

Agriculture, forestry and fishing

...covers agriculture, aquaculture, forestry and logging, fishing, hunting and trapping, and the support services associated with these activities.

This suite of Industry Snapshots complements *Future Focus*, the 2013 National Workforce Development Strategy. These snapshots provide additional information and analysis on each industry to assist stakeholders in planning for the future of their industry or sector. It should be noted that the longer term data contained in this publication is based on AWPA's four scenarios for Australia to 2025 and is not intended to be compared to other data sources or projections.

Key points

- ▶ Agriculture, forestry and fishing employs approximately 316,800 people, accounting for just under three per cent of the total Australian workforce.
- ▶ The industry provides significant employment opportunities for Australians living in regional areas, with approximately 87 per cent of jobs located outside capital cities.¹
- ▶ The industry has evolved and diversified in recent decades, with an increasing focus on sustainable and drought-resistant production systems.
- ▶ The vast majority of the industry workforce (86 per cent) is employed in small enterprises (i.e. those that employ less than 20 workers), while a further 11 per cent are employed in medium-sized enterprises (i.e. those that employ between 20 and 199 workers).
- ▶ Agriculture, forestry and fishing has the oldest age profile of all industry sectors, with more than half of all workers (56 per cent) aged 45 years or older compared with 38 per cent for all industries.
- ▶ The agriculture, forestry and fishing workforce is 70 per cent male, compared to 54 per cent for all industries.
- ▶ The majority of workers in the industry (61 per cent) do not hold a post-school qualification, while approximately one fifth (18 per cent) of workers have completed a Certificate III or IV qualification.
- ▶ A detailed employment profile for agriculture, forestry and fishing (including information on its workforce, industry and occupational characteristics) can be found at www.skillsinfo.gov.au.

Industry outlook

Agriculture, forestry and fishing is an important industry within the Australian economy owing to concerns over food security, land degradation and sustainability. In 2011–12, agriculture, forestry and fishing contributed 2.4 per cent (\$32.5b) to the Australian economy in terms of industry value added.²

¹ Regional and remote areas are defined as those outside state capital cities.

² 'Industry value added' is the measure of the contribution by industry to gross domestic product (GDP) at basic prices. ABS (2012) *Australian System of National Accounts 2011-12*, cat. no. 5204.0, Table 11.

Short-term growth

Employment in agriculture, forestry and fishing has contracted over the past five years at a rate of approximately 2 per cent per annum. This decline has been most pronounced in the smaller sub-sectors within the industry, including Aquaculture; Forestry and Logging; Fishing, Hunting and Trapping; and Agriculture, Forestry and Fishing Support Services.

Table 1 Current and past employment in agriculture, forestry and fishing

Industry	Current employment		Past growth: five years	
	'000	% of total	'000	%
Agriculture, Forestry and Fishing	316.8	2.7	-35.1	-10.0
Agriculture	274.2	2.4	-26.5	-8.8
Aquaculture	2.8	0.0	-0.9	-24.3
Forestry and Logging	7.0	0.1	-1.9	-20.9
Fishing, Hunting and Trapping	6.7	0.1	-4.0	-37.2
Agriculture, Forestry and Fishing Support Services	25.9	0.2	-3.8	-12.8
All industries	11,588.7	100.0	798.1	7.4

Note: Data for industry subsectors may not sum to the industry total because data for each subsector have been separately seasonally adjusted and trended and at the higher levels include 'not further defined' categories.
Source: ABS (2013) *Labour Force Australia*, February, cat. no. 6291.0.55.003 (DEEWR trend).

Long-term growth

Australia needs to position itself in a world where work is changing rapidly. Technological innovation, globalisation, the Asian century and new patterns of work are impacting on the demand for skills and the speed of change is making it hard to predict and plan for the future.

To deal with this uncertainty, the Australia Workforce and Productivity Agency (AWPA) has adopted a scenario planning approach to help us overcome these limitations in making projections about the future. Scenarios are alternative visions of potential futures, and provide a means to make decisions that take account of uncertainty.

AWPA developed four possible, plausible scenarios for Australia to 2025.

- ▶ In the **Long Boom** scenario, the high demand for resources traded with China and other countries continues. Industries challenged by the high terms of trade undertake structural adjustment. This results in a scenario of sustained prosperity and a restructured economy.
- ▶ In **Smart Recovery**, the challenges facing Europe and the United States affect financial markets. This means low growth for Australia to 2014–15. Growth then improves and Australia benefits from industry and government strategies to implement a knowledge economy.
- ▶ In **Terms of Trade Shock**, resource prices fall mainly due to increased supply from other countries, the Australian dollar falls and we move to a broader-based economy.
- ▶ **Ring of Fire** is a risky world with multiple economic and environmental shocks resulting in ongoing lower growth.

Economic modelling against each of these four scenarios was undertaken by Deloitte Access Economics (DAE) to determine the skills demand for the economy into the future.³

As Table 2 shows, Forestry and Logging is expected to have high employment growth under all four scenarios to 2025, while employment growth in Agriculture, Forestry and Fishing Support Services is also anticipated to exceed the all industry average to 2025 in all scenarios except Ring of Fire.

Table 2 Average annual industry employment growth in four scenarios, 2011–18 and 2011–25 (%pa)

Industry	Long Boom		Smart Recovery		Terms of Trade Shock		Ring of Fire	
	2018	2025	2018	2025	2018	2025	2018	2025
Agriculture, Forestry and Fishing	1.0	0.4	0.0	-0.4	-0.1	-0.4	-1.2	-1.6
Agriculture	0.5	0.2	-0.4	-0.6	-0.5	-0.6	-1.6	-1.8
Aquaculture	0.7	1.0	-0.2	0.3	-0.3	0.3	-1.4	-0.9
Forestry and Logging	8.8	2.9	7.8	2.1	7.7	2.1	6.5	0.8
Fishing, Hunting and Trapping	-4.5	-3.5	-5.4	-4.2	-5.5	-4.2	-6.5	-5.4
Agriculture, Forestry and Fishing Support Services	4.9	2.6	3.9	1.8	3.9	1.8	2.7	0.5
All industries	2.1	2.0	1.5	1.5	1.7	1.6	0.8	0.7

Source: Deloitte Access Economics (2012) *Economic modelling of skills demand and supply*, Scenario output—detailed employment results.

Occupation outlook

Key occupations

The top ten occupations in agriculture, forestry and fishing account for more than three-quarters of total employment in the industry. The industry workforce is primarily comprised of farmers and farm workers, but also includes small numbers of farm managers, machinery operators and drivers (such as Agricultural, Forestry and Horticultural Plant Operators) and labourers (such as Packers).

³ A description of the scenarios and the Deloitte Access Economics modeling of employment in each, with state and territory breakdowns, is available at the AWPA website www.awpa.gov.au.

Table 3 Top ten agriculture, forestry and fishing occupations

Occupation		People employed	Industry employment
		'000	% of total
1213	Livestock Farmers	80.6	24.2
1212	Crop Farmers	44.6	13.4
1214	Mixed Crop and Livestock Farmers	33.4	10.0
8415	Livestock Farm Workers	26.1	7.8
8412	Crop Farm Workers	21.1	6.3
7211	Agricultural, Forestry and Horticultural Plant Operators	14.1	4.2
1210	Farmers and Farm Managers nfd ^(a)	13.6	4.1
5512	Bookkeepers	9.3	2.8
8414	Garden and Nursery Labourers	4.5	1.3
8321	Packers	4.4	1.3
8410	Farm, Forestry and Garden Workers nfd ^(a)	4.2	1.3
8992	Deck and Fishing Hands	4.0	1.2
Total agriculture, forestry and fishing		333.1	78.0

Note: (a) 1210 Farmers and Farm Managers nfd and Farm, Forestry and Garden Workers nfd refer to occupations at the three-digit ANZSCO level which cannot be further defined at the four-digit level. As data is not available for these occupational groups at the required level of detail, they have been omitted from Tables 4–7.

Source: ABS (2013) *Labour Force Australia*, detailed quarterly report, 2012 average of four quarters, cat. no. 6291.0.55.003.

Short-term growth

Table 4 shows current employment and past growth for the occupations that feature prominently within the industry. **Note that the figures refer to the expected number of people in these occupations across all industries, not just in agriculture, forestry and fishing.**

Table 4 Current and past employment in key occupations

Occupation		Current employment (all industries)		Past growth: five years	
		'000	% of total	'000	%
1213	Livestock Farmers	73.6	0.7	-24.1	-24.6
1212	Crop Farmers	46.3	0.4	-4.6	-9.1
1214	Mixed Crop and Livestock Farmers	27.9	0.2	-10.6	-27.5
8415	Livestock Farm Workers	26.1	0.2	-3.3	-11.1
8412	Crop Farm Workers	23.7	0.2	-1.7	-6.7
7211	Agricultural, Forestry and Horticultural Plant Operators	16.2	0.1	-0.7	-4.1
5512	Bookkeepers	114.8	1.0	-13.2	-10.3
8414	Garden and Nursery Labourers	32.0	0.3	0.2	0.5
8321	Packers	63.8	0.6	-5.4	-7.8
8992	Deck and Fishing Hands	7.7	0.1	-2.7	-26.1
All employed		11,588.7	100.0	798.1	7.4

Source: ABS (2013) *Labour Force Australia*, February, cat. no. 6291.0.55.003 (DEEWR trend).

Employment among key agriculture, forestry and fishing manual occupations has declined markedly over the past five years. The drop in employment is particularly pronounced among Livestock Farmers and Mixed Crop and Livestock Farmers. This is due in part to factors such as the steady decline in beef cattle prices, the rising price of feed grain and the strong Australian dollar, which has impacted negatively on international trading conditions. Manual occupations, such as Agricultural, Forestry and Horticultural Plant Operators and Packers, have also seen a decline in employment over the past five years in line with changing technologies and structural adjustment within the sector.

Long-term growth and job openings

Table 5 indicates the long-term net job growth per annum expected in these occupation groups, according to Deloitte Access Economics' economic modelling of the scenarios.

Livestock Farmers are forecast to show comparatively strong occupational growth to 2025 under all four scenarios, due in part to international trade factors and the growing demand for protein-based foods in developing Asian markets. In contrast, employment of Crop Farmers and Mixed Crop and Livestock Farmers is expected to decline in the years to 2025 within the Smart Recovery, Terms of Trade Shock and Ring of Fire worlds.

The same trend is true of farm workers, where employment among Crop Farm Workers and Packers is expected to decrease across all four scenarios due to gains in productivity, such as increased automation and other labour-saving efficiencies. Structural adjustment within the industry is reflected in the strong occupational growth among Agricultural, Forestry and Horticultural Plant Operators, which is forecast to grow at above two per cent across the three highest growth scenarios to 2025.

Table 5 Average annual occupation growth in four scenarios, 2011-18 and 2011-25 (%pa)

Industry	Long Boom		Smart Recovery		Terms of Trade Shock		Ring of Fire	
	2018	2025	2018	2025	2018	2025	2018	2025
1213 Livestock Farmers	4.0	2.4	3.1	1.7	3.1	1.7	2.1	0.7
1212 Crop Farmers	1.9	0.5	1.1	-0.2	1.0	-0.1	0.2	-1.1
1214 Mixed Crop and Livestock Farmers	0.7	0.2	-0.4	-0.8	-0.5	-0.8	-1.8	-2.2
8415 Livestock Farm Workers	1.2	0.9	0.5	0.3	0.5	0.4	-0.2	-0.4
8412 Crop Farm Workers	-3.3	-3.2	-4.1	-4.0	-4.2	-3.9	-4.9	-4.7
7211 Agricultural, Forestry and Horticultural Plant Operators	4.6	2.6	4.0	2.2	3.9	2.1	3.3	1.4
5512 Bookkeepers	0.8	0.5	-0.1	0.0	0.0	0.0	-0.9	-0.7
8414 Garden and Nursery Labourers	1.0	0.9	-0.4	0.3	-0.3	0.3	-1.3	-0.5
8321 Packers	0.2	-0.1	-0.1	-0.5	0.1	-0.3	0.2	-0.3
8992 Deck and Fishing Hands	7.6	5.2	6.8	4.8	6.7	4.5	5.8	3.7
All occupations	2.1	2.0	1.5	1.5	1.7	1.6	0.8	0.7

Source: Deloitte Access Economics (2012) *Economic modelling of skills demand and supply*, Scenario output—detailed employment results.

As noted, the data in Table 5 concerns employment growth in an industry. The number of total **job openings** which includes both employment growth and **the replacement resulting from individuals leaving the occupation net of those re-entering** can also be estimated. This replacement requirement is particularly significant in industries where there are high numbers of people retiring or leaving the occupation.

Table 6 shows the average annual job openings projected in key agricultural, fishing and forestry occupations to 2025.

Under all four scenarios, the highest rate of average annual job openings to 2025 is forecast for Livestock Farmers and Livestock Farm Workers. There is also expected to be a high rate of job openings for Deck and Fishing Hands, but this is off a lower base, with only 4,000 people currently employed in this occupation within the agriculture, forestry and fishing industry (see Table 3).

Table 6 Average annual job openings per annum 2011 to 2025, in four scenarios

Occupation	Long Boom		Smart Recovery		Terms of Trade Shock		Ring of Fire	
	('000)	%	('000)	%	('000)	%	('000)	%
1213 Livestock Farmers	5.7	5.4	4.9	4.7	4.9	4.7	4.1	3.7
1212 Crop Farmers	2.1	3.6	2.0	2.9	2.0	2.9	1.8	2.0
1214 Mixed Crop and Livestock Farmers	1.6	3.9	1.4	2.9	1.4	2.9	1.3	1.5
8415 Livestock Farm Workers	1.8	4.7	1.6	4.1	1.6	4.1	1.4	3.3
8412 Crop Farm Workers	0.8	0.3	0.7	-0.4	0.7	-0.4	0.7	-1.1
7211 Agricultural, Forestry and Horticultural Plant Operators	0.8	4.9	0.8	4.4	0.7	4.3	0.7	3.6
5512 Bookkeepers	2.9	2.2	2.3	1.7	2.3	1.7	1.9	1.0
8414 Garden and Nursery Labourers	1.9	3.5	1.6	2.9	1.6	2.9	1.3	2.0
8321 Packers	2.2	3.0	2.2	2.7	2.2	2.8	2.2	2.9
8992 Deck and Fishing Hands	1.0	8.0	0.9	7.6	0.9	7.3	0.8	6.5
All occupations	576.4	4.4	500.9	3.9	513.3	4.0	391.4	3.1

Source: Deloitte Access Economics (2012) *Economic modelling of skills demand and supply*, Scenario output – detailed employment results. Net replacement demand by AWPA (2013).

As Table 7 shows, nearly as many, or in some cases, more job openings are created by replacement demand as by new job growth. For example, for Livestock Farmers; Crop Farmers and Mixed Crop and Livestock Farmers in the Long Boom world, it is expected that the majority of job openings to 2025 will come from replacement requirements. This is attributable primarily to the age profile of the industry workforce, with the majority of current workers aged 45 years or older. In the case of Packers, almost nine-tenths of jobs are forecast to be created by replacement, at 30,500, rather than from annual growth, at 2,700. This is also likely due to workforce dynamics such as the rate of job turnover. In comparison, the majority of job openings for Deck and Fishing Hands are likely to come from job growth than from replacement demand.

Table 7 Total job openings (growth and net replacement) in four scenarios, 2011 to 2025

7.1 Long Boom

Occupation	Total growth (persons)		Net replacement estimates (persons)		Total job openings (persons)	
	('000)	%	('000)	%	('000)	%
1213 Livestock Farmers	36.2	42.2	49.6	57.8	85.9	100.0
1212 Crop Farmers	7.8	24.3	24.3	75.7	32.1	100.0
1214 Mixed Crop and Livestock Farmers	3.5	14.0	21.2	86.0	24.7	100.0
8415 Livestock Farm Workers	5.3	19.8	21.4	80.2	26.7	100.0
8412 Crop Farm Workers	0.0	0.0	11.4	100.0	11.4	100.0
7211 Agricultural, Forestry and Horticultural Plant Operators	6.2	49.4	6.4	50.6	12.6	100.0
5512 Bookkeepers	12.4	28.2	31.5	71.8	43.9	100.0
8414 Garden and Nursery Labourers	11.0	39.5	16.8	60.5	27.9	100.0
8321 Packers	2.7	8.0	30.5	92.0	33.1	100.0
8992 Deck and Fishing Hands	9.5	64.3	5.3	35.7	14.9	100.0
All occupations	3,889.7	45.0	4,755.6	55.0	8,645.3	100.0

7.2 Smart Recovery

Occupation	Total growth (persons)		Net replacement estimates (persons)		Total job openings (persons)	
	('000)	%	('000)	%	('000)	%
1213 Livestock Farmers	27.3	36.8	46.9	63.2	74.2	100.0
1212 Crop Farmers	6.3	21.6	23.0	78.4	29.4	100.0
1214 Mixed Crop and Livestock Farmers	1.7	7.9	19.7	92.1	21.4	100.0
8415 Livestock Farm Workers	3.2	13.4	20.5	86.6	23.6	100.0
8412 Crop Farm Workers	0.0	0.0	10.8	100.0	10.8	100.0
7211 Agricultural, Forestry and Horticultural Plant Operators	5.3	46.3	6.1	53.7	11.4	100.0
5512 Bookkeepers	4.8	13.9	29.9	86.1	34.7	100.0
8414 Garden and Nursery Labourers	7.6	32.7	15.6	67.3	23.3	100.0
8321 Packers	2.5	7.6	29.8	92.4	32.3	100.0
8992 Deck and Fishing Hands	8.6	63.0	5.1	37.0	13.7	100.0
All occupations	2,953.2	39.3	4,559.6	60.7	7,512.9	100.0

7.3 Terms of Trade Shock

Occupation	Total growth (persons)		Net replacement estimates (persons)		Total job openings (persons)	
	('000)	%	('000)	%	('000)	%
1213 Livestock Farmers	26.3	35.8	47.0	64.2	73.3	100.0
1212 Crop Farmers	6.2	21.2	23.1	78.8	29.3	100.0
1214 Mixed Crop and Livestock Farmers	1.4	6.5	19.8	93.5	21.2	100.0
8415 Livestock Farm Workers	2.9	12.3	20.6	87.7	23.5	100.0
8412 Crop Farm Workers	0.0	0.0	10.8	100.0	10.8	100.0
7211 Agricultural, Forestry and Horticultural Plant Operators	4.9	44.7	6.1	55.3	11.0	100.0
5512 Bookkeepers	4.0	11.7	30.0	88.3	34.0	100.0
8414 Garden and Nursery Labourers	7.5	32.2	15.8	67.8	23.3	100.0
8321 Packers	2.5	7.7	30.1	92.3	32.7	100.0
8992 Deck and Fishing Hands	8.1	61.9	5.0	38.1	13.1	100.0
All occupations	3,080.4	40.0	4,619.3	60.0	7,699.6	100.0

7.4 Ring of Fire

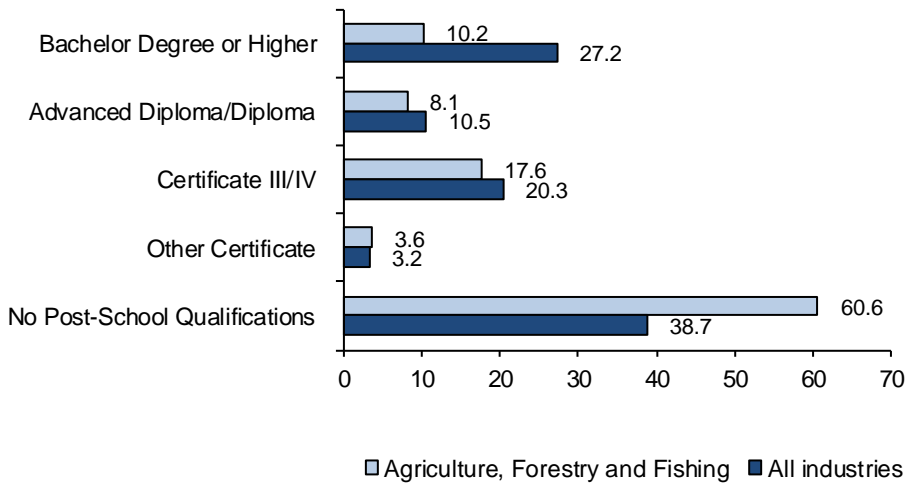
Occupation	Total growth (persons)		Net replacement estimates (persons)		Total job openings (persons)	
	('000)	%	('000)	%	('000)	%
1213 Livestock Farmers	18.3	29.5	43.8	70.5	62.1	100.0
1212 Crop Farmers	5.7	20.7	21.8	79.3	27.4	100.0
1214 Mixed Crop and Livestock Farmers	0.8	4.1	18.0	95.9	18.8	100.0
8415 Livestock Farm Workers	1.4	6.7	19.5	93.3	20.9	100.0
8412 Crop Farm Workers	0.0	0.0	10.3	100.0	10.3	100.0
7211 Agricultural, Forestry and Horticultural Plant Operators	4.0	40.6	5.8	59.4	9.8	100.0
5512 Bookkeepers	0.7	2.4	28.4	97.6	29.1	100.0
8414 Garden and Nursery Labourers	4.1	21.8	14.7	78.2	18.9	100.0
8321 Packers	2.8	8.6	30.3	91.4	33.1	100.0
8992 Deck and Fishing Hands	6.7	59.0	4.7	41.0	11.4	100.0
All occupations	1,532.9	26.1	4,338.5	73.9	5,871.4	100.0

Source: Deloitte Access Economics (2012) *Economic modelling of skills demand and supply*, Scenario output - detailed employment results. Net replacement demand by AWPA (2013).

Education and training profile

The agriculture, forestry and fishing workforce has a relatively high proportion of workers who do not possess post-school qualifications, at 60.6 per cent compared to 38.7 per cent for all industries. However, nearly one in five (17.6 per cent) workers in the agriculture, forestry and fishing industry has completed a Certificate III/IV qualification.

Figure 1 Education profile of the agriculture, forestry and fishing workforce (%)



Note: Excludes 'Level of education not stated' from total.
 Source: DEEWR (2012) *Australian Jobs 2012* (ABS 2011 Census data).

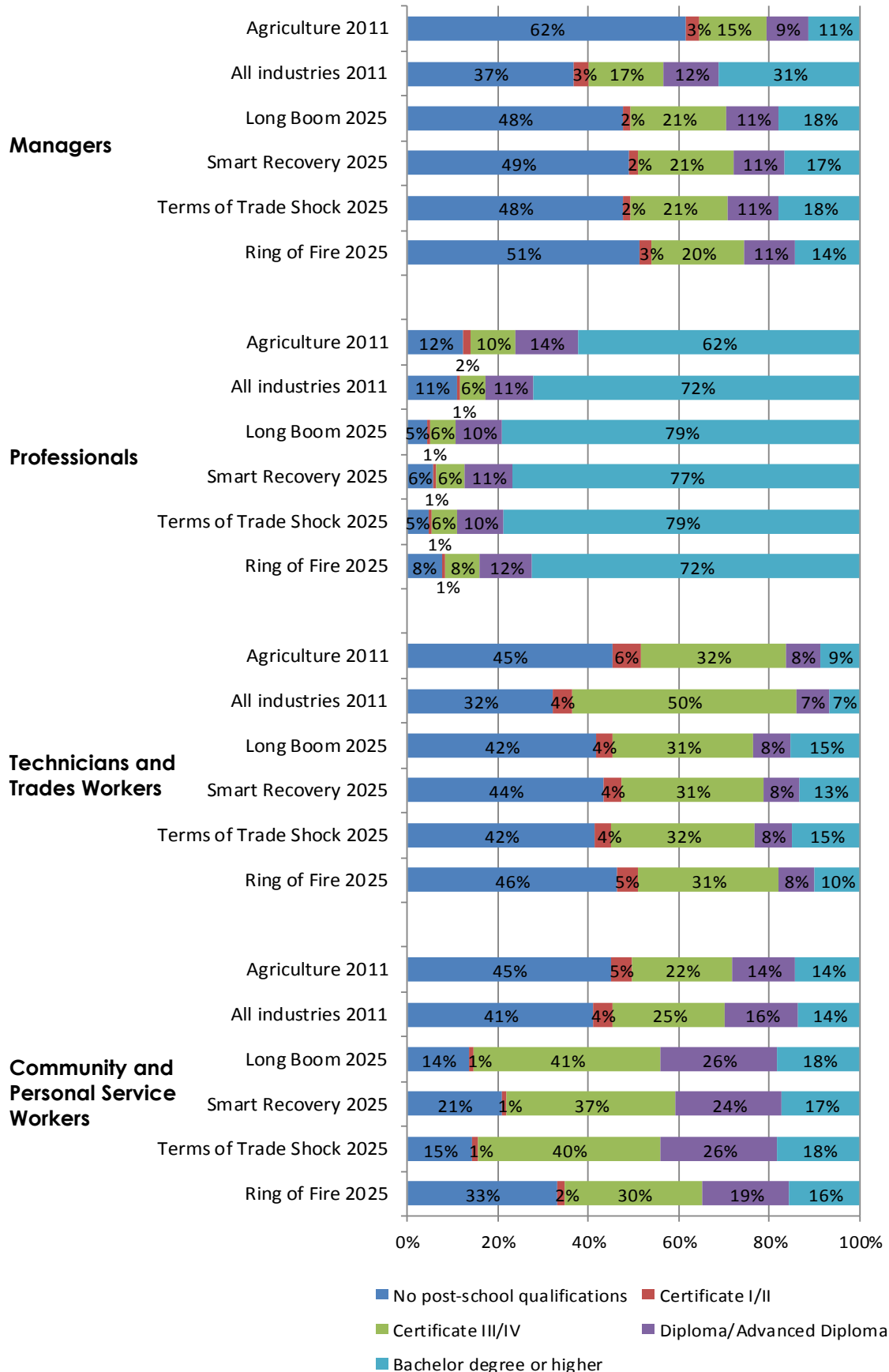
Figure 2 shows how demand for qualifications is expected to change over time. It shows the current education profile for each respective occupation: across all industries and within the agriculture, forestry and fishing industry. It also shows projected levels of educational attainment to 2025 by each occupation group depending on which of the four scenarios eventuates.

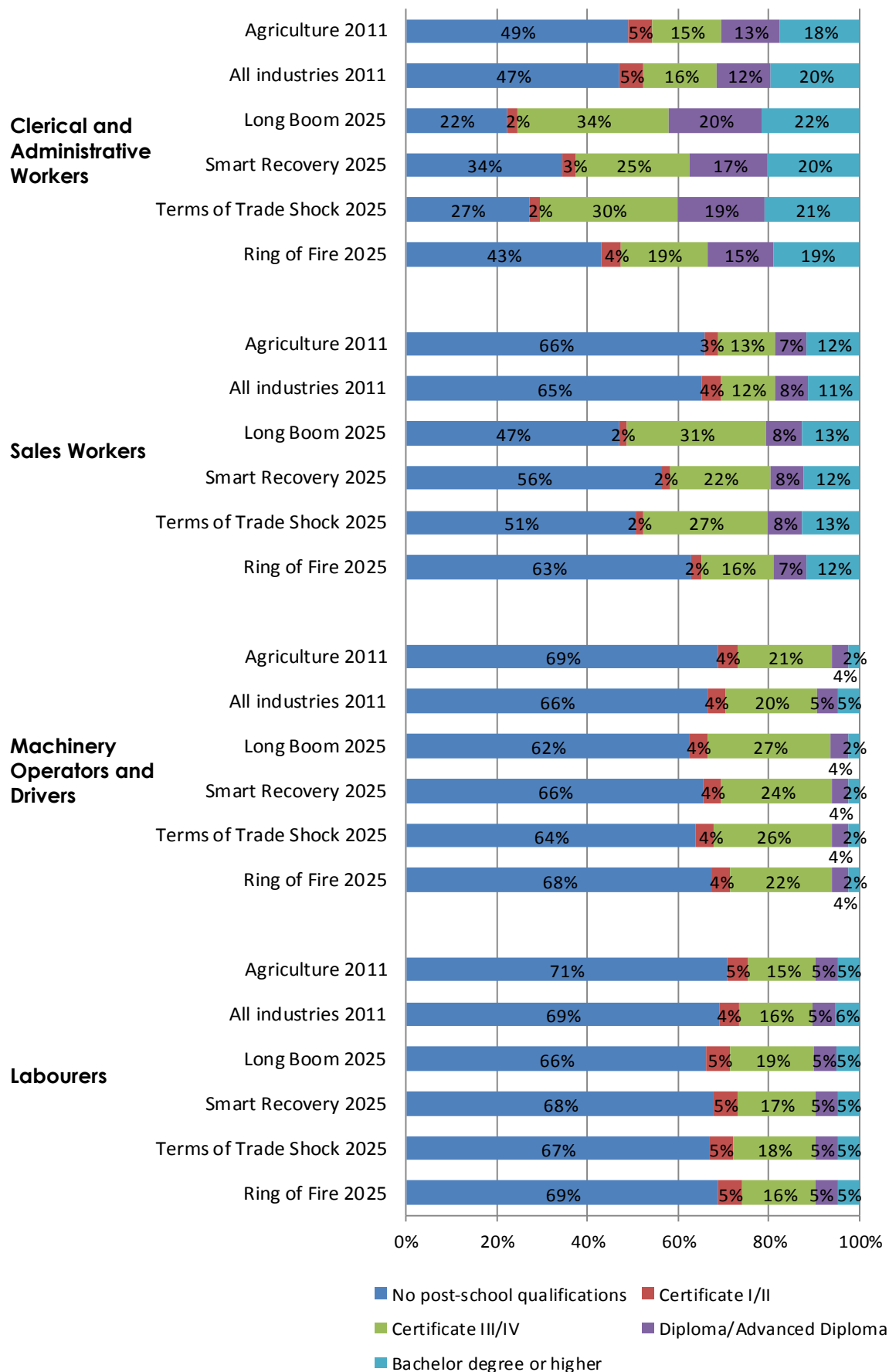
As Figure 2 shows, the proportion of managers with no post school qualifications is expected to decrease under all four scenarios. In 2011, the majority of managers in the agriculture, forestry and fishing industry (62 per cent) did not hold post-school qualifications. By 2025, this is expected to reduce to less than half under the three higher growth scenarios, with the proportion of managers with a Bachelor degree or higher expected to grow from 11 per cent in 2011 to between 17 and 18 per cent in 2025. This trend towards upskilling is important as managers represent the largest occupational group in the agriculture industry, reflecting the number of farm owners and operators in the sector (i.e. with Livestock Farmers, Crop Farmers, and Mixed Crop and Livestock Farmers the top three occupations, as shown in Table 3).

In comparison, professionals in the industry are a relatively small occupational group numbering approximately 9,200 in 2011. As Figure 2 indicates, 62 per cent of professionals in the agriculture industry currently hold a Bachelor degree or higher, but this is anticipated to rise to over three-quarters by 2025 under most scenarios.

The trend of skills deepening is particularly pronounced among clerical and administration workers, with the proportion of workers without post-school qualifications expected to more than halve under the Long Boom scenario and to decrease substantially across the other three scenarios to 2025. This rise in qualification holding is attributable primarily to an increase in the proportion of workers with Certificates III and IV.

Figure 2 Educational attainment in the agriculture, forestry and fishing industry by occupation, 2011 and modelling to 2025 (%)





Source: ABS (2012) *Survey of Education and Work 2012*, cat. no. 6227.0; and DAE (2012) Unpublished data.

Specialised occupations

In *Future Focus*, the 2013 National Workforce Development Strategy, AWPA has proposed that national planning for skills and industry workforce development should focus on **specialised occupations**. Specialised occupations are defined as those 'where specialised skills, learned in formal education and training, are needed at entry level and where the impact of market failure is potentially significant for the economy and/or the community.'

Specialised occupations demonstrate these characteristics:

- ▶ long lead time—skills are highly specialised and require extended learning and preparation time over several years;
- ▶ high use—skills are deployed for the uses intended (i.e. good occupational 'fit');
- ▶ high risk—the disruption caused by the skills being in short supply is great, resulting either in bottlenecks in supply chains or imposing significant economic or community costs because an organisation cannot operate; and
- ▶ high information—the quality of information about the occupation is adequate to the task of assessing future demand and evaluating the first three criteria.

Monitoring skills supply, especially for specialised occupations, will remain a critical element in meeting our workforce needs.

Specialised occupations associated with the agriculture, forestry and fishing industry include:

Agricultural and Forestry Scientists

Land Economists and Valuers

Surveyors and Spatial Scientists

Chemists

Veterinarians

More detailed information about specialised occupations is available in *Future Focus, 2013 National Workforce Development Strategy* at <http://www.awpa.gov.au>.

ForestWorks provides comprehensive analysis of the skills needs and critical skills required for the forest, wood, paper and timber products industry. Please refer to the ForestWorks website www.forestworks.com.au and the research documents, the *Industry Environmental Scan* and *Industry Outlook*.

Example workforce development initiatives

Investment in workforce development has been shown to maximise people's capabilities, lift productivity and increase workforce participation. Employee satisfaction levels and engagement also increase when enterprises make better use of their employees' skills.⁴ Current workforce development initiatives in agriculture, forestry and fishing include the following examples:

- ▶ The **Narrabri 'Make it Work'** approach facilitates collaboration and capacity building to address regional skills and workforce challenges at the local level. The initiative focuses on engaging human capital through development of industry and regional career pathways designed to build and manage local skills capacity. For further information, see <http://www.agrifoodskills.net.au/>.
- ▶ Dairy Australia has designed the **People in Dairy Program**, to help farmers improve how they attract, retain and develop the people they need. The program includes a **Diploma of Human Resource Management (Dairy)**, which is targeted primarily at on-farm business advisers. The diploma has been developed by the National Centre for Dairy Education Australia (a partnership between Dairy Australia and Goulburn Ovens TAFE). It is supported by a comprehensive website providing farmers and consultants with a suite of tailored HR tools. For further information see <http://www.thepeopleindairy.org.au>.⁵
- ▶ The **Regional Agrifood Skills and Workforce Development Strategy** seeks to build robust labour pools in rural and regional Australia through cross-industry, locally based collaboration of enterprises, local governments and shires, and their respective communities.⁶
- ▶ The **National Primary Industries Research and Development Framework** recognises that innovation, research, development and extension are key drivers in improving productivity levels of primary industries. Its concept recognises that basic and strategic research can be provided from a distance, with regional adaptive development and local extension enabling its rapid uptake.
- ▶ The **Boorowa River Recovery Project** in NSW addresses water quality and biodiversity in the Boorowa catchment. It provides a compelling example of what can be achieved with new skills and practices at a local level.

⁴ Skills Australia (2012) *Better use of skills, better outcomes: A research report on skills utilisation in Australia*.

⁵ Dairy Australia (2013) *The People in Dairy*, <http://www.thepeopleindairy.org.au/projects.htm>.

⁶ Agrifoods (2013) *Environmental Scan of the Agrifoods Industries*, <http://www.agrifoodskills.net.au/uploads/file/cover.pdf>.