers were asked to what extent they experience difficulty recruiting workers with these skills.

**Chart 16: Difficulties recruiting STEM individuals**



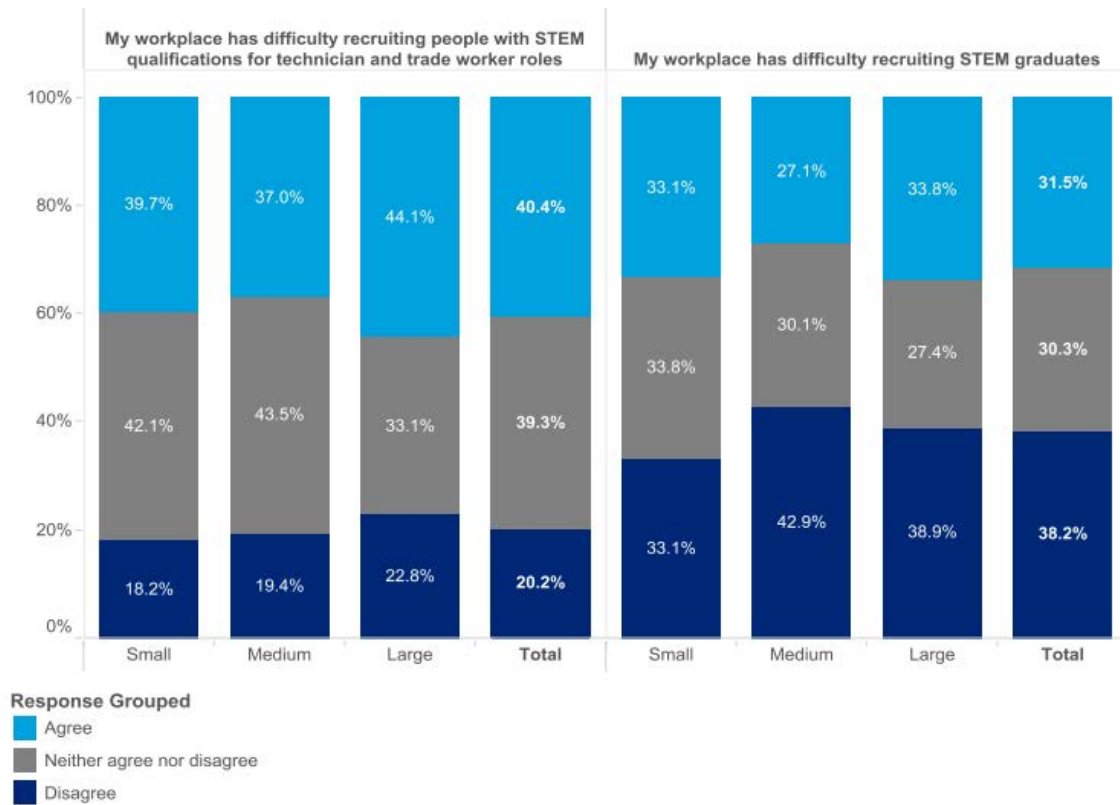
In terms of occupation groups Technicians and Trade Workers have proven to be the most difficult to recruit in the past 12 months (24.6 per cent) and are expected to be the most difficult for the next 12 months (24 per cent). Machinery Operators and Drivers as an occupation category were difficult to recruit in the last 12 months (21.8 per cent) although this is expected to ease in the following year (15.4 per cent). The largest anticipated increase in recruiting difficulty in the next 12 months is Managers (21.5 per cent) up from 10.8 per cent currently.

When consideration is given to individual sectors the anticipated difficulty of recruiting Technicians and Trade Workers increases significantly. The level of expected difficulty is 30.2 per cent in manufacturing and 29 per cent in construction.

These results are similar to those found by Deloitte Access Economics in a report to the Commonwealth Office of the Chief Scientist.<sup>6</sup> In this instance employers were required to agree or disagree with the provided statements. Overall, 40.4 per cent of respondents had difficulty recruiting people with STEM qualifications for technician and trade worker roles and 31.5 per cent had difficulty recruiting STEM graduates.

<sup>6</sup> Australia’s STEM workforce: a survey of employers, Office of the Chief Scientist and Deloitte Access Economics, Deloitte Access Economics Pty Ltd, 2014, page 36.

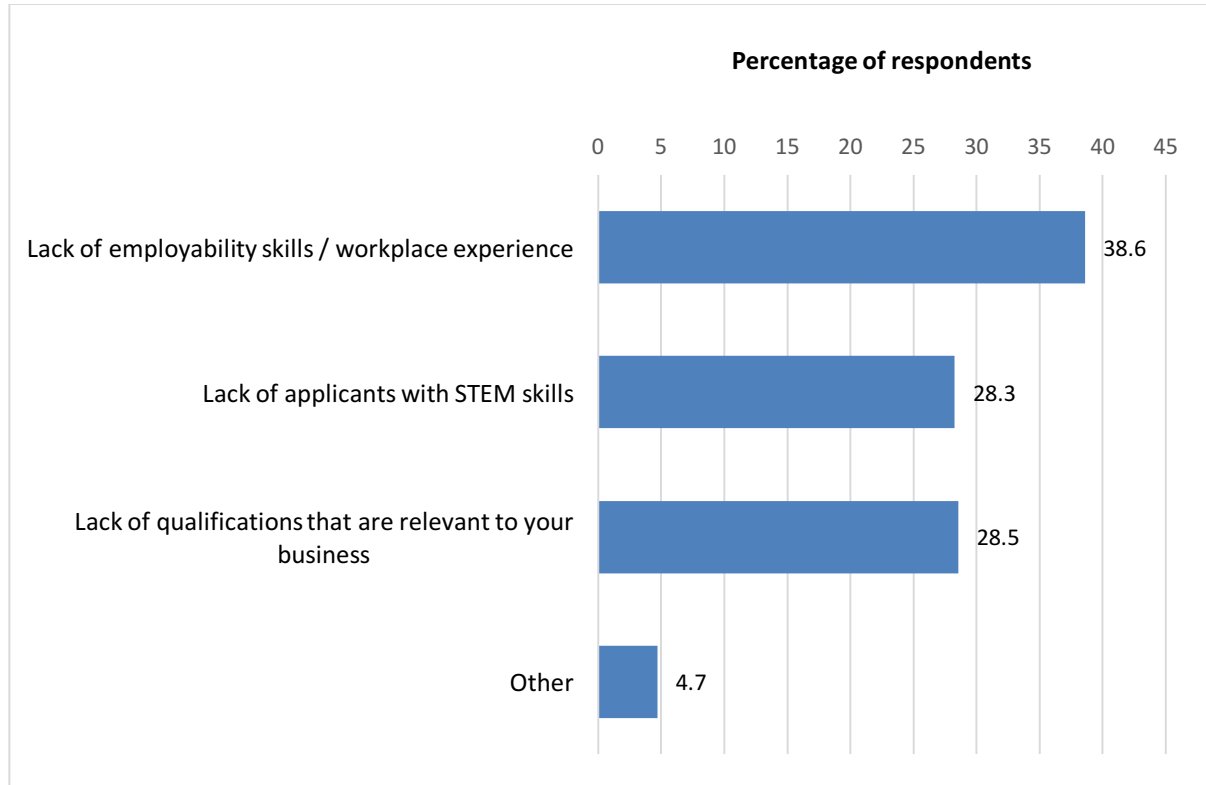
**Chart 17: Difficulties recruiting people with STEM qualifications**



Source: Deloitte Access Economics, STEM Employer Survey (2013)

Employers reported the main reasons they are experiencing difficulty recruiting workers with STEM skills over the previous 12 months. The most commonly reported reason was the lack of employability skills and workplace experience (38.6 per cent). The other key factors were a lack of suitable applicants with STEM skills (28.3 per cent) and a lack of qualifications relevant to the business (28.5 per cent).

**Chart 18: Difficulties in recruiting STEM skilled staff in the past 12 months**



There have been some interesting trends across the main barriers to recruiting STEM qualified workers over the last three surveys. The lack of employability skills and workplace experience has become the largest barrier. The lack of suitable applicants with STEM skills has increased in importance from 24.9 per cent in 2012 to 28.3 per cent in 2016. A lack of relevant qualifications has been a more volatile response. It almost doubled from 18.3 per cent in 2012 to 36.2 per cent in 2014 and then reduced to 28.5 per cent in 2016.

**Table 3: Barriers to STEM Skills Employment 2012 - 2016**

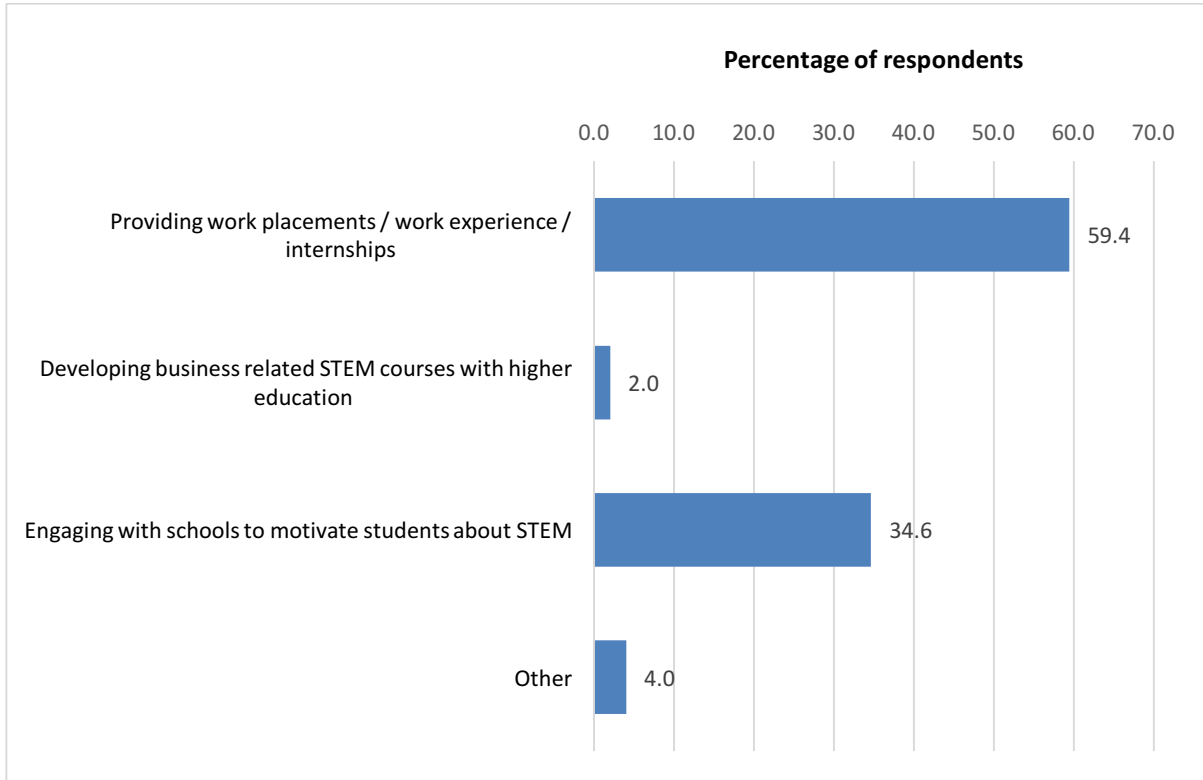
STEM Skills Barrier	2016 (%)	2014 (%)	2012 (%)
<b>Lack of employability skills/workplace experience</b>	38.6	34	36.2
<b>Lack of applicants with STEM skills</b>	28.3	29.7	24.9
<b>Lack of relevant qualifications</b>	28.5	36.2	18.3

Given these recruitment difficulties employers have taken steps to promote STEM skills and qualifications. There are three main measures that have been adopted. Over half of the surveyed employers (59.4 per cent) provide work placements, work experience or internships. Others engage with schools to motivate students about STEM skills (34.6 per cent).

There has been some movement in the relative importance of these responses since the 2014 survey. The provision of some form of work placements, while remaining the single largest response,

has decreased from 61.1 per cent in 2014 to 59.4 per cent in 2016. Engaging with schools about STEM skills has grown: it was 29.5 per cent in 2014 and 34.6 per cent in 2016. On the other hand, engaging with higher education about STEM skills has fallen from 9.3 per cent in 2014 to 2 per cent in 2016.

**Chart 19: Promotion of STEM skills and qualifications**

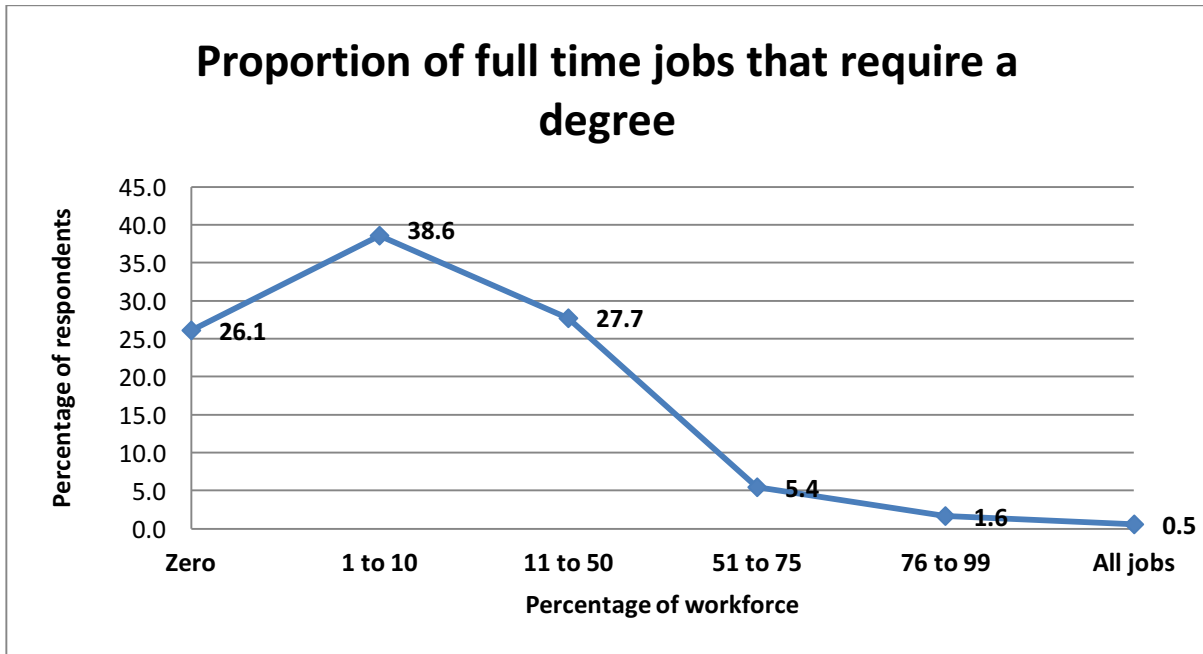


**4.4 Dissatisfaction with Graduates**

A further area of skills issues for employers relate to graduates from the VET, Higher Education and school sectors. Initially, there is a consideration about whether a university education is required for the workforce. Specifically, employers were asked what proportion of all FTE jobs require a degree qualification.

The survey results indicate that 26.1 per cent of all respondents reported that none of the jobs in their workplace require a degree. In total, 92.4 per cent have indicated that up to half of their workforce do not require a degree. A relatively small group of respondents (7.5 per cent) indicated that over half of their workforce require a degree.

Chart 20: Proportion of all full time jobs that require a degree



The Australian Bureau of Statistics has reported on the connection between higher education qualifications and employment.<sup>7</sup> Of those 15 to 74 year olds enrolled in formal study in May 2015, 71 per cent were engaged in non-school qualifications. Of those studying a non-school qualification 40 per cent were enrolled in a Bachelor degree and 1.2 million (41 per cent) were attending a higher education institution.<sup>8</sup> So the number of young people engaged in higher education is increasing and there has been a growth in undergraduate enrolments of over 28 per cent between 2006 and 2015.<sup>9</sup>

In terms of the achievement of the highest non-school qualification, almost a third of those 15 to 74 year olds (29 per cent) had a Bachelor degree and 54 per cent of these were employed as Professionals.<sup>10</sup>

<sup>7</sup> 6227.0 Education and Work, Australia, May 2015, [www.abs.gov.au/ausstats](http://www.abs.gov.au/ausstats)

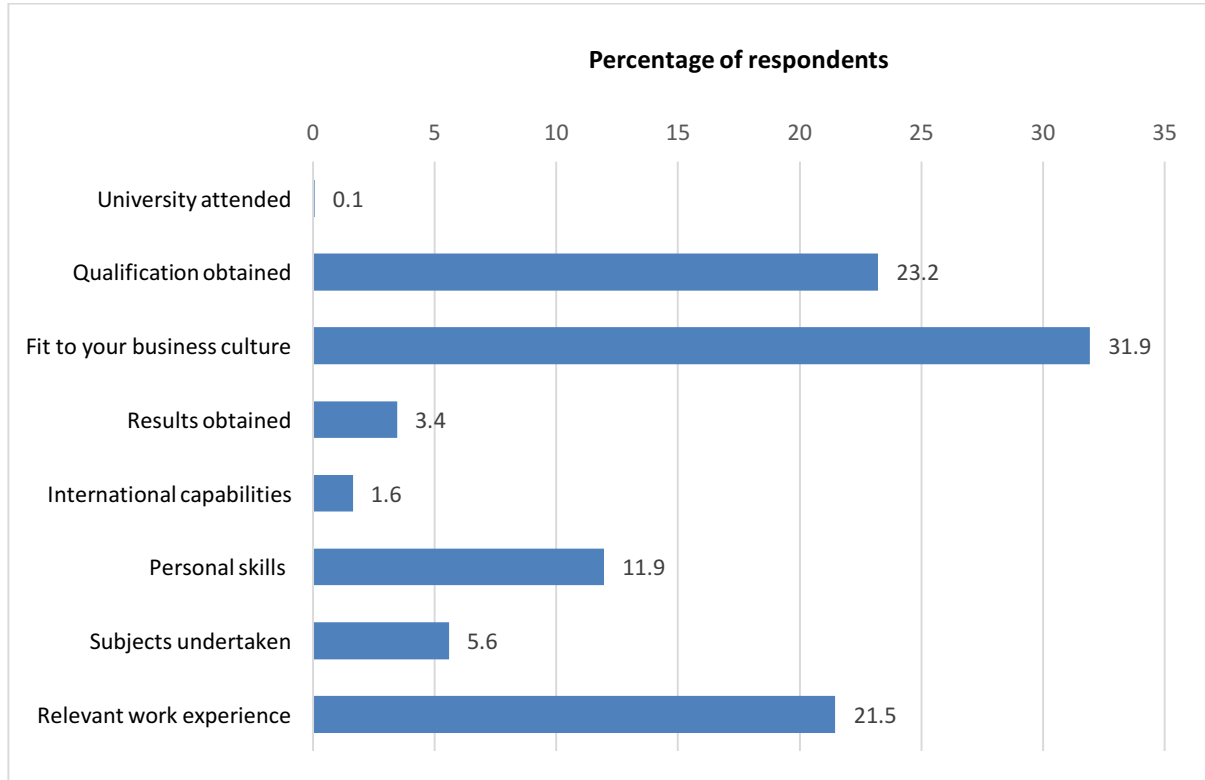
<sup>8</sup> 6227.0 Education and Work, Australia, May 2015, [www.abs.gov.au/ausstats](http://www.abs.gov.au/ausstats)

<sup>9</sup> 6227.0 Education and Work, Australia, May 2015, [www.abs.gov.au/ausstats](http://www.abs.gov.au/ausstats)

<sup>10</sup> 6227.0 Education and Work, Australia, May 2015, [www.abs.gov.au/ausstats](http://www.abs.gov.au/ausstats)



**Chart 21: Recruitment factors for higher education graduates**



Ai Group’s survey sought from businesses the most important factors when employing higher education graduates. Fitting in with business culture was ranked by 31.9 per cent of respondents as the most important factor when recruiting higher education graduates. The qualification obtained was ranked first by 23.2 per cent of respondents, while 21.5 per cent ranked relevant work experience first. These results were similar to those reported in Ai Group’s 2014 survey with the same recruitment factors ranked first.

There is some correlation with the key selection criteria used by employers reported in the Graduate Outlook report provided by Graduate Careers Australia.<sup>11</sup> Academic results (24.3 per cent), work experience (19.6 per cent) and cultural fit (18.7 per cent) were common prominent factors. In this report, communication skills emerged as the most reported key selection criterion (48.6 per cent).<sup>12</sup>

<sup>11</sup> Graduate Outlook 2014, Graduate Careers Australia, page 16.

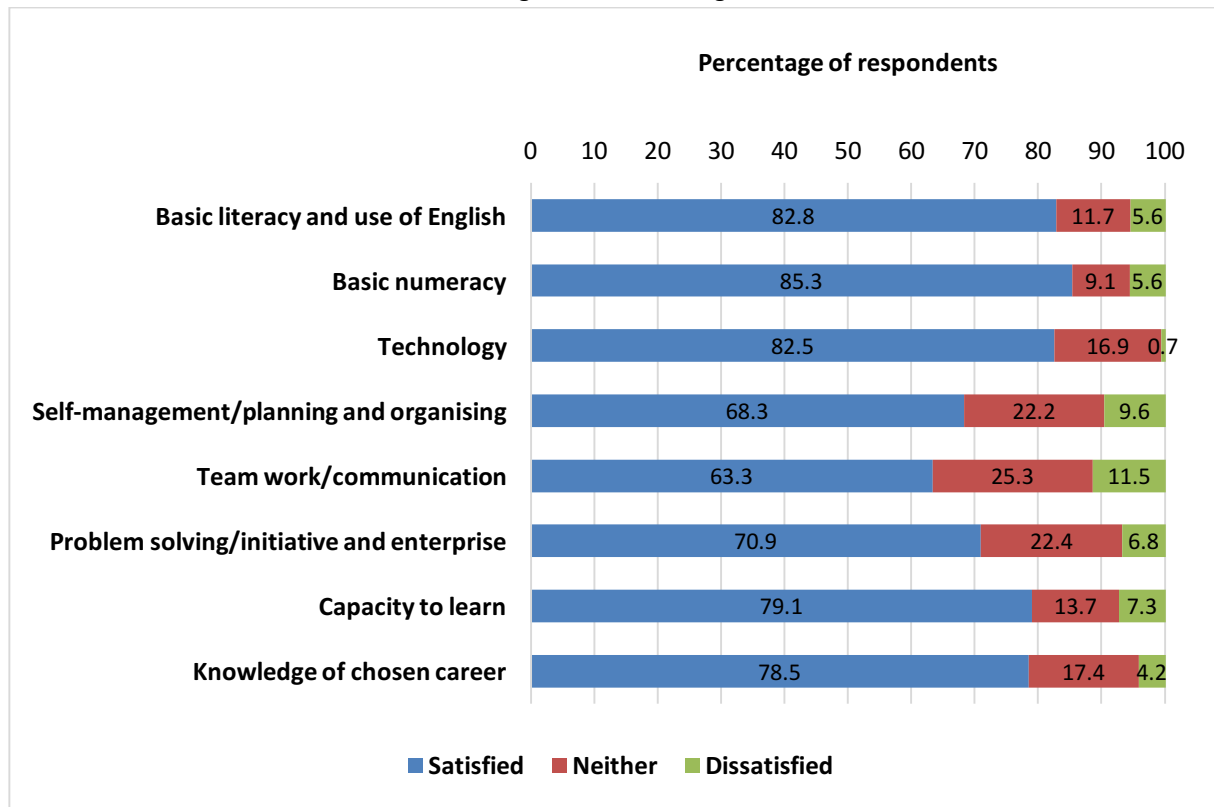
<sup>12</sup> Graduate Outlook 2014, Graduate Careers Australia, page 16.

**Table 4: Most important selection criteria when recruiting graduates 2014 (%)**

Selection Criteria	2014	Selection Criteria	2014
Communication skills	48.6%	Relevant qualifications	14.0%
Academic results	24.3%	Willingness to learn	12.1%
Teamwork skills	22.4%	Problem solving skills	11.2%
Aptitude	21.5%	Passion	10.3%
Interpersonal skills	20.6%	Customer service	8.4%
Leadership skills	19.6%	Analytical skills	6.5%
Work experience	19.6%	Technical skills	6.5%
Cultural fit	18.7%	Integrity	3.7%
Motivational fit	17.8%	Organised	3.7%
Adaptable	14.0%	Extra-curricular activities	3.7%

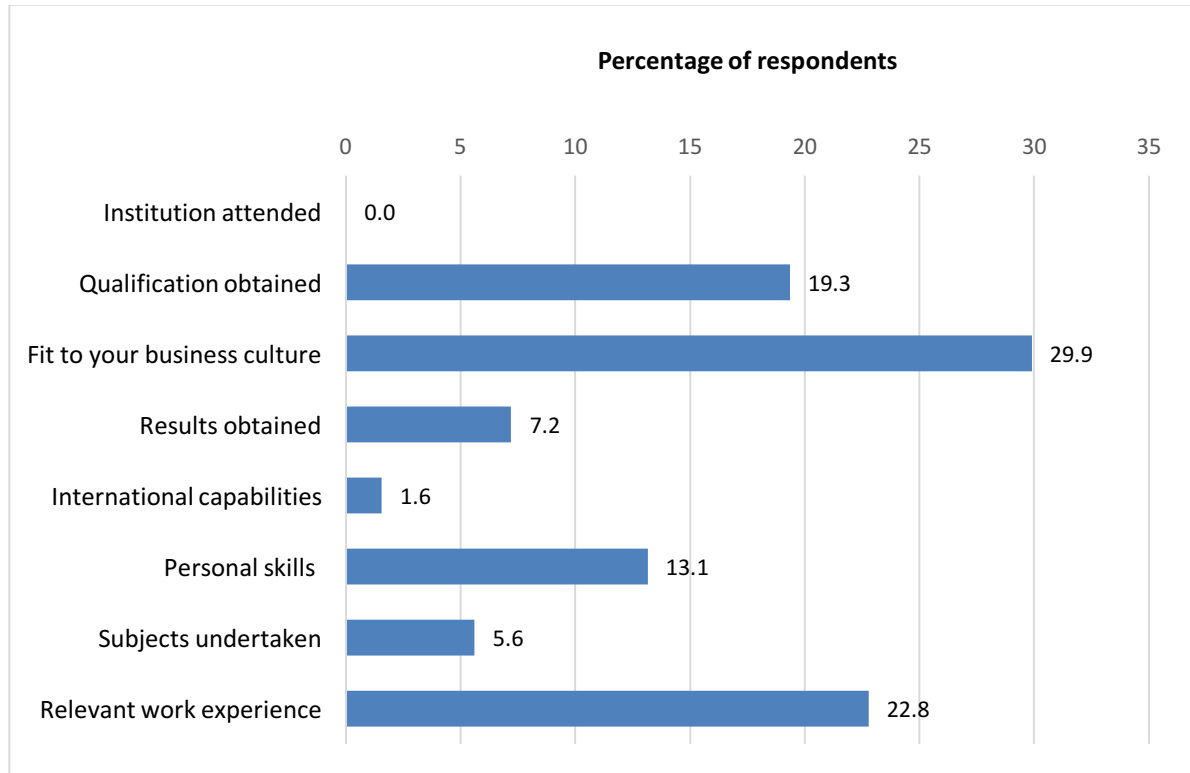
Employers were asked to provide their levels of satisfaction and dissatisfaction with higher education graduates. In comparison to the results for 2014 there has been an increase in satisfaction by employers across all categories. In relation to areas of dissatisfaction Teamwork and Communication (11.5 per cent), Self-Management (9.6 per cent) and Capacity to Learn (7.3 per cent) were among the highest ranked areas by employers.

**Chart 22: Areas of dissatisfaction with higher education graduates**



In addition to factors influencing the employment of higher education graduates, employers were also asked about graduates from the VET sector.

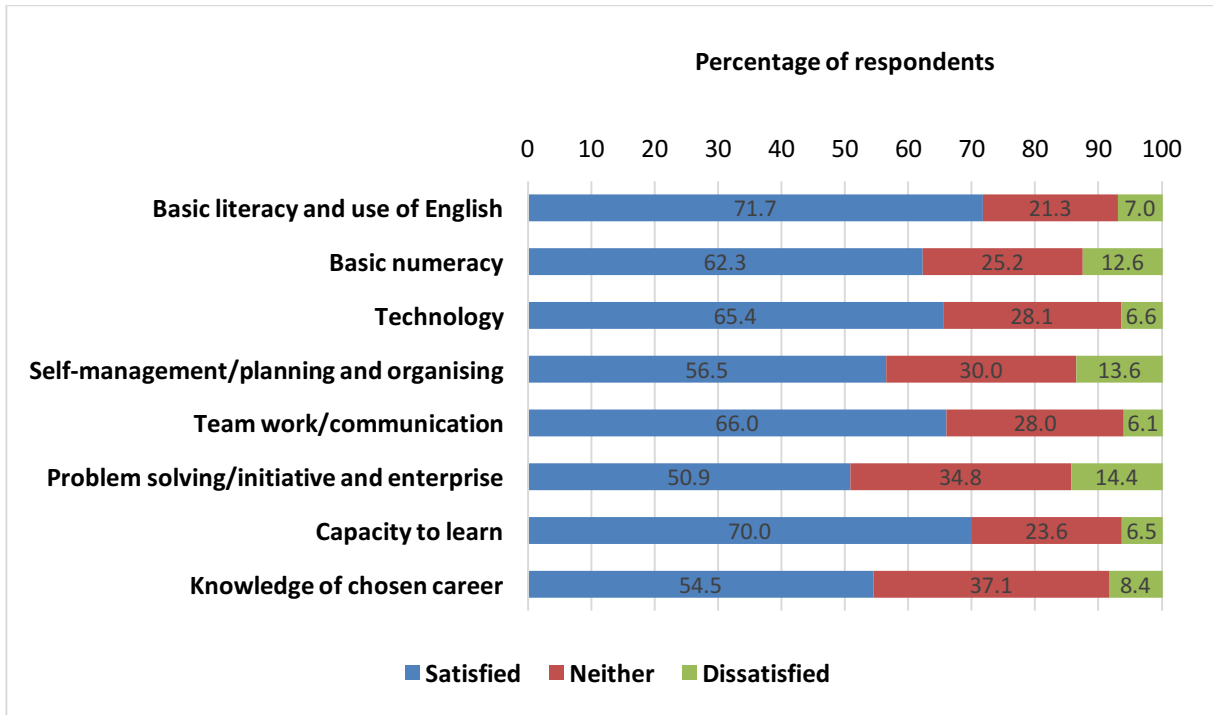
**Chart 23: Most important factors when recruiting vocational education and training graduates**



29.9 per cent of respondents reported that the most important factor was fitting in to business culture. 22.8 per cent ranked relevant work experience first while 19.3 per cent reported that the qualification obtained was the most important.

The interesting conclusion to be drawn from this data is the similarity of the responses about both VET and Higher Education graduates. The same three factors were the most important and all had a similar quantum. This suggests that the origin of the graduates is not a major consideration for employers when recruiting.

**Chart 24: Levels of satisfaction with vocational education and training graduates**

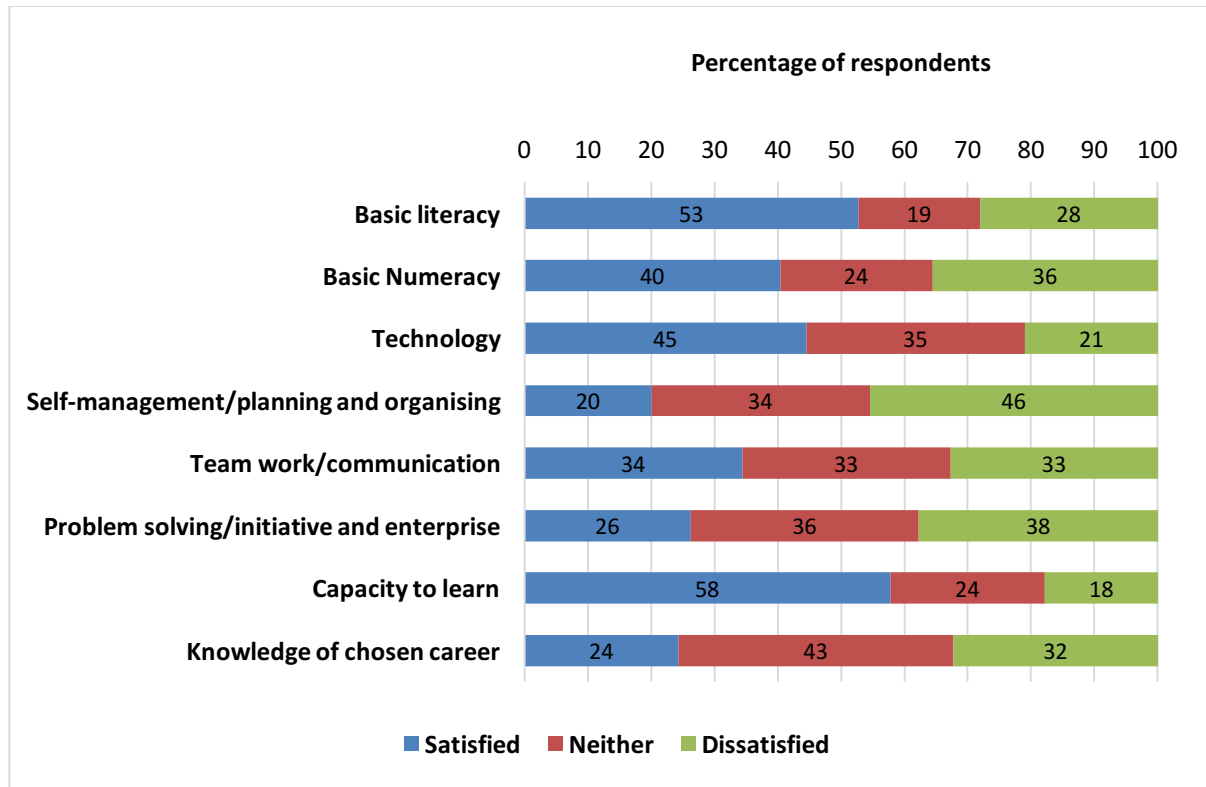


Employers were asked how satisfied they are with the graduates of vocational education and training system are equipped with the following skills. The largest areas of dissatisfaction are: problem solving, initiative and enterprise (14.4 per cent); self-management, planning and organising (13.6 per cent); and basic numeracy (12.6 per cent).

So there are some significant differences in satisfaction levels for employers between Higher Education and VET graduates. The highest level of dissatisfaction about Higher Education graduates was team work and communication (11.5 per cent) whereas this was only 6.1 per cent for VET graduates. The highest level of dissatisfaction about VET graduates was problem-solving, initiative and enterprise (14.4 per cent) but this was only 6.8 per cent for Higher Education graduates. Basic numeracy rated high in dissatisfaction for VET graduates (12.6 per cent) but was of less a concern about Higher Education graduates (5.7 per cent).

Dissatisfaction about self-management, planning and organising was a more significant concern about VET graduates (13.6 per cent) than for Higher Education graduates (9.6 per cent).

**Chart 25: Levels of satisfaction with school leavers**



Employers were asked how satisfied they are with the skills of school leavers. The levels of dissatisfaction are much higher across a wider range of skills compared to the Higher Education and VET sectors. The highest areas of dissatisfaction were reported for self-management, planning and organising (46 per cent); problem solving, initiative and enterprise (38 per cent) and team work and communication (33 per cent). In addition to the concerns about the range of employability skills, the level of dissatisfaction is high with both basic numeracy (36 per cent) and basic literacy and the use of English (28 per cent).

These results remain quite similar to those from the 2014 survey with the highest areas of satisfaction and dissatisfaction all coming from the same three categories.

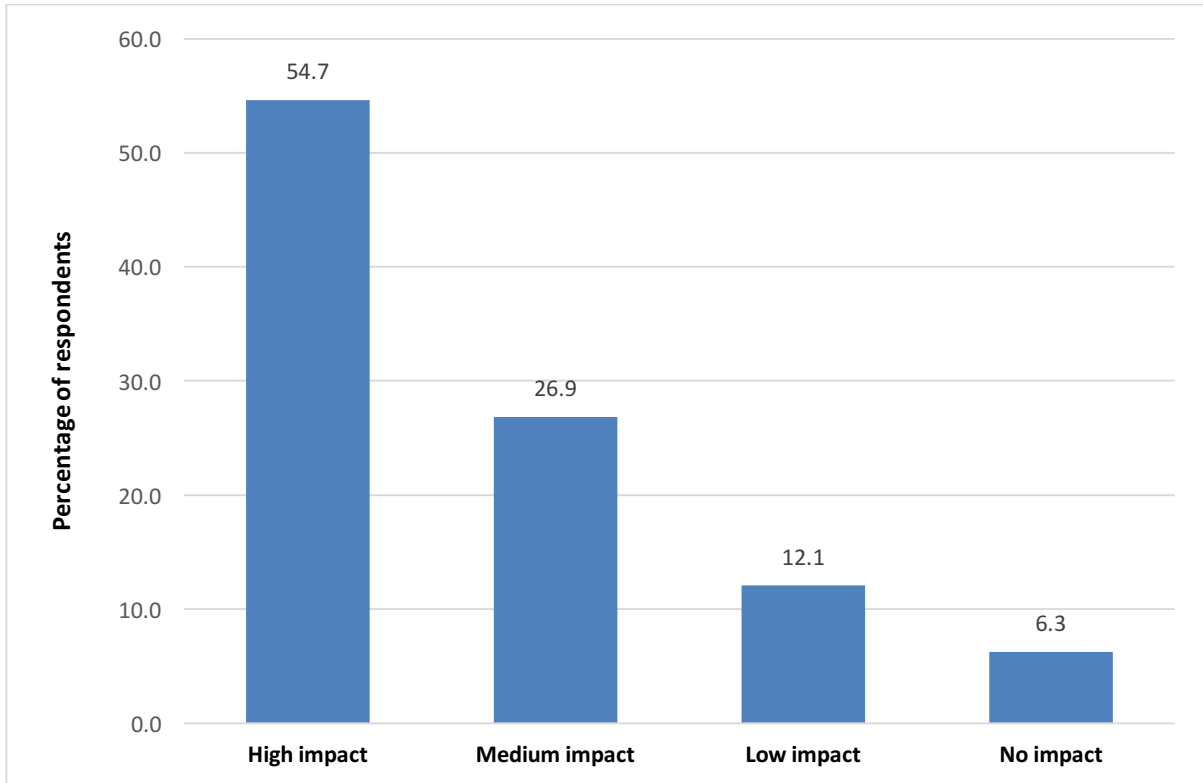
**4.5 Leadership and Management Skills**

A key dimension of workplace skills is leadership and management. Employers were asked to address a range of issues related to these. Initially, the level of impact of leadership and management skills on an organisation was considered.

Over half of the responses (54.7 per cent) indicated that there was a high impact on business of a lack of leadership and management. Only 6.3 per cent of employers thought that there was no impact on a business of a lack of leadership and management.

The Study of Australian Leadership reported that there is a link between leadership and organisational outcomes and employee outcomes. In terms of organisation outcomes, leadership is linked to productivity, innovation, customer satisfaction, quality and financial performance.<sup>13</sup>

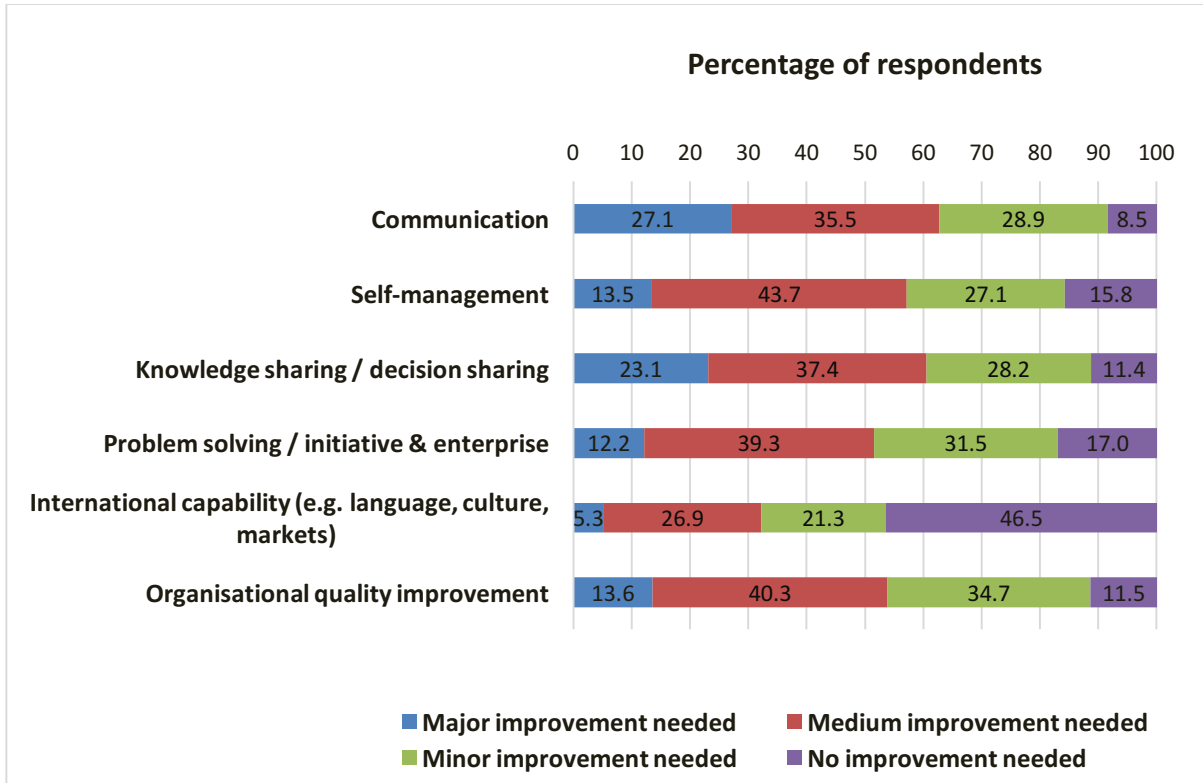
**Chart 26: Levels of impact lack of leadership and management has on business**



A further consideration was what kind of improvements to these skills are required. The areas identified for major improvement included communication (27.1 per cent), knowledge and decision sharing (23.1 per cent), self-management (13.5 per cent), organisational quality improvement (13.6 per cent) and problem-solving, initiative and enterprise (12.2 per cent). When the need for medium improvement is included all of these areas are considered to be an issue by over half of the respondents with communication (62.6 per cent) remaining the most identified area for improvement.

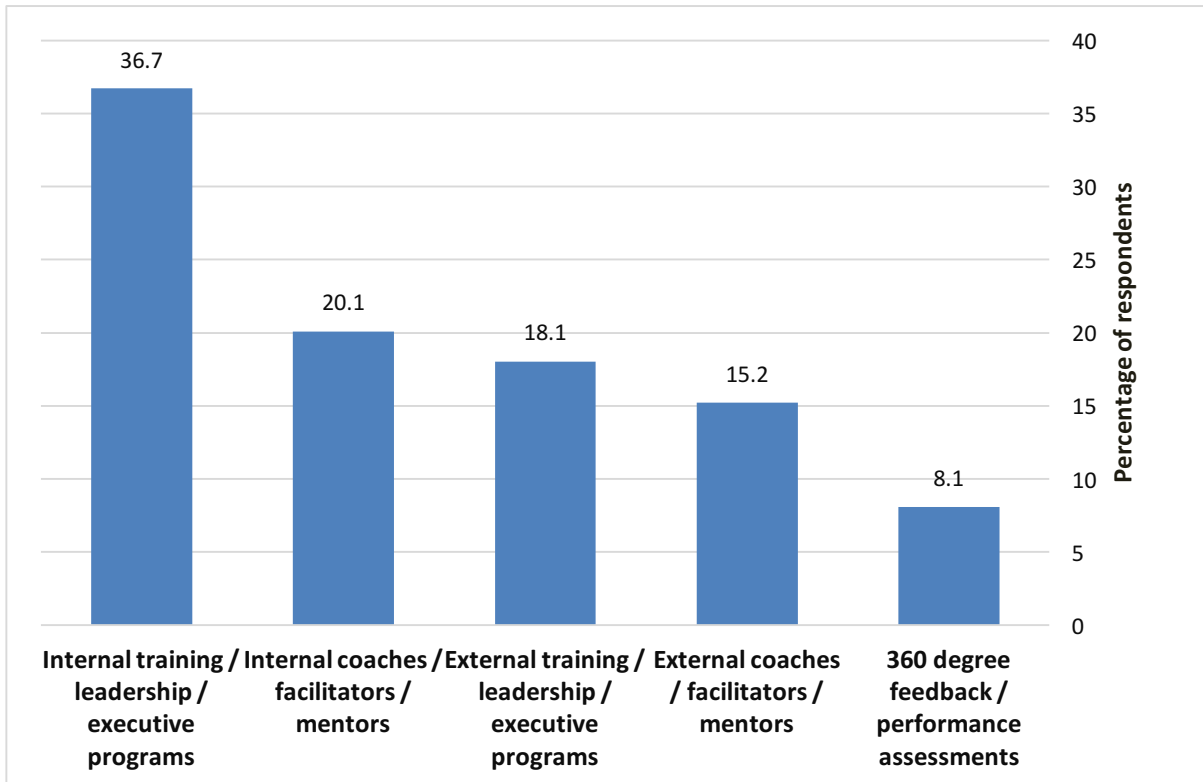
<sup>13</sup> Leadership at Work, Study of Australian Leadership, Centre for Workplace Leadership, page 15.

**Chart 27: Areas in which improvements to leadership and management skills are needed**



Employers were asked to nominate management and leadership initiatives being undertaken to improve leadership and management skills in their organisation.

**Chart 28: Leadership initiatives to improve leadership and management skills**



The most common response to this was participation in internal training and executive leadership programs (36.7 per cent). Other sizable responses included the use of internal coaches, facilitators and mentors (20.1 per cent) and external training and executive leadership programs (18.1 per cent).

**Chart 29: Leadership development in Australian workplaces**

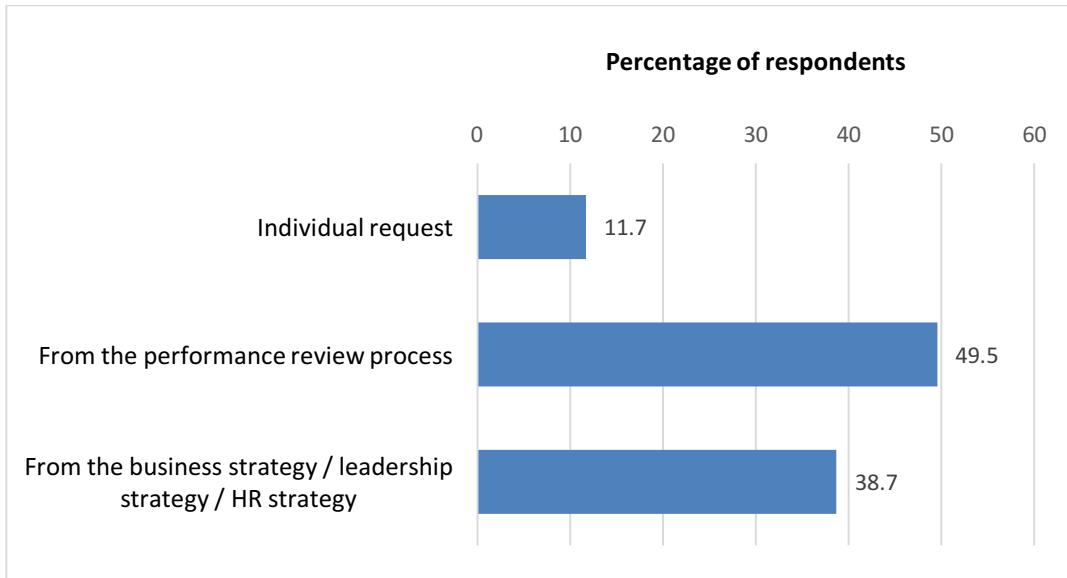
In the major Study of Australian Leadership<sup>14</sup> a number of development practices were reported. The most common leadership development activities were leadership workshops (59.7 per cent) and mentoring programs (59.4 per cent). These are similar to the main responses in the Ai Group survey.



<sup>14</sup> Leadership at Work, Study of Australian Leadership, Centre for Workplace Leadership, page 96.

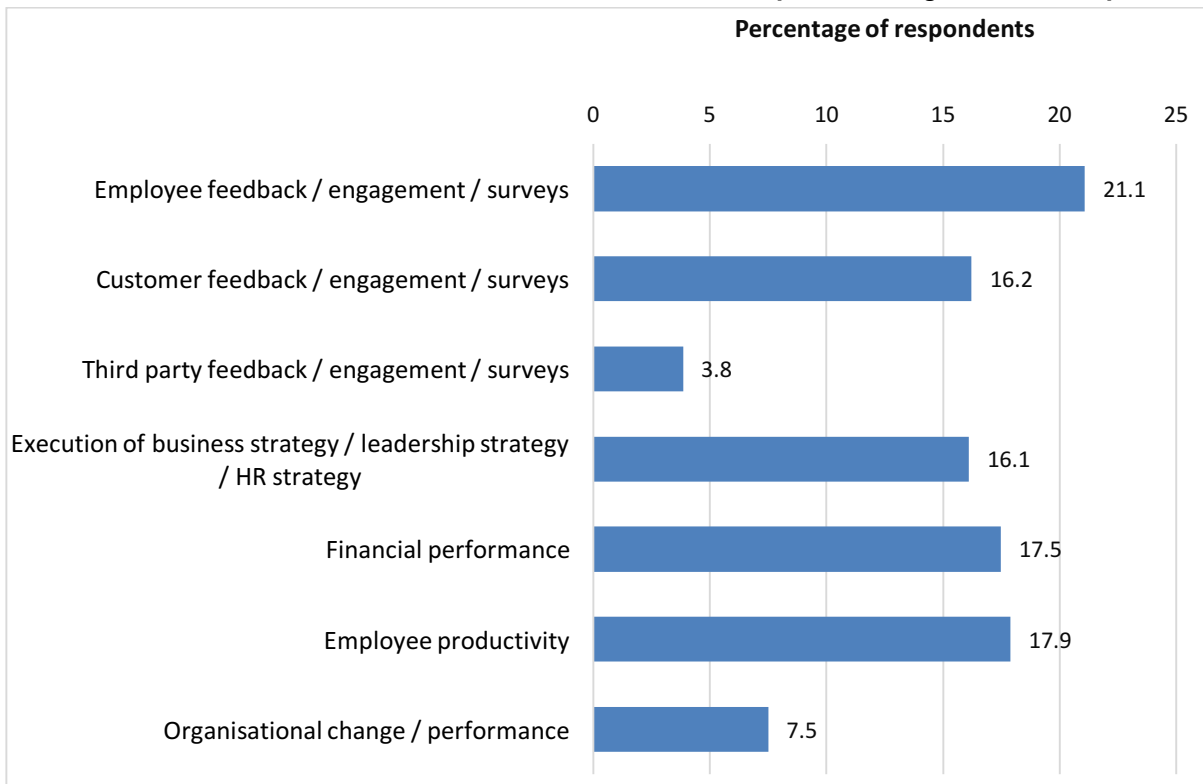


**Chart 30: Meeting management and leadership development needs**



Consideration was given to how management and leadership development needs were most commonly identified. Two main sources emerged from the responses: through the performance review process (49.5 per cent) and from the internal company strategies (38.7 per cent).

**Chart 31: Measures used to determine the benefit of leadership and management development**



It is important to measure the benefits of leadership and management development. Employers were asked what measures were used to determine the return on investment and benefits of the

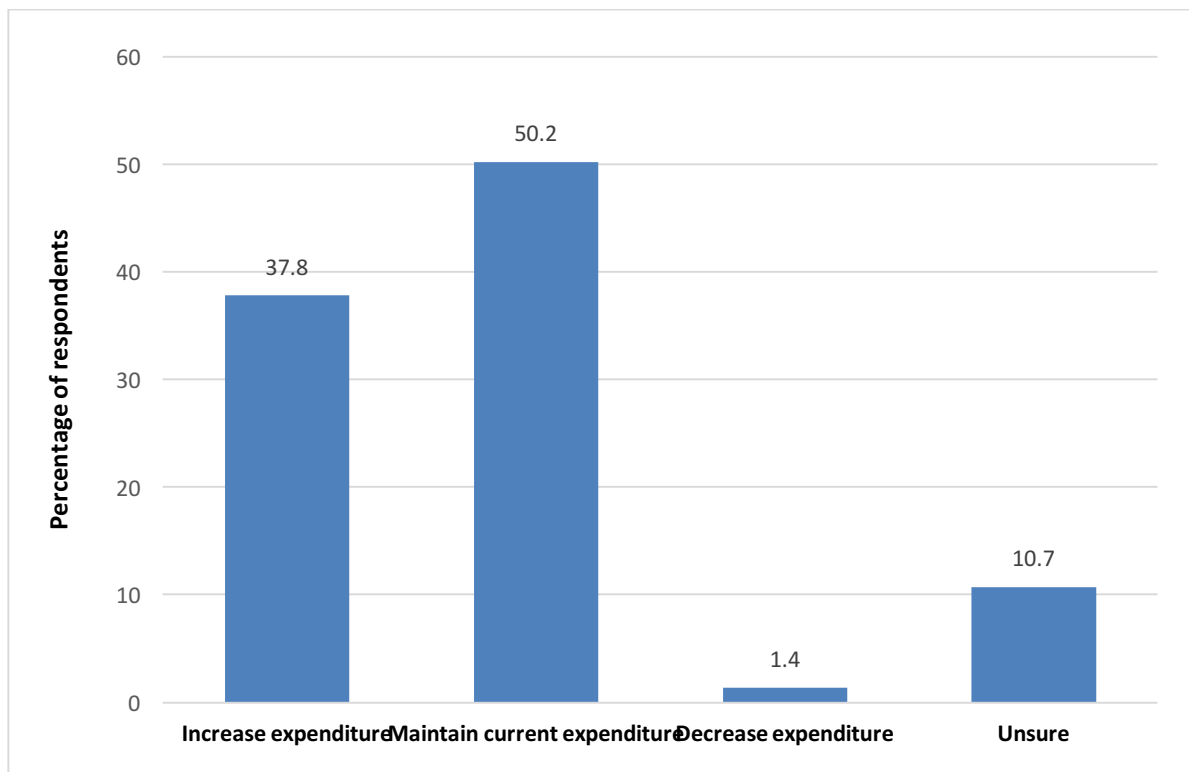
development of leadership and management. A number of measures were suggested and the leading response was employee feedback through various forms (21.1 per cent). Other measures were more evenly spread and included employee productivity (17.9 per cent), financial performance (17.5 per cent), customer feedback (16.2 per cent) and the execution or implementation of internal company strategies (16.1 per cent).

## Section 5: Company Skill Strategies and Practices

### 5.1 Training Expenditure

The Workforce Development Needs Survey had a significant focus on company skills strategies and practices. An important dimension of this is expenditure on employee training and development. Employers were asked about their training expenditure intentions for the coming year.

**Chart 32: Intentions for training and development expenditure over the next 12 months**



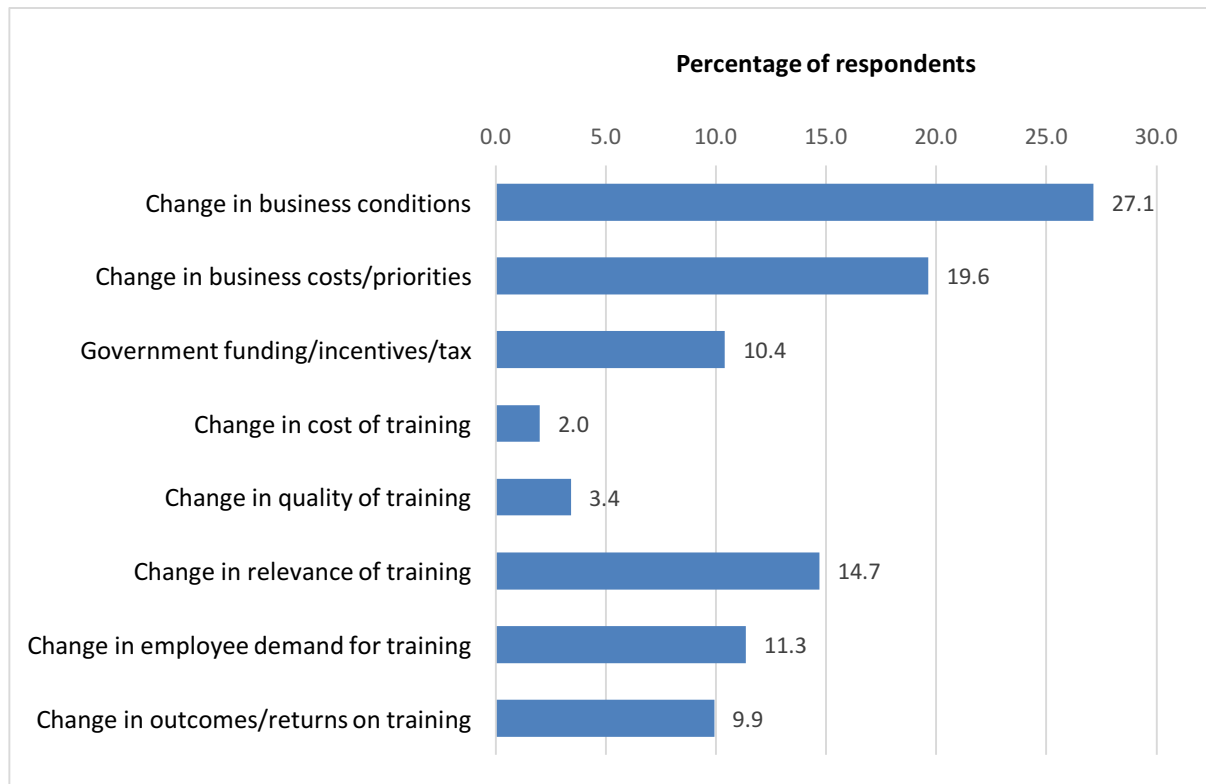
Overall there was a positive response with over half of the respondents (50.2 per cent) reporting that they would maintain their current expenditure and 37.8 per cent intend to increase their expenditure. Only 1.4 per cent indicated that they would decrease their expenditure in the coming year.

So what are the reasons for these training expenditure intentions?

Over a quarter of the respondents (27.1 per cent) have stated that a change in business conditions is the main reason for changing their training expenditure. 19.6 per cent intend to change their expenditure due to a change in business costs/priorities and 14.7 per cent due to a change in the relevance of training.

Other factors connected to the nature of training are of concern. Government funding and incentives was reported as an issue by 10.4 per cent of employers and a perceived change in the outcomes and return on training was cited by 9.9 per cent of employers as an issue. Issues of training cost (3.4 per cent) and training quality (2 per cent) were reported by relatively few employers.

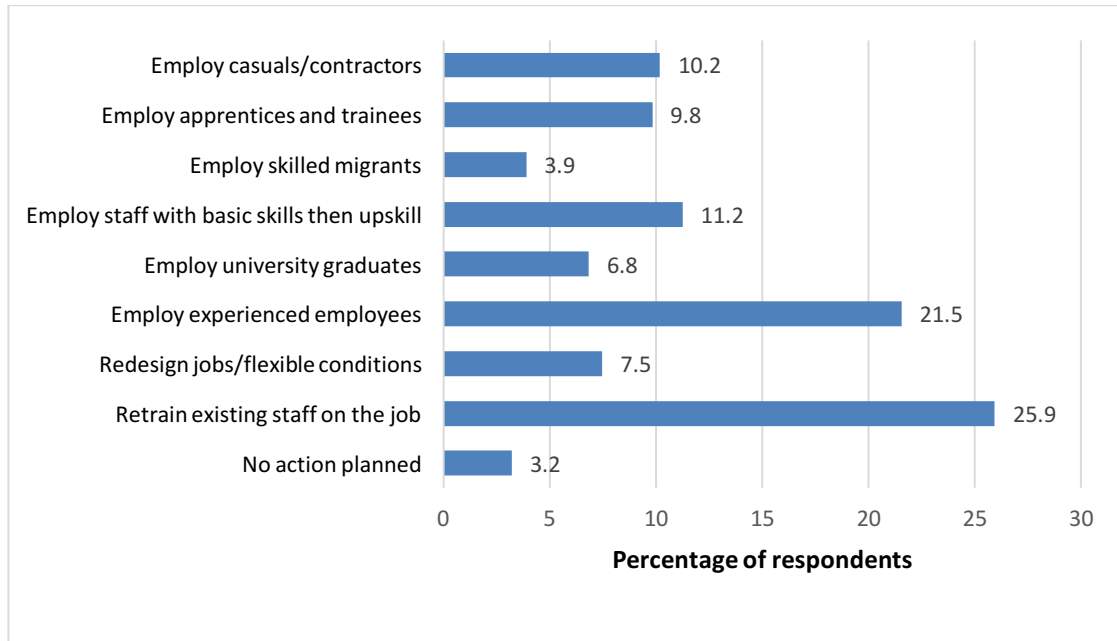
**Chart 33: Reasons for changing training expenditure**



**5.2 Meeting Skills Needs**

In addition to consideration of training expenditure employers were asked about intentions to meet skill needs over the next 12 months.

**Chart 34: How businesses intend to meet skill needs**



Over a quarter of the respondents (25.9 per cent) intend to retrain existing staff on the job while 21.5 per cent intend to employ experienced employees. These are the two largest responses which indicates a focus on skilling the existing workforce and employing experienced workers. The third largest response was employing staff with basic skills and then upskilling (11.2 per cent). This is consistent with the two largest responses. In a related area the NCVET has reported on strategies used by employers to deal with a lack of proficiency of employees. The same strategies of training existing staff (86 per cent) and recruiting new staff (59.2 per cent) were also prominent.<sup>15</sup>

**Table 5: Strategies used by organisations to cope with lack of employee proficiency 2013 and 2015 (%)**

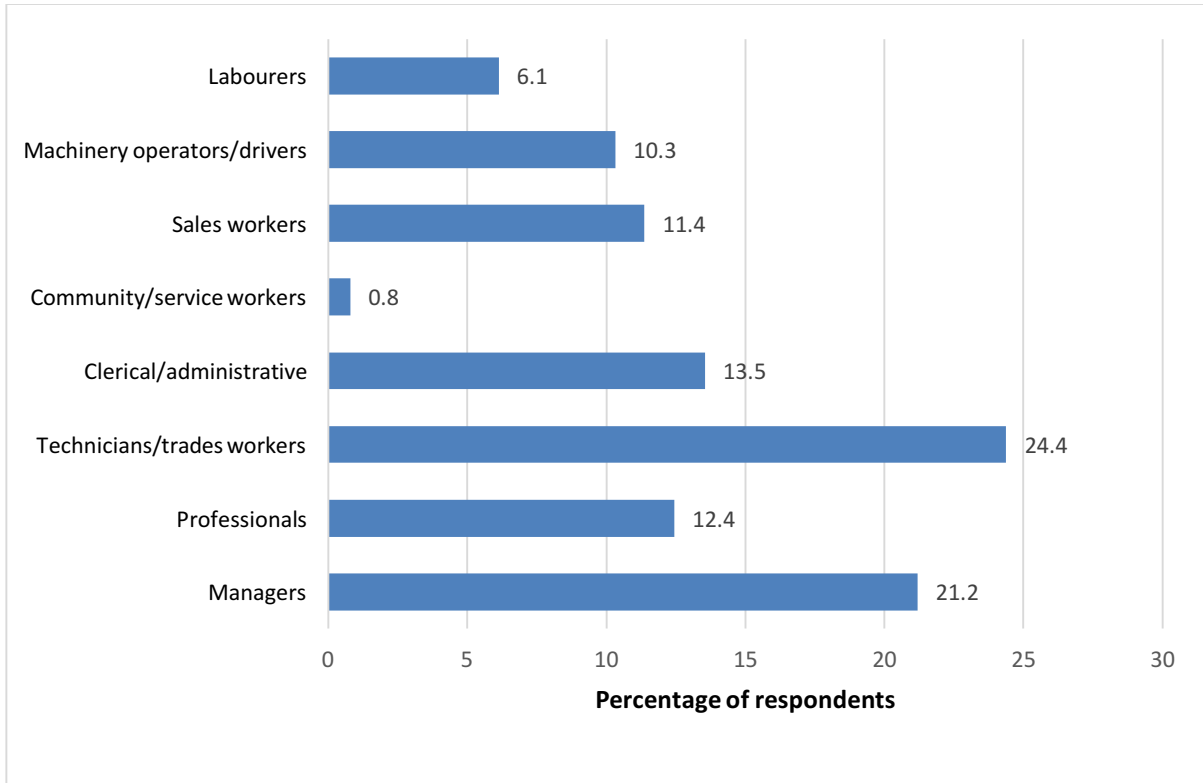
**Table 7 Strategies used by the organisation to cope with lack of proficiency of employees, 2013 and 2015 (% of employers with employees not fully proficient at their job and where this is impacting on how the organisation performs)**

	2013	2015
Internal reorganisation	50.3	57.2
Recruitment of new staff	46.9	59.2
Trained existing staff	81.4	86.0
Taken other action	22.7	32.2
None of these	6.7	4.8

While acknowledging that all businesses are not necessarily requiring apprentices or trainees as a part of their workforce, the response to this was relatively low (9.8 per cent). This again confirms the current turning away from apprentices and trainees as part of the workforce training solution.

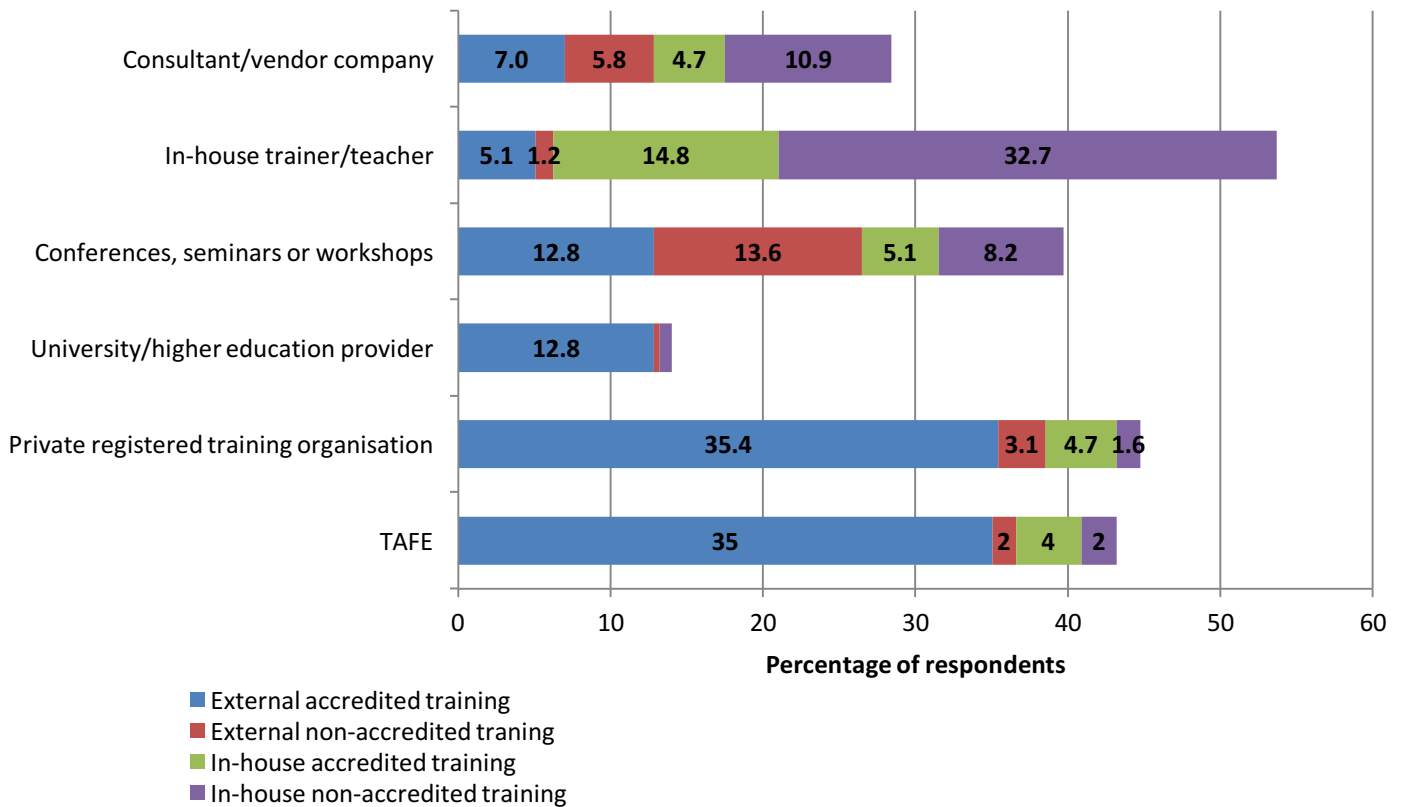
<sup>15</sup> Employers’ use and views of the VET system, 2015, NCVET, Commonwealth of Australia, 2015, Table 7, page 9.

**Chart 35: Priorities for training and development**



According to respondents, technicians and trade workers are the largest occupation priority for training and development (24.4 per cent) while managers (21.2 per cent) were also ranked with high importance. This result reflects the continuing importance of technicians and trade workers as an occupation group within the economy.

**Chart 36: Types of training and providers utilised**



There is a complex set of training arrangements and providers used by employers. In terms of external accredited training employers equally utilise private Registered Training Organisations (35.4 per cent) and TAFE (35 per cent). These are the largest responses for all types of training. Other external accredited training types are of less utilisation including higher education providers (12.8 per cent), conferences/seminars/workshops (12.8 per cent), consultant or vendor training (7 per cent) and the use of in-house trainers (5.1 per cent).

The NCVET also collects data concerning the type of providers used for training.<sup>16</sup> In relation to apprentices and trainees TAFE is by far the largest provider (68.4 per cent) used in 2015. In relation to nationally recognised training it is private training providers that are more favoured (56.3 per cent) compared to TAFE (27.2 per cent) in 2015.

The situation is different for non-accredited training, where in the main, external training providers are not used (58.4 per cent) in 2015.

<sup>16</sup> Employers’ use and views of the VET system, 2015, NCVET, Commonwealth of Australia, 2015, Table 14, page 15.

**Table 6: Type of provider and main provider used for training in the last 12 months by type of training provider, 2013 and 2015 (%)**

**Table 14 Type of provider and main provider used for training in the last 12 months by type of training and provider, 2013 and 2015 (%)**

Type of training provider	All types of providers used		Main provider used	
	2013	2015	2013	2015
<b>Apprentices and trainees</b> (Base: all employers with apprentices/trainees)				
TAFE	64.2	68.4	60.2	66.2
Private training provider	26.9	22.4	24.4	18.8
Professional or industry association	10.1	10.9	7.1	8.8
Other providers <sup>3</sup>	6.0	5.4	4.2	4.4
No external training provider used	5.1	1.8*	4.1	1.8*
<b>Nationally recognised training<sup>1</sup></b> (Base: all employers using nationally recognised training)				
TAFE	20.1	27.2	16.7	18.0
University	7.0	5.1*	5.3	3.5*
Private training provider	49.5	56.3	45.3	52.6
Professional or industry association	25.7	23.3	22.7	21.1
Other providers <sup>4</sup>	8.0	2.7*	6.3	1.7*
No external training provider used	3.6	3.3*	3.7	3.1*
<b>Unaccredited training</b> (Base: all employers using unaccredited training)				
TAFE	1.4*	2.4*	0.5*	1.7*
Private training provider	17.1	18.0	15.4	15.7
Professional or industry association	13.4	15.0	12.3	14.1
Supplier/manufacturer of equipment and/or product	13.5	9.9	12.5	8.0
Other providers <sup>5</sup>	3.3	2.9	2.7	1.7
No external training provider used	56.2	58.4	56.5	58.7

In the Ai Group survey all forms of external non-accredited training are small with the exception of conferences/workshops/seminars favoured by 13.6 per cent of employers. Similarly, in-house accredited training is also relatively small with the exception of the use of in-house trainers by 14.8 per cent of employers. This category is significant for in-house non-accredited training (32.7 per cent), the third highest response overall. Taken together, in-house accredited and non-accredited training is the most favoured training response by employers (47.5 per cent).

This is consistent with data provided by the NCVET. Employers using unaccredited training has been relatively high over the last decade and has rivalled the level of employers using the VET system. Employers using informal training rates the highest throughout this period.<sup>17</sup> Overall this suggests that employers favour in-house training and that their connection with the formal accredited training market is only partial.

**Table 7: Employer training choices 2005 – 2015 (%)**

	2005	2007	2009	2011	2013	2015
<b>Training choices</b>						
Employers using the VET system (Base: all employers):	57.9	55.6	58.0	56.1	51.9	52.8
With jobs that require vocational qualifications	37.0	34.8	35.7	36.4	33.3	36.6
With apprentices and trainees	29.2	30.3	32.0	30.4	26.9	24.3
Using nationally recognised training <sup>1</sup>	24.2	23.3	27.2	23.7	20.0	20.6
Employers using unaccredited training	54.5	50.4	54.1	49.0	47.5	49.3
Employers using informal training	73.0	72.1	77.8	78.3	77.6	77.9
Employers providing no training	12.2	13.0	8.7	9.3	12.4	10.9

<sup>17</sup> Employers' use and views of the VET system, 2015, NCVET, Commonwealth of Australia, 2015, Table 1, page 8.

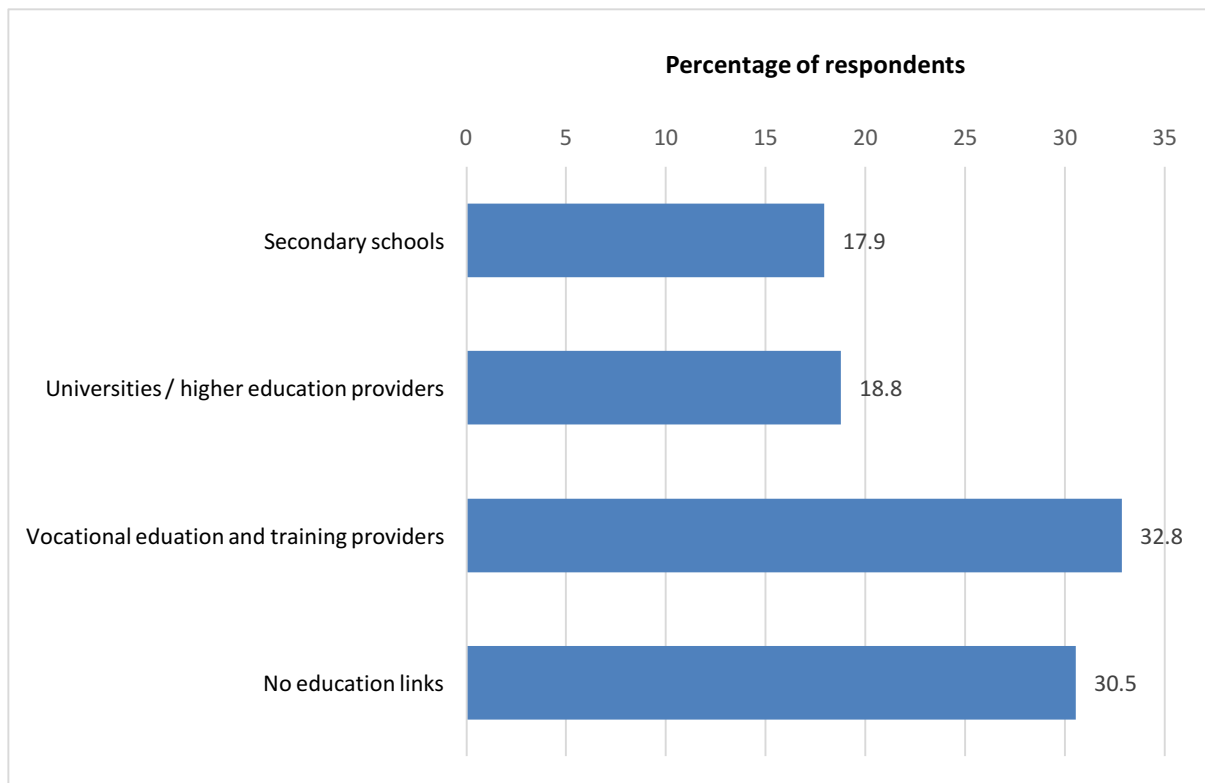


## Section 6: Links with Education Sectors

### 6.1 Existing Links with Education Sectors

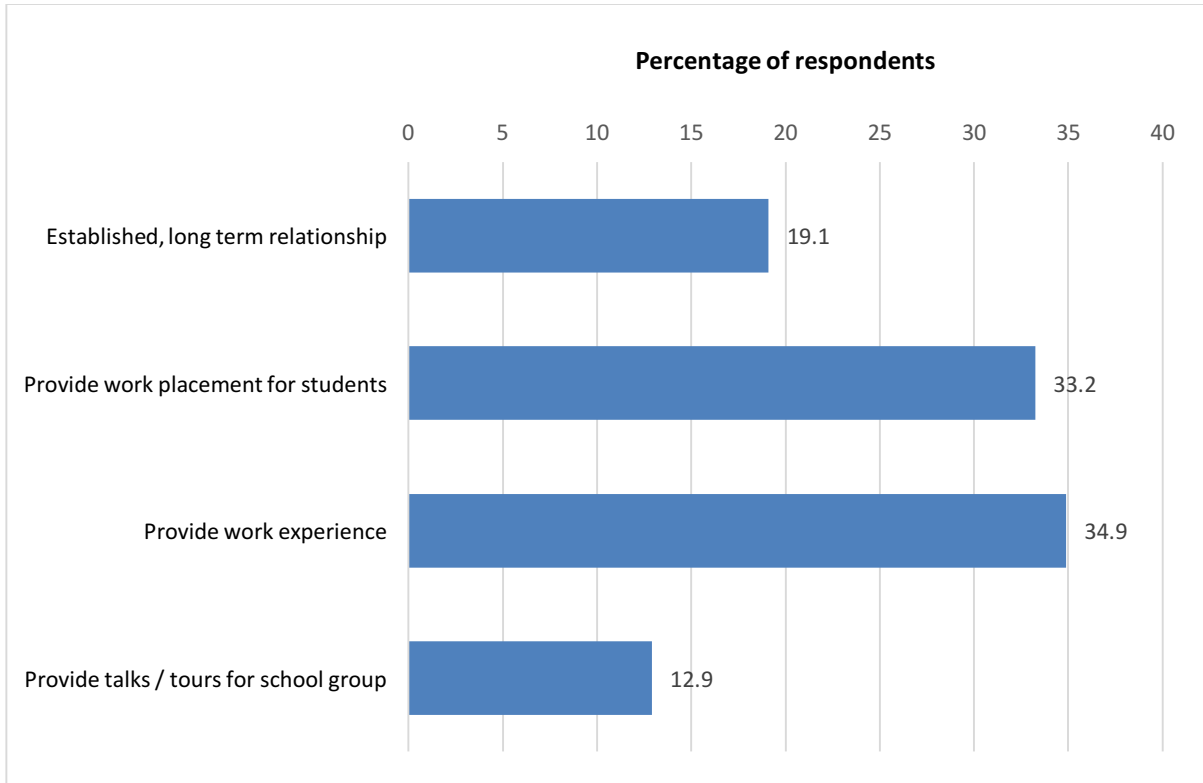
Industry links to education sectors are known to be a critical factor in industry competitiveness. Ai Group’s survey found that 32.8 per cent have links with vocational education and training providers, 18.8 per cent of respondents reported they have links with higher education providers and 17.9 per cent had links with secondary schools. Overall, 30.5 per cent of the employers responding had no links established at all with education and training providers. When comparing these results with Ai Group’s previous survey in 2014, there has been a decrease in the links developed with higher education providers (down from 26 per cent).

**Chart 37: Links with all education providers**

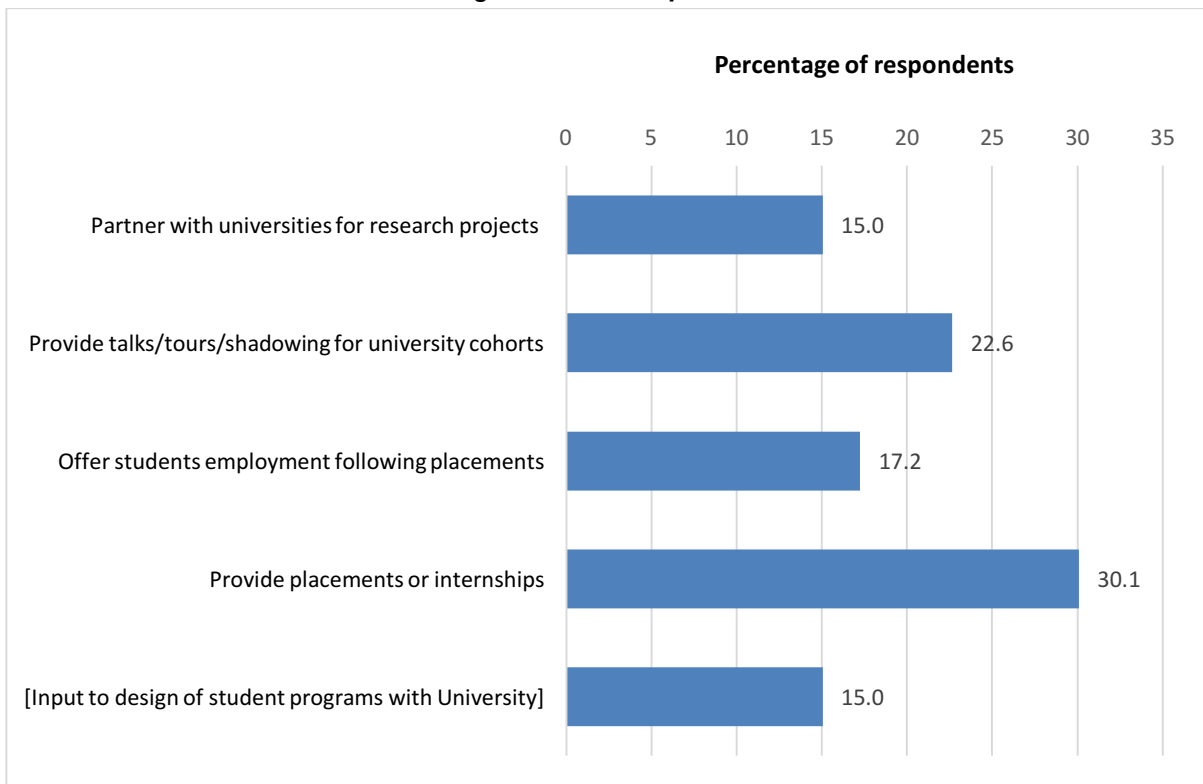


In relation to links with secondary schools, employers were asked about the nature of their involvement. The major forms of reported links were work experience (34.9 per cent) and providing work placements (33.2 per cent). Some 19.1 per cent of employers reported that they had established long term relationships with schools.

**Chart 38: Nature of links with secondary schools**



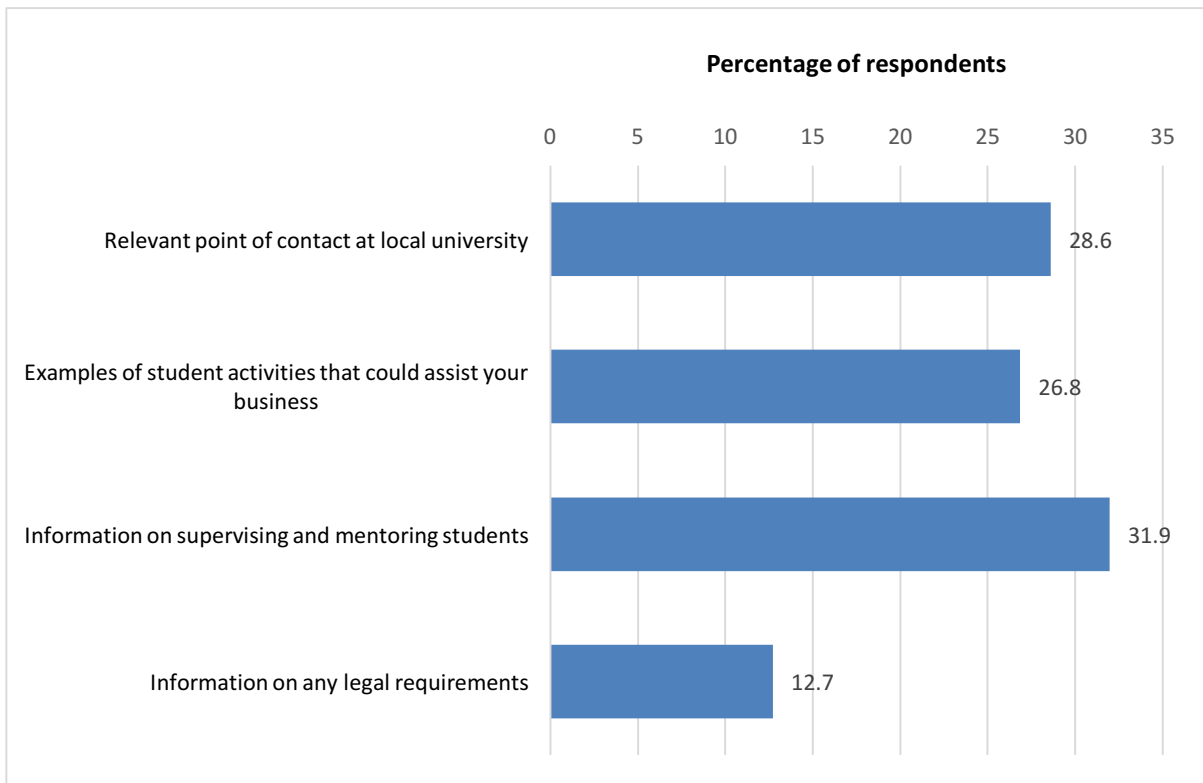
**Chart 39: Links with universities or higher education providers**



A key solution to a lack of work readiness in graduates is to expose students to the workplace and to integrate the experience with their studies. Employers were asked about the types of links they have with higher education providers and reported a range of involvements. The largest responses indicate that some 30.1 per cent of the employers provide placements or internships for students, a further 22.6 per cent provide talks, tours or shadowing for university cohorts and 17.2 per cent offer students employment at the end of their final year of study.

Employers were asked what support would allow them to involve university students in their organisation. Some 31.9 per cent of the respondents stated they need information on supervising and mentoring students; 28.6 per cent state that they need a relevant point of contact at a local university and 26.8 per cent need examples of student activities that could assist the business.

**Chart 40: Types of support needed to involve university students**



**6.2 Future Linkages with Education Sectors**

In addition to the nature of current linkages employers were asked about plans to change links over the next 12 months. It is clear from this data that employers see the value in maintaining and even increasing links with education providers from all sectors.

In terms of maintaining links employers reported they plan to do this with secondary schools (83.9 per cent), vocational education providers (82.4 per cent) and universities (73.7 per cent).

There was also a positive response to increasing and establishing new links, especially with universities (26.1 per cent), but also with vocational education providers (11.4 per cent) and secondary schools (16.4 per cent).

Chart 41: Plans to change links with education providers over the next 12 months

