
B Business stock, entry and exit data for Australia and overseas

B.1 Data sources on the number of businesses

There are several sources of data on the number of businesses in Australia and consequently business entries and exits. These sources differ in purpose and by how a business is defined and include:

- the Australian Business Register (ABR)
- Australian Security Investment Commission (ASIC) company register
- Australian Bureau of Statistics (ABS) Counts of Australian Businesses publication
- Australia Taxation Office (ATO) taxation statistics.

The ABR collects information on all registered businesses that require an Australian Business Number (ABN). This information is used to identify and validate business entities. Similarly, ASIC manages all corporate entities that are registered for an Australian Company Number (ACN).

The ABS collects business information for its economic surveys. A count of businesses is undertaken for actively trading businesses, defined as those registered for Goods and Services Tax (GST) that have submitted a Business Activity Statement (BAS) in one of the last five quarters (or one of the last three years for annual remitters).

For individuals and entities, the ATO collects reported business income. This data includes not-for-profit businesses and individuals carrying out business activities but not registered for the GST.

Cross-country data is published by the Organisation of Economic Co-operation and Development (OECD).

This appendix is in four parts:

- the measures and characteristics of businesses in Australia
- entries and exits of businesses
- the demographics of business owners
- how Australia has performed relative to other countries in regard to business entries and exits.

B.2 Businesses in Australia

The number of businesses in the economy depends on how a business is defined — estimates ranged from 2.1 to 7.7 million at the end of 2013-14. In the broadest sense, businesses can be counted as all entities that are required to be registered or, on a narrower focus, just those businesses that are actively trading goods and services. For the purposes of this inquiry, a business is considered to be an entity (for-profit or not-for-profit) that actively trades goods and services.

The ABR consists of all entities that require an ABN. This includes entities that primarily undertake legal and financial transactions, such as superannuation funds, cash management trusts and property strata, rather than trade in goods and services. Inactive businesses can also remain on the ABR for an extended period of time. Around 25 per cent of ABR (2014b) survey respondents (across all business ownership structures) indicated that they were no longer using their business registration. Reported inactivity was higher for sole traders (41 per cent) and partnerships (35 per cent).

In recent years, the number of entities on the ABR has grown faster than the number of businesses actively trading. This growth has been driven by the increased establishment of investment vehicles, such as superannuation funds, and the occurrence of inactive businesses. Future entity growth on the ABR is expected to be lower, as efforts are underway to remove entities no longer requiring an ABN (ABR 2014a). However, because of the occurrence of inactive businesses and investment vehicles on the ABR, it overstates the number of active businesses.

In contrast, the ABS understates the number of businesses, by only counting for-profit businesses registered for the GST. Businesses operating in the non-market sector, such as charities and sporting clubs, and not-for-profit businesses (even those competing with commercial businesses) are excluded. Changes to data sources and the threshold for GST registration have impacted upon the comparability of these counts of businesses over time.

The Commission estimates that there were just over 2.6 million actively trading businesses at the end of 2013-14. These businesses, irrespective of GST registration or profitability status, contribute to the economy by providing goods and services to consumers and by generating employment and income. There are three components to the Commission's estimate:

- *ABS count of GST registered businesses* — 2.1 million actively trading businesses were registered for GST in 2013-14.
- Non-GST registered businesses — 0.5 million individuals (sole traders and partnerships) reported business income whilst not being registered for GST.¹ While

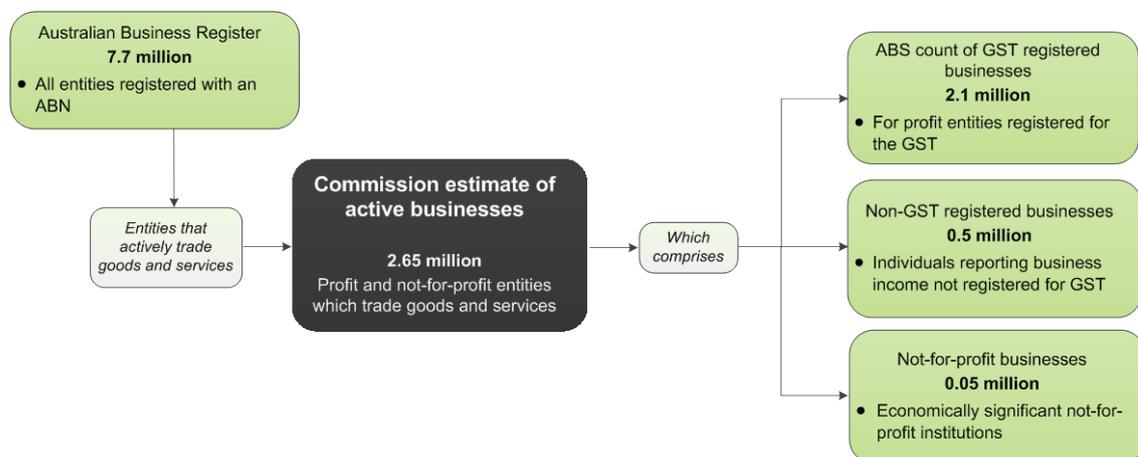
¹ Non-GST registered businesses is for 2012-13 because of a lag in the collection of ATO business income statistics. The number of non-GST registered businesses has been relatively stable, changing by around 1 per cent in the last two years. There are another 0.5 million non-GST registered companies and trusts in operation and based on the industry classification these entities are likely to be investment vehicles.

these businesses generally are small and operate with few intermediate inputs, they operate in the same manner as other businesses and contribute to the economy.

- *Not-for-profit businesses* — 0.05 million economically significant not-for-profit businesses were operating in 2013-14. Many not-for-profit businesses are subject to the same regulatory requirements and standards and operate in the same market as commercial businesses. To consumers, not-for-profit businesses are largely indistinguishable from commercial businesses.

Figure B.1 presents the ways that businesses are counted in Australia, indicating the components of the Commission’s estimate.

Figure B.1 Businesses in Australia^a
2013-14



^a Businesses at the end of 2013-14. Count of non-GST registered businesses is for 2012-13.

Source: ABR (2014a); ABS (2015d); ASIC (2014b) and ATO taxation statistics

Number of businesses by industry

The number of businesses varies according to the industries in which they operate and generally reflects economies of scale and higher fixed costs required to set-up and enter some industries. For example, industries with higher fixed capital cost requirements, such as mining and electricity, have fewer actively trading businesses than those industries, such as construction and retail, which have lower fixed capital costs (table B.1).

The incidence of non-GST and not-for-profit businesses also differs between industries. Non-GST businesses are more common in personal labour service industries, such as information, media and telecommunications and education. Not-for-profit businesses are more common in industries that primarily involve the provision of welfare and social services, such as public administration and health care. Those businesses registered for

GST account for the majority of businesses in primary industries, such as agriculture and mining.

Table B.1 Commission's estimate of businesses, by industry^a
2013-14

<i>Industry</i>	<i>Commission estimate</i>	<i>ABS count of businesses</i>	<i>Non-GST businesses</i>	<i>Not-for-profit businesses^b</i>
	'000	Per cent (of industry total)	Per cent (of industry total)	Per cent (of industry total)
Agriculture	206.3	89.1	10.7	0.2
Mining	8.8	93.6	6.3	0.1
Manufacturing	103.2	81.2	18.7	0.1
Electricity	6.9	86.1	12.1	1.8
Construction	400.8	84.4	15.6	0.1
Wholesale Trade	80.8	94.5	5.4	0.2
Retail Trade	160.0	84.1	15.5	0.4
Accommodation	95.8	89.0	7.0	1.0
Transport	138.5	91.4	8.4	0.2
Information Media and Telecoms	31.1	61.4	36.8	1.8
Finance	191.8	91.1	8.1	0.8
Rental and Real Estate Services	240.0	95.6	4.0	0.4
Professional Services	327.5	75.6	23.0	0.5
Administrative and Support Services	135.4	85.3	40.8	0.9
Public Administration and Safety	10.2	67.7	21.5	10.9
Education	61.1	43.2	47.4	9.3
Health Care	161.1	70.3	25.3	4.4
Arts and Recreational Services	76.9	34.0	58.4	7.7
Other Services	159.3	55.2	21.4	13.4
Unknown	60.9	72.4	25.7	1.9
All industries	2 656.9	79.0	18.9	2.0

^a Businesses at the end of 2013-14. Count of non-GST registered businesses is for 2012-13. ^b Some not-for-profit businesses in the 'other services' industry may not trade goods and services (accounting for fewer than 0.3 per cent of all businesses). Differences between total and components are due to rounding.

Source: ABR (2014b); ABS (2015d) and ATO taxation statistics

Non-GST registered businesses are small

The majority of non-GST registered businesses (individuals and partnerships) operate with no employees (99 per cent). Those with employees are expected to be small, as most non-GST registered businesses had turnover below \$50 000 (88 per cent) and despite the \$75 000 threshold for GST registration, around 1 per cent had turnover greater than \$200 000 (ATO taxation statistics, unpublished).

Not-for-profit businesses are larger and most operate as companies

Not-for-profit businesses are larger on average than for-profit businesses and are a substantial employer — estimates suggest over 1 million people were employed by not-for-profit businesses in 2012-13 (ABS 2014c). Around one-third of not-for-profit businesses had turnover below \$50 000 in 2013-14 and only one in ten had turnover greater than \$2 million. Most not-for-profit businesses operate as companies (95 per cent) and are more likely to do so at higher turnover levels.

Types of business innovation

Business innovation involves the use of knowledge to develop and introduce new or improved products or processes to a market.² Innovation is constantly occurring in the economy, as businesses enter with new products and incumbent businesses use their market knowledge to refine current products and subsequently introduce new products. In practice innovation can take many forms, the OECD and Eurostat (2005) have identified four broad types of business innovation:

1. *Product innovation* — the introduction of a good or service that is new or significantly improved. This includes improvements in technical specifications, components and materials, incorporated software or user friendliness.
2. *Process innovation* — the implementation of a new or significantly improved production or delivery method. This includes changes in production techniques, equipment or software.
3. *Marketing innovation* — the implementation of a new marketing method involving significant change in product design or packaging, placement or promotion.
4. *Organisational innovation* — the implementation of new business practices, workplace organisation or external relations.

These broad definitions of business innovation have varying degrees of ‘novelty’ in terms of whether the product or process is new to the world, Australia, an industry or a particular business. The Commission has considered these four aspects of innovation as two separate categories:

- Innovations that are *new to the world or Australia* — involve truly innovative businesses that originate and adapt products and processes to be the first of their kind to international or Australian markets. These innovators are considered to be the drivers of

² For the purposes of these estimates, innovation is considered for the private sector only. More broadly, innovation has been defined as the deliberative processes by governments and others, in addition to businesses, that add value to the economy or society by generating or recognising potentially beneficial knowledge and using such knowledge to improve products, services, processes or organisational forms (PC 2007).

knowledge and economic growth as the adoption of these ideas in other industries and markets improves business practices and efficiency.

- Innovations that are new to a *particular industry or business* — encompass the broader adoption and diffusion of innovations previously introduced by leading firms. Although these replicative businesses allow for the broader application of ideas and innovation in the economy, they are not strictly innovative in terms of introducing completely new products or processes. Importantly however, these businesses undergo a learning process during the adoption phase that can facilitate the further refinement or improvement of the product or process. Once developed and introduced, subsequent innovations would be new to world or Australia.

The ABS measures business innovation broadly to include all types of innovation. Accordingly, a large proportion (between 30-40 per cent) of businesses were found to be innovative in 2012-13. However, many of these innovations were not very novel — around three quarters of innovative firms introduced a previously developed innovation or idea that was already offered by a competing business. The ABS also presents these proportions relative to employing businesses, which account for less than half of all actively trading businesses and are likely to have different innovation tendencies compared with smaller non-employed businesses.

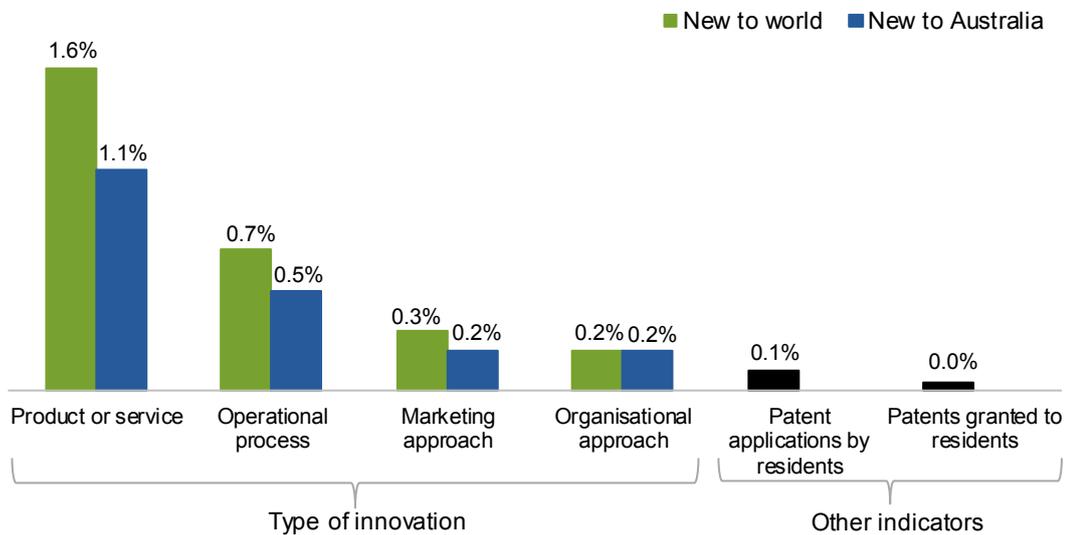
While the Commission's approach is similar, it differs to reflect that a business is considered to be truly innovative when it changes the current operations of existing markets or establishes new markets by introducing new products, processes, marketing methods or organisational approaches. This form of innovation is critical to economic growth and societal advances, as the broader diffusion of these innovations is dependent upon their existence and application to new markets. To be consistent with this definition, the Commission has estimated the number of businesses undertaking innovation that is new to the world or Australia. Any business, with or without employees, contributes to the economy and has the ability to undertake innovation. Because of this the Commission has estimated innovation as a proportion of all actively trading businesses.³

A small group are innovative

Relatively few businesses undertake any innovation and the majority of innovative businesses in the economy are adopting previous innovations and ideas. The Commission estimates that a small number of businesses introduced a product or service that was new to the world or Australia in 2012-13. A smaller share of businesses introduced an operational process, marketing or organisational approach that was new to the world or Australia (figure B.2).

³ The Commission's rates of innovation are based on ABS (2014f) innovation estimates for employing businesses, non-employed businesses are assumed to innovate at the rate observed by Soames et al. (2011, p. 45) for sole traders.

Figure B.2 Few businesses are truly innovative^a
Per cent of all actively trading businesses in 2012-13



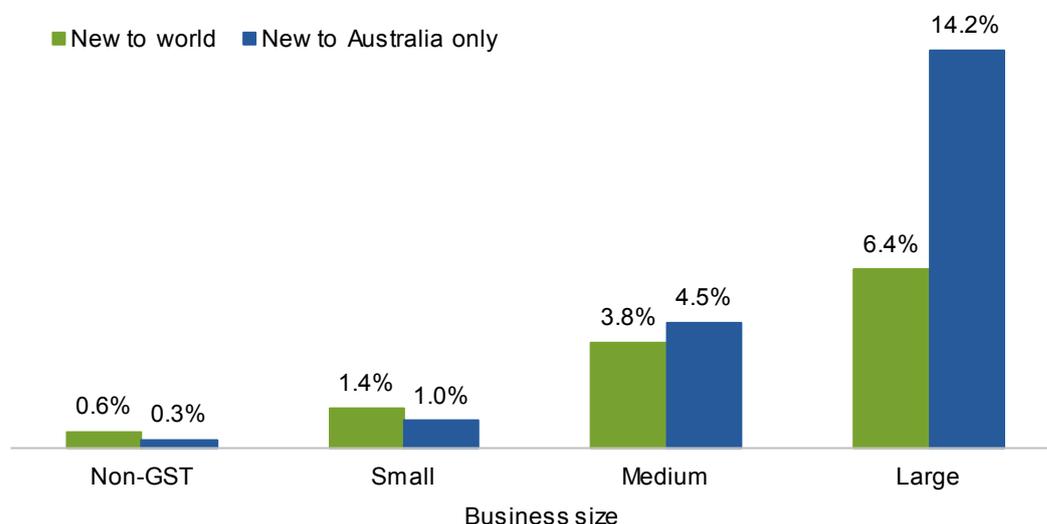
^a Innovation rates are relative to all actively trading businesses that introduced a new product or service that are new to the world or Australia.

Source: Commission estimates based on ABS (2014f)

A similarly small proportion of innovation requires intellectual property protection. Start-ups in the ‘high tech’ industries, which often have high employment and growth prospects, also account for a small proportion of the broader business population.

Small businesses are less likely to undertake ground-breaking innovations. In 2012-13, around 6 per cent of large businesses introduced a product or service that was new to the world, compared with 1 per cent of small businesses. The disparity between small and large businesses increases for product innovations that were new to Australia. (figure B.3). Similar differences between small and large businesses are observed for operational and marketing innovations that were new to international or Australian markets.

Figure B.3 Small businesses are less likely to innovate^a
2012-13



^a Innovation rates are the proportion of businesses in each category that introduced a new product or service that are new to the world or Australia.

Source: Commission estimates based on ABS (2014f)

The majority of businesses face no barriers to innovation

While information is only available for all forms⁴ of innovation, most businesses face no barriers to introducing and implementing innovative products and services. These barriers can be specific to the business, such as costs or the lack of skilled persons, or can represent broader institutional influences, such as regulations or product demand, that slow the development of (or completely prevent) an innovation.

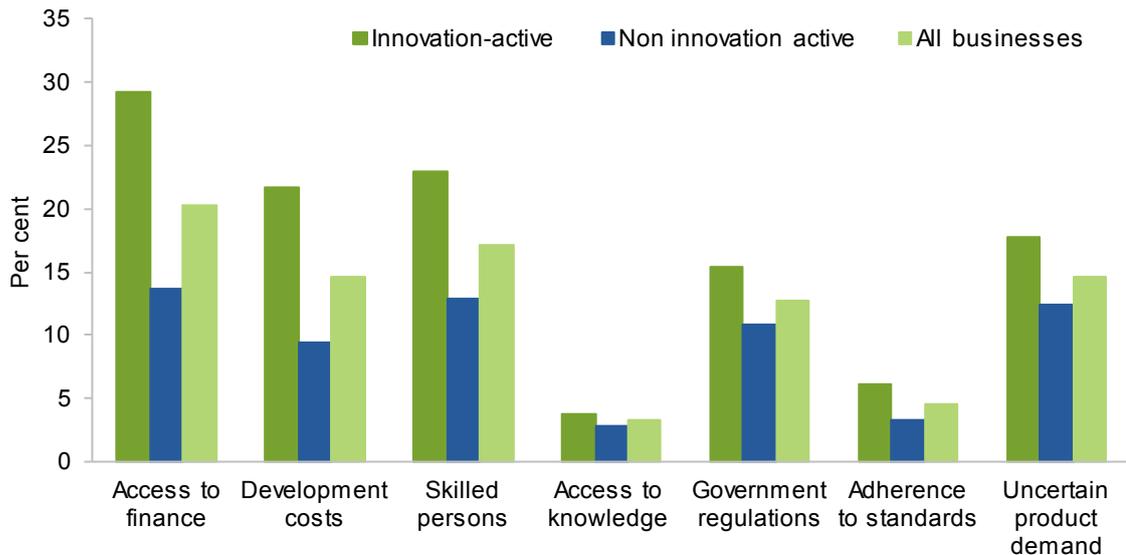
The owners' aspirations and nature of the business are more likely to explain the activities of a non innovation-active business rather than market or structural barriers. In 2012-13, over 65 per cent of non innovation-active businesses indicated that they faced no specific barriers to undertaking any innovation. Smaller businesses were more likely to face barriers than their larger counterparts.

Access to additional funds and the availability of skilled persons serve as the most frequently identified barriers to innovative activity. Uncertainty surrounding product demand and development costs also act as major barriers. Although government

⁴ Barriers to innovative activity are collected for all innovations that are new to the world, Australia, an industry or a particular business. It is likely that specific barriers to innovation differ according to its degree of novelty.

regulations and standards act as a relatively small barrier to all innovative activity, these impediments can particularly impact and prevent the entry of new businesses with innovative digital business models (figure B.4).

Figure B.4 **Barriers to innovation by employing businesses^{a, b}**
2012-13



^a Refers only to employing businesses and includes all types of innovative activities. An innovation-active business is defined as a business that has introduced or developed an innovation during the reference period. A non-innovation active business is defined as a business that, during the reference period, did not undertake any innovative activity. ^b Barriers to innovation are those barriers which significantly hampered the development or introduction of any new or significantly improved goods, services, processes and/or methods. Businesses could identify more than one barrier and were not asked to rank barriers in order of importance.

Source: ABS (2014f)

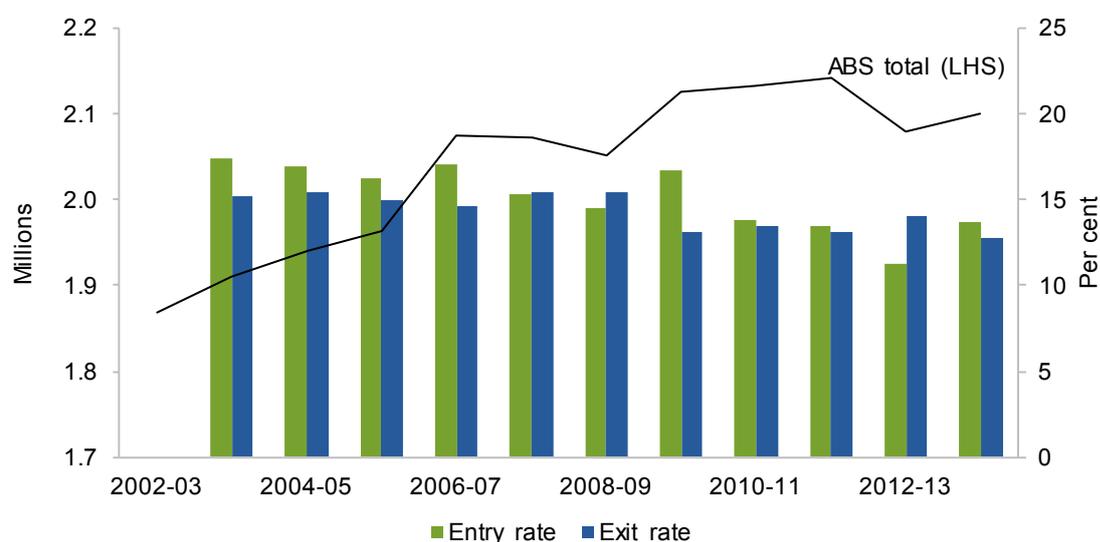
B.3 Business entry and exit trends

Due to data limitations, business entry and exit rates are based on GST-registered for-profit businesses (as published by the ABS). In recent years, there has been little variation in the number of not-for-profit and non-GST registered businesses (around 1-3 per cent a year). Given this, the ABS measure is considered to be broadly indicative of business entry and exit trends. This discrepancy may be larger in specific industries, such as construction and education, where non-GST registered and not-for-profit businesses are more common.

The number of businesses in Australia has generally increased over the last decade. Business numbers declined around the global financial crisis (GFC), subsequently peaked in 2011-12 before declining again in the following year. While the number of businesses

has increased, entries and exits have declined in absolute terms and as a proportion of all businesses over this period (figure B.5).

Figure B.5 Businesses and the rate of entry and exit in Australia^a



^a Entry and exit rates are calculated as a percentage of businesses at the beginning of the financial year. A small number of businesses within scope of the ABS publication enter after 30 June in a given year and exit before 30 June in the following year. This time series draws on a number of ABS publications, each of which have different methodologies. The GST threshold was increased in 2007-08, this may have influenced the rate of entry and exit.

Source: ABS (2007, 2012, 2015d)

Generally, comparisons of entries and exits are made as a proportion of all businesses. In line with the ABS, three measures of business set-up, transfer and closure have been used in this inquiry.

- *Entry rate* — flows in, following set-up or the transfer of ownership, as a proportion of all businesses.
- *Exit rate* — flows out, following closure or the transfer of ownership, as a proportion of all businesses.
- *Survival rate* — the proportion of businesses that are still actively trading after a period of time. Survival rates provide another indication of the rate of exit for a group of businesses, usually those set-up over a 12 month period or all businesses actively trading at a point in time.

Businesses can be characterised in a range of ways. The prevalence of businesses and the rate of entry and exit varies by size (employment and turnover), industry, location and legal structure.

There are some characteristics of businesses that tend to indicate higher entry and exit rates. In summary, between 2009-10 and 2013-14, the majority of entries and exits were small businesses, with fewer than 20 employees or turnover below \$50 000. At set-up, company structures are becoming more common and the number of health care and finance businesses has grown strongly. Over the same period, businesses closing were typically operating as a sole trader. The highest rates of entry have been in Western Australia and the territories. The rate of closure was higher in Queensland, Western Australia and the territories, and in industries such as public administration and support services.

The remainder of this appendix focusses on the data relating to business exits and entry based on business size, the location of the business, by industry and corporate structure. It also uses the available data to look at some of the characteristics of business owners in Australia and a comparison of the entry and exit of businesses in Australia and overseas.

Business size

Table B.2 The majority of businesses have fewer than four employees and those with no employees have the highest entry and exit rates^a

Entry and exit rates, by employment size, 2009-10 to 2013-14

<i>Employee size</i>	<i>Number of employees</i>	<i>End of 2009-10</i>	<i>End of 2013-14</i>	<i>Average entries</i>	<i>Average entry rate</i>	<i>Average exits</i>	<i>Average exit rate</i>
		'000	'000	'000	per cent	'000	per cent
Small	0-19	2 072.2	2 044.9	275.8	13.3	280.3	13.6
<i>of which:</i>	0	1 303.0	1 273.8	185.4	14.3	213.8	16.5
	1-4	580.2	571.2	80.9	13.9	55.5	9.6
	5-19	189.0	199.9	9.4	4.9	10.9	5.6
Medium	20-199	49.0	51.7	1.4	2.8	2.0	4.0
Large	200+	3.5	3.6	0.1	2.8	0.2	4.4
Total^b		2 132.4	2 100.2	276.3	13.1	282.4	13.3

^a Averages are the arithmetic mean of the four financial years. Entry and exit rates as a proportion of businesses in each size category at the beginning of the financial year. Differences between total and components are due to rounding. ^b Totals refer to GST-registered for-profit businesses only.

Source: ABS (2015d)

Table B.3 Most businesses have turnover less than \$200 000 and entry and exit rates are higher for low turnover businesses^a

Entry and exit rates, by turnover, 2009-10 to 2013-14

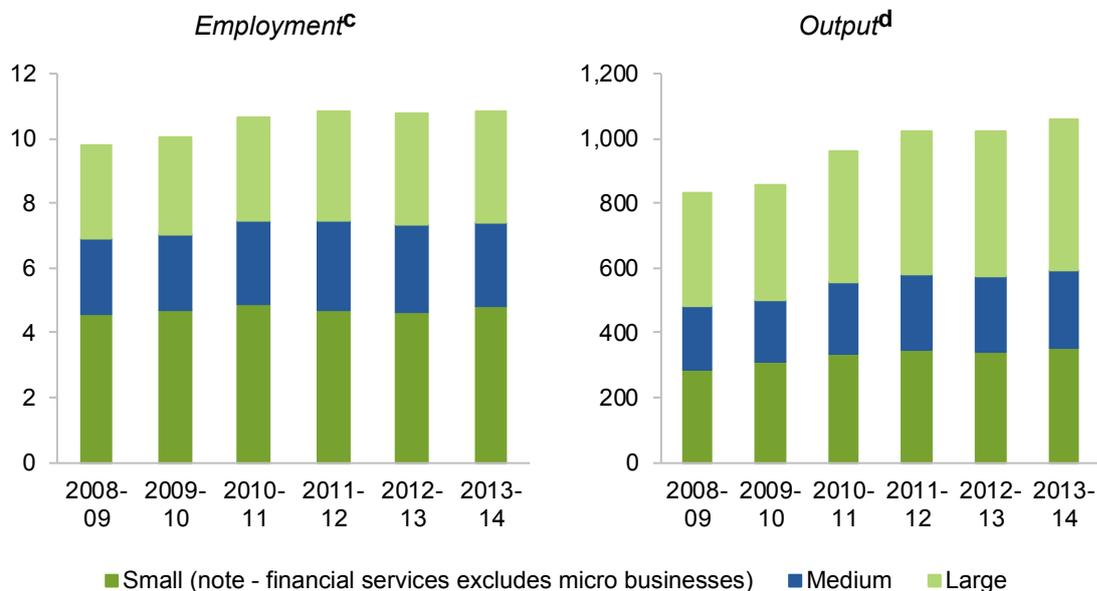
Turnover	End of 2009-10	End of 2013-14	Annual growth	Average entries	Average entry rate	Average exits	Average exit rate
	'000	'000	% / year	'000	per cent	'000	per cent
Zero to less than \$50K	627	556	-3.0	82.3	13.7	125.0	20.9
50K to less than \$200K	740	723	-0.6	121.7	16.6	101.5	13.9
200K to less than \$2m	637	687	1.9	67.5	10.3	50.8	7.7
\$2m or more	121	135	2.8	4.7	3.7	5.1	4.0
Total^b	2 125	2 100	-0.3	276.3	13.1	282.4	13.3

^a Averages are the arithmetic mean of the four financial years. Entry and exit rates as a proportion of businesses in each size category at the beginning of the financial year. Differences between total and components are due to rounding. ^b Totals refer to GST-registered for-profit businesses only.

Source: ABS (2015d)

Figure B.6 While small businesses are a large employer, job creation and output growth has been slower than large businesses^{a,b}

Employment and output by employment size, 2008-09 to 2013-14

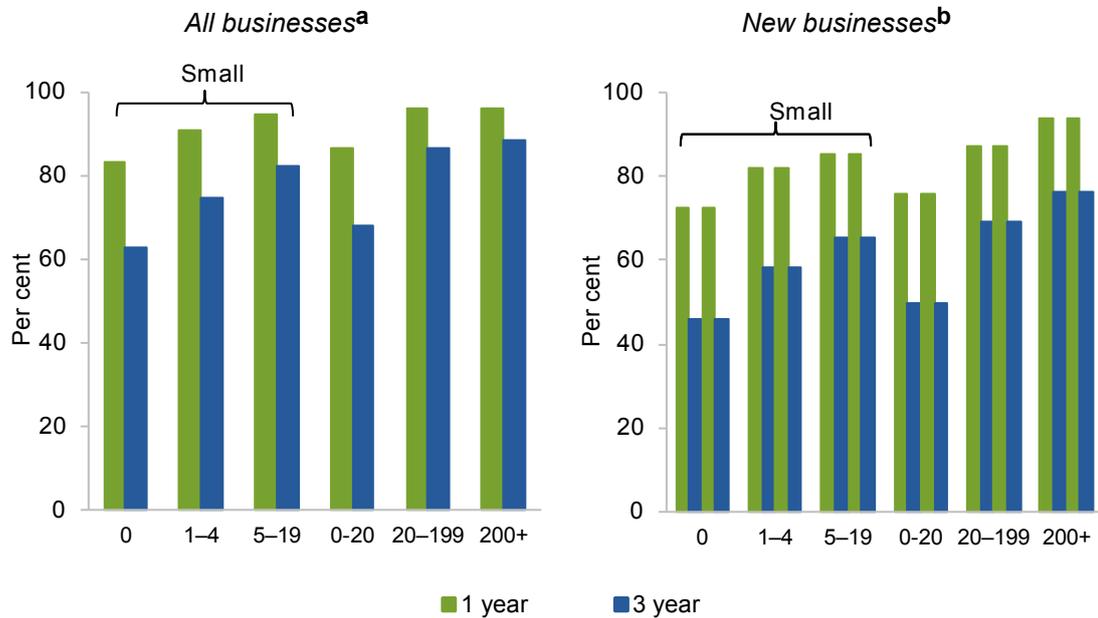


^a A small business is defined to have fewer than 20 employees, a medium business has 20-199 employees and a large business has more than 200 employees. ^b Employment and output data for 2008-09 and 2009-10 is for the non-financial sector. Subsequent years include unpublished employment and output data for auxiliary financial and insurance services, which represents around 2 per cent of non-financial sector. ^c Millions of employed persons. ^d Millions in value added.

Source: ABS (2015b, 2015b, unpublished)

Figure B.7 Survival increases with number of employees ...

Business survival, by employment size

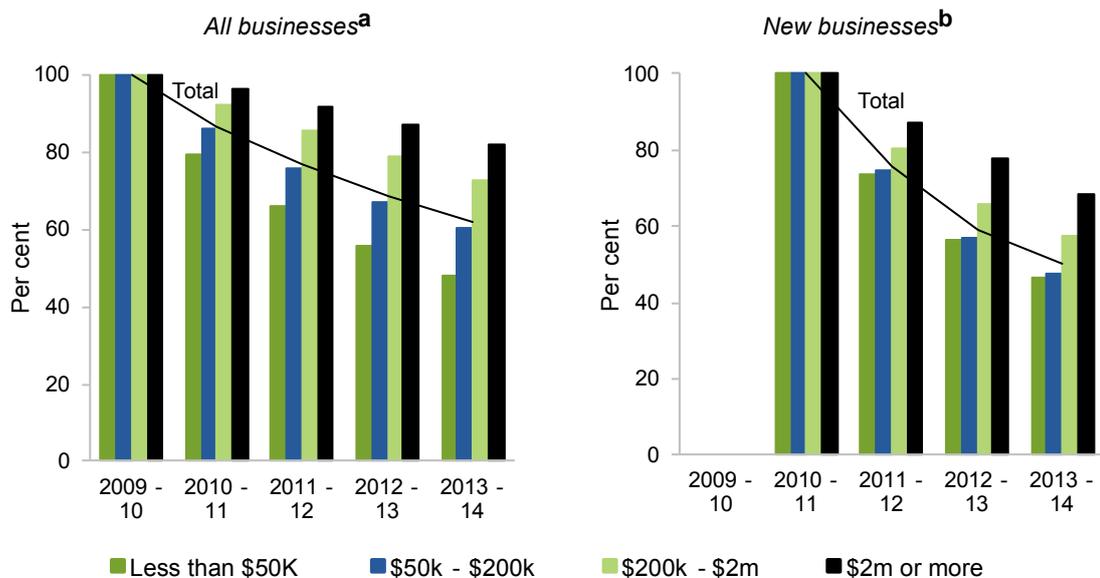


^a All businesses that were operating at the start of 2010-11. ^b All businesses that were set-up or recommenced trading in 2010-11.

Source: ABS (2015d)

Figure B.8 ... and with turnover

Business survival, by turnover, 2009-10 to 2013-14



^a All businesses that were operating at the end of 2009-10. ^b All businesses that were set-up or recommenced trading in 2010-11.

Source: ABS (2015d)

Industry

Table B.4 Business numbers have grown in service industries^a

Entry rates and exit rates, by industry, 2009-10 to 2013-14

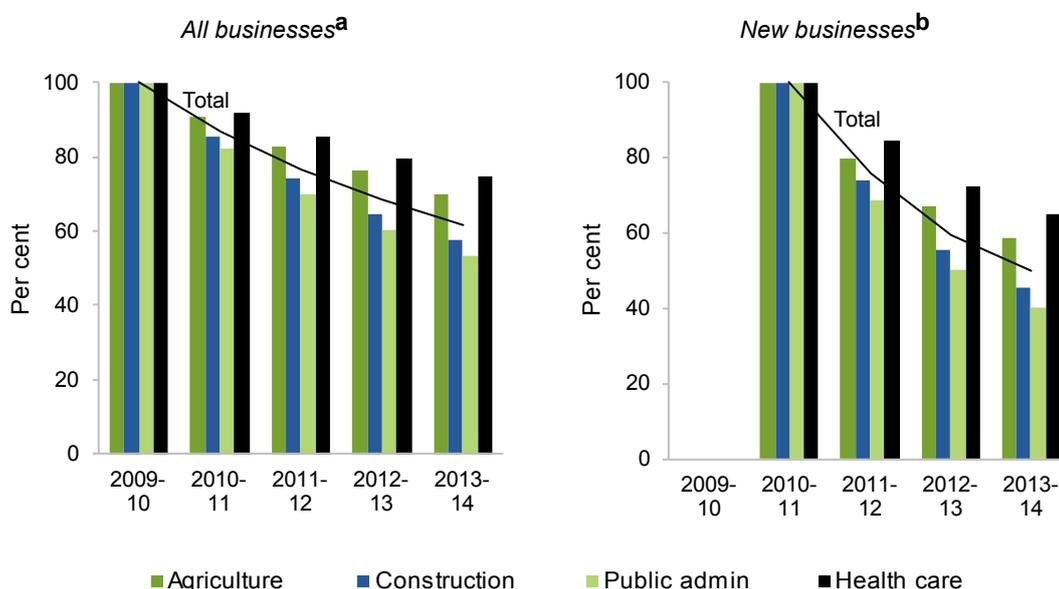
<i>Industry</i>	<i>End of 2009-10</i>	<i>End of 2013-14</i>	<i>Annual growth</i>	<i>Average entries</i>	<i>Average entry rate</i>	<i>Average exits</i>	<i>Average exit rate</i>
	'000	'000	% / year	'000	per cent	'000	per cent
Agriculture	204.2	183.8	-2.6	13.5	6.9	18.7	9.6
Mining	7.9	8.3	1.3	1.0	12.7	0.9	11.4
Manufacturing	91.8	83.8	-2.2	8.5	9.5	10.5	11.7
Electricity	5.7	5.9	0.8	0.8	14.2	0.8	13.3
Construction	351.5	338.2	-1.0	49.3	14.2	52.6	15.1
Wholesale Trade	79.2	76.4	-0.9	9.4	11.9	10.1	12.8
Retail Trade	143.9	134.5	-1.7	18.4	13.0	20.8	14.6
Accommodation	80.3	85.3	1.5	14.3	17.5	13.1	16.0
Transport	135.4	126.6	-1.7	17.4	13.3	19.6	14.9
Information Media and Telecoms	18.7	19.1	0.5	3.0	15.7	2.9	15.2
Finance	161.1	174.7	2.1	21.6	13.1	18.2	11.0
Rental and Real Estate Services	225.6	229.3	0.4	21.9	9.6	20.9	9.2
Professional Services	247.7	250.6	0.3	34.5	13.8	33.8	13.5
Administrative and Support Services	81.6	78.9	-0.8	13.3	16.3	13.9	17.1
Public Administration and Safety	7.8	7.3	-1.7	1.2	15.7	1.3	17.4
Education	25.9	26.4	0.5	3.8	14.4	3.7	13.9
Health Care	98.1	113.2	3.7	12.2	11.9	8.4	8.2
Arts and Rec Services	28.0	26.1	-1.7	3.6	13.4	4.1	15.0
Other Services	89.2	87.9	-0.4	12.0	13.4	12.3	13.8
Unknown	41.1	44.1					
All industries^b	2 124.7	2 100.1	-0.3	276.3	13.1	282.4	13.3

^a Averages are the arithmetic mean of the four financial years. Entry and exit rates as a proportion of businesses in each industry at the beginning of the financial year. Differences between total and components are due to rounding. Unknown refers to businesses that are yet to be coded to an industry by the ABS. ^b All industry totals refer to GST-registered for-profit businesses only.

Source: ABS (2015d)

Figure B.9 Survival is higher in health care, but lower in construction

Business survival, by industry, 2009-10 to 2013-14



^a All businesses that were operating at the end of 2009-10. ^b All businesses that were set-up or recommenced trading in 2010-11.

Source: ABS (2015d)

Location

Table B.5 Business numbers vary with population size^a

Businesses by state, 2009-10 to 2013-14

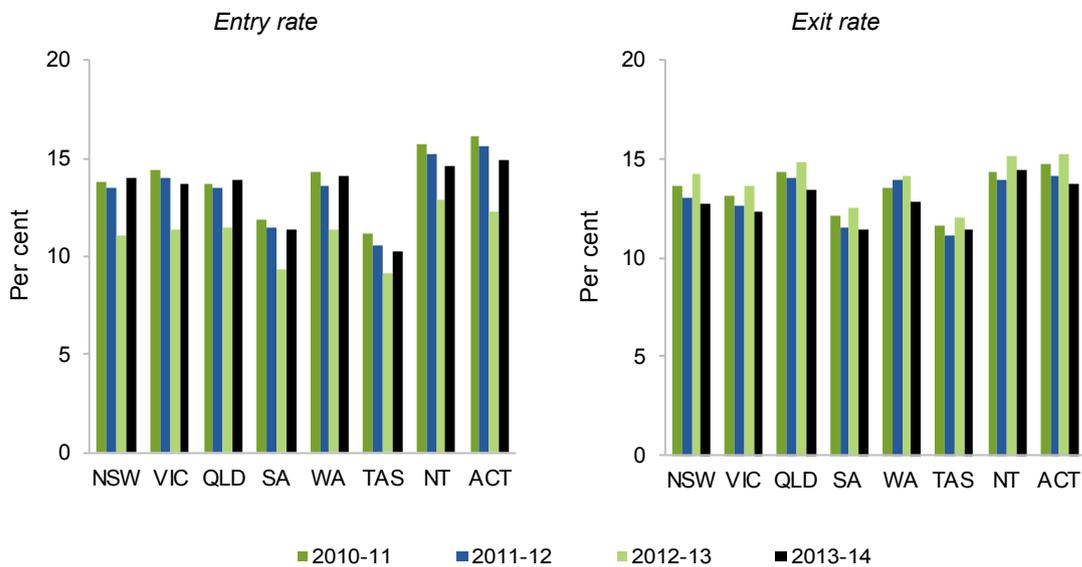
State	End of 2009-10		End of 2013-14		Annual growth % / year
	'000	per capita	'000	per capita	
New South Wales	704.8	9.9	697.0	9.3	-0.3
Victoria	537.3	9.8	546.0	9.3	0.4
Queensland	433.4	9.8	416.7	8.8	-1.0
South Australia	148.7	9.1	143.6	8.5	-0.9
Western Australia	220.9	9.6	218.8	8.5	-0.2
Tasmania	39.0	7.7	37.0	7.2	-1.3
Northern Territory	14.2	6.2	14.3	5.8	0.2
Australian Capital Territory	25.2	7.0	25.5	6.6	0.3
Unknown	1.3		1.4		
Australia^b	2 125	9.6	2 100	8.9	-0.3

^a Main state refers to the state in which the business undertakes the majority of its activity. Per capita estimates are the number of actively trading businesses per 100 people at the end of financial year. ^b Totals refer to GST-registered for-profit businesses only.

Source: ABS (2014a, 2015d)

Figure B.10 Business entry and exit trends are similar across jurisdictions^a

Business entry and exit rates, by state, 2010-11 to 2013-14

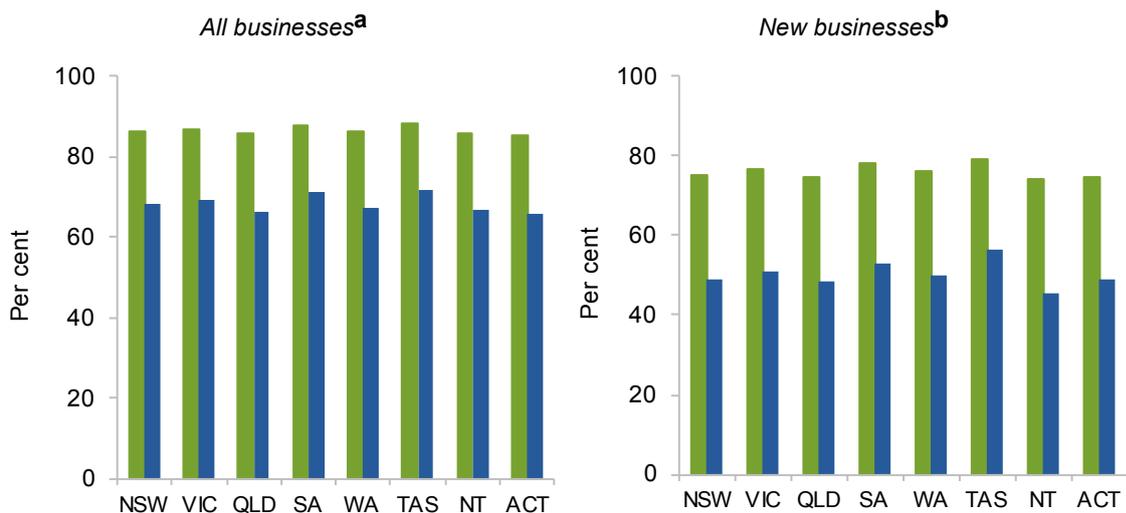


^a Entry and exit rates as a proportion of businesses in each state at the beginning of the financial year.

Source: ABS (2015d)

Figure B.11 Business survival rates are also similar across states

Business survival, by state



^a All businesses that were operating at the start of 2010-11. ^b All businesses that were set-up or recommenced trading in 2010-11.

Source: ABS (2015d)

Business structures

Table B.6 Companies and trusts are becoming more popular at set-up and the rate of entry and exit declines as the structure becomes more complex^a

Business entry and exit rates, by structure, 2009-10 to 2013-14

	<i>End of 2009-10</i>	<i>End of 2013-14</i>	<i>Annual growth</i>	<i>Average entries</i>	<i>Average entry rate</i>	<i>Average exits</i>	<i>Average exit rate</i>
	'000	'000	% / year	'000	per cent	'000	per cent
Sole traders	635.0	555.3	-3.3	94.0	15.5	114.0	18.8
Partnerships	354.3	299.5	-4.1	26.0	7.8	39.7	11.9
Companies	688.7	747.6	2.1	98.0	13.8	83.3	11.7
Trusts	446.0	497.2	2.8	58.2	12.5	45.4	9.7
Total^b	2 124.7	2 100.2	-0.3	276.3	13.1	282.4	13.3

^a Averages are the arithmetic mean of the four financial years. Entry and exit rates as a proportion of businesses in each industry at the beginning of the financial year. Differences between total and components are due to rounding. Excludes public sector businesses, which are a small share (0.03 per cent) of all businesses. ^b Totals refer to GST-registered for-profit businesses only.

Source: ABS (2015d)

Table B.7 Sole traders are common in service industries, while partnerships are preferred in agriculture^a

Businesses, by industry and structure, 2013-14

<i>Industry</i>	<i>Sole traders</i>	<i>Partnerships</i>	<i>Companies</i>	<i>Trusts</i>	<i>Total^b</i>
	'000	'000	'000	'000	'000
Agriculture	53.1	88.3	16.6	25.7	183.8
Mining	0.8	0.4	6.3	0.8	8.3
Manufacturing	16.2	9.9	42.8	14.9	83.8
Electricity	0.9	0.6	3.1	1.2	5.9
Construction	111.5	45.4	121.1	60.2	338.2
Wholesale Trade	8.9	6.1	48.6	12.7	76.3
Retail Trade	28.5	22.5	55.0	28.4	134.5
Accommodation	12.6	15.6	34.9	22.1	85.3
Transport	60.4	12.1	39.6	14.4	126.6
Information Media and Telecoms	4.0	1.1	11.8	2.1	19.1
Finance ^c	8.7	2.6	44.0	119.3	174.7
Rental and Real Estate Services ^c	29.5	48.3	64.0	87.5	229.3
Professional Services	76.2	12.5	119.6	42.2	250.6
Administrative and Support Services	24.2	8.6	32.4	13.7	78.9
Public Administration and Safety	2.1	0.4	3.9	0.9	7.3
Education	7.9	1.7	13.5	3.4	26.4
Health Care	56.4	3.8	34.2	18.8	113.2
Arts and Rec Services	12.3	2.6	8.1	3.1	26.1
Other Services	31.5	13.5	28.3	14.6	87.9
Unknown					44.1
All industries	575.7	296.2	727.6	486.1	2 100.2

^a Counts of businesses for the end of 2013-14. Excludes public sector businesses. Unknown refers to businesses that are yet to be coded to an industry by the ABS. ^b Totals refer to GST-registered for-profit businesses only. ^c Trust structures are particularly prominent in the finance and rental and real estate services industries. This reflects the inclusion of GST-registered businesses superannuation funds and other investment vehicles in finance and non-residential property operators in the real estate services.

Source: ABS (2015d, unpublished)

Table B.8 Companies are the most common structure in nearly all jurisdictions followed by trusts and sole traders^a
Businesses, by state and structure, 2013-14

<i>State</i>	<i>Sole traders</i>	<i>Partnerships</i>	<i>Companies</i>	<i>Trusts</i>	<i>Total^b</i>
	'000	'000	'000	'000	'000
New South Wales	191.9	98.8	299.3	106.8	696.9
Victoria	142.4	66.0	182.0	155.4	545.9
Queensland	104.1	62.6	138.3	111.6	416.7
South Australia	37.9	25.7	35.8	44.0	143.6
Western Australia	56.3	34.3	64.9	63.2	218.8
Tasmania	11.3	7.7	9.8	8.3	37.0
Northern Territory	4.5	1.6	5.5	2.6	14.3
ACT	6.6	2.7	11.0	5.3	25.5
Unknown					1.4
Australia	55.0	299.5	746.5	497.2	2 100.2

^a Counts of businesses for the end of 2013-14. Main state refers to the state in which the business undertakes the majority of its activity. Excludes public sector businesses and unknown refers to entities with no locational information. ^b Totals refer to GST-registered for-profit businesses only.

Source: ABS (2015d, unpublished)

Table B.9 Small businesses are common across all structures and the largest businesses are companies^a

Entry and exit rates, by employment size and structure, 2009-10 to 2013-14

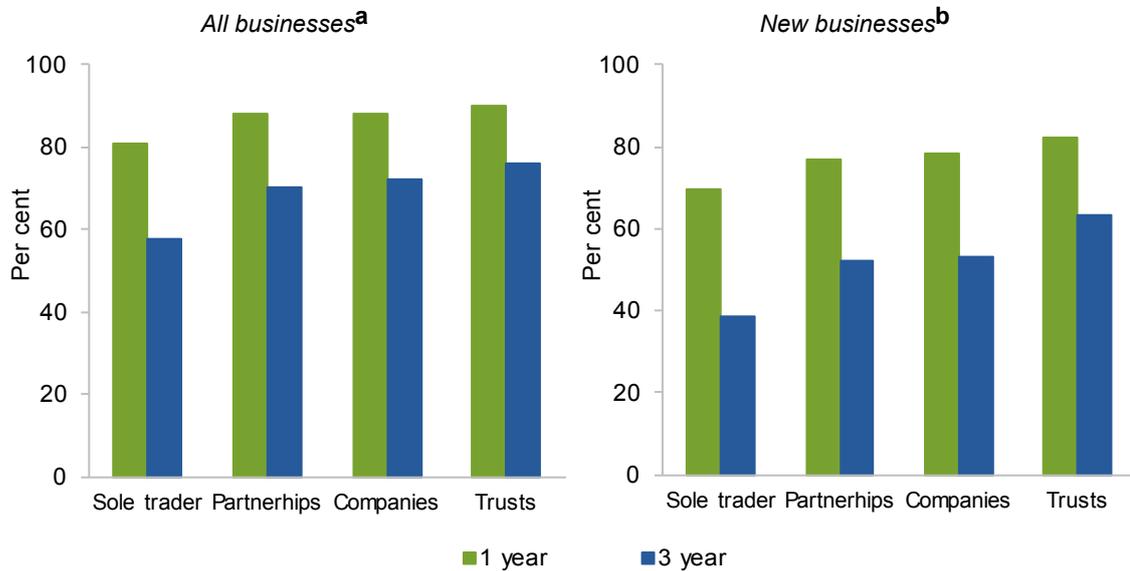
<i>Structure</i>	<i>Number of employees</i>	<i>End of 2009-10</i>	<i>End of 2013-14</i>	<i>Average entries</i>	<i>Average entry rate^b</i>	<i>Average exits</i>	<i>Average exit rate^b</i>
		'000	'000	'000	per cent	'000	per cent
Sole traders							
	0-19	634.4	554.7	94.0	15.5	113.9	18.7
	20-199	0.7	0.6	0.0	4.8	0.1	11.1
	200+	0.0	0.0	0.0	-	0.0	-
	Total	635.0	555.3	94.0	15.5	114.0	18.8
Partnerships							
	0-19	351.3	269.6	25.9	7.8	39.4	11.9
	20-199	3.0	2.8	0.1	2.7	0.2	7.8
	200+	0.1	0.1	0.0	-	0.0	-
	Total	354.3	299.5	26.0	7.8	39.7	11.9
Companies							
	0-19	652.2	708.7	96.9	14.4	81.9	12.2
	20-199	33.5	35.8	1.0	3.1	1.2	3.6
	200+	3.0	3.1	0.1	2.8	0.1	4.1
	Total	688.7	747.6	98.0	13.8	83.3	11.7
Trusts							
	0-19	434.0	484.6	58.0	12.7	44.9	9.9
	20-199	11.7	12.3	0.2	2.1	0.5	3.8
	200+	0.3	0.4	0.0	1.3	0.0	4.0
	Total	446.0	497.2	58.2	12.5	45.4	9.7
Economy total^c		2 124.7	2 100.2	276.3	13.1	282.4	13.3

^a Averages are the arithmetic mean of the four financial years. Entry and exit rates as a proportion of businesses in each size category at the beginning of the financial year. Differences between total and components are due to rounding. ^b Average entry and exit rates are not provided for categories with fewer than 100 businesses and is denoted by '-'. ^c Totals refer to GST-registered for-profit businesses only.

Source: ABS (2015d, unpublished)

Figure B.12 **Survival increases with the complexity of the structure**

Business survival, by structure



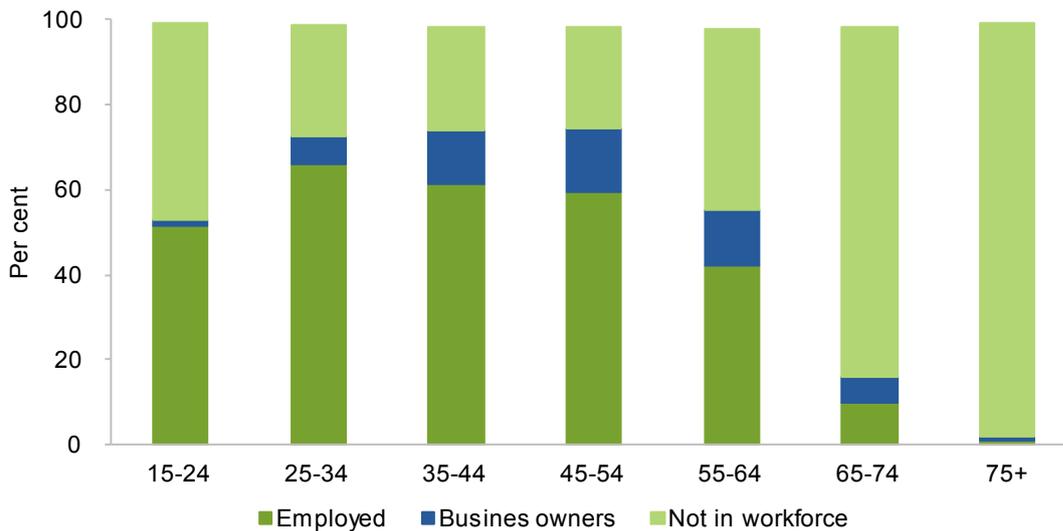
^a All businesses that were operating at the start of 2010-11. ^b All businesses that were set-up or recommenced trading in 2010-11.

Source: ABS (2015d)

B.4 Business owners in Australia

Just over 2 million Australians owned and operated a business at the end of 2012 — fewer than the number of actively trading businesses. Based on the 2011 Census of Population and Housing, business ownership was the main form of employment for around 1.5 million people (ABS 2013a).

Figure B.13 Business owners are a small part of the population and business ownership is most common for 45-54 year olds^a
 Employment type, by age, 2011

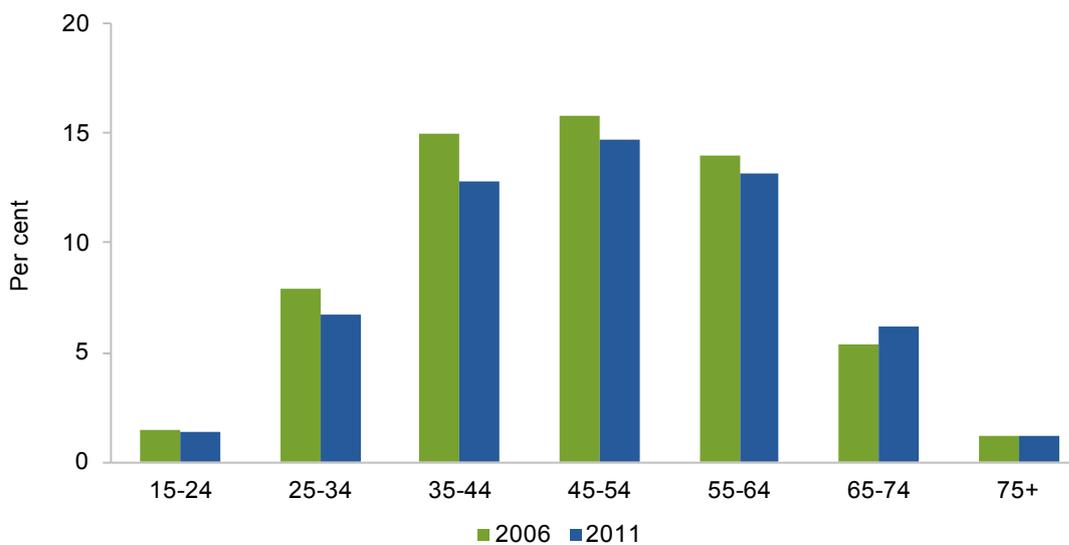


^a Business ownership, employment and not in workforce as a proportion of the population in each age group.

Source: ABS (2013a)

Figure B.14 Business ownership is becoming less common at younger ages^a

Business ownership, by age, 2006 and 2011

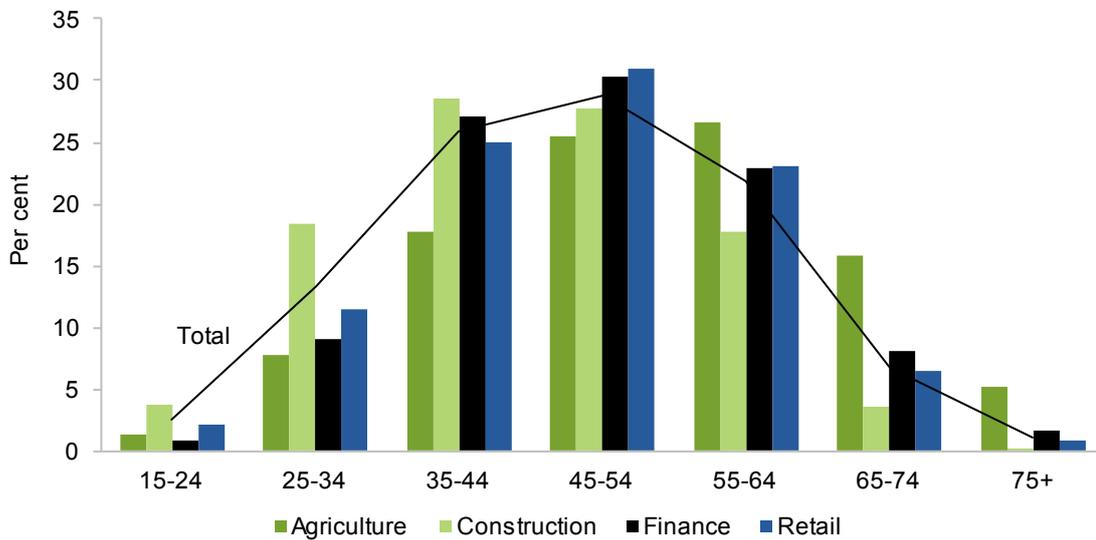


^a Business ownership as a proportion of the population in each age group.

Source: ABS (2013a)

Figure B.15 **Older business owners are more common in agriculture, while those in construction tend to be younger^a**

Age distribution of business owners, by industry, 2011

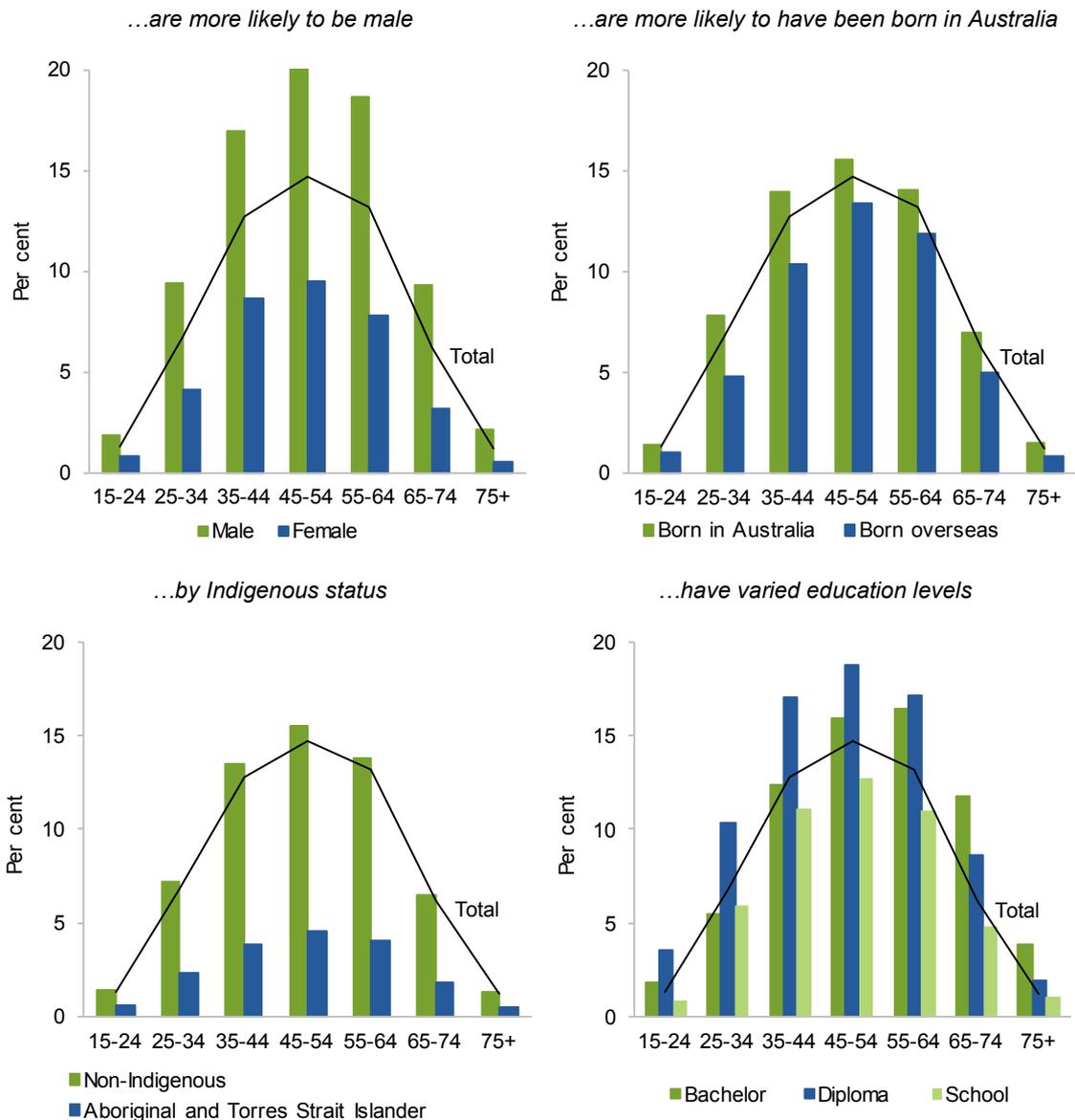


^a Per cent of business owners within each industry.

Source: ABS (2013a)

Figure B.16 Business ownership rates vary across the population^a

Business owners, 2011



^a Business ownership as a proportion of the population in each age group.

Source: ABS (2013a)

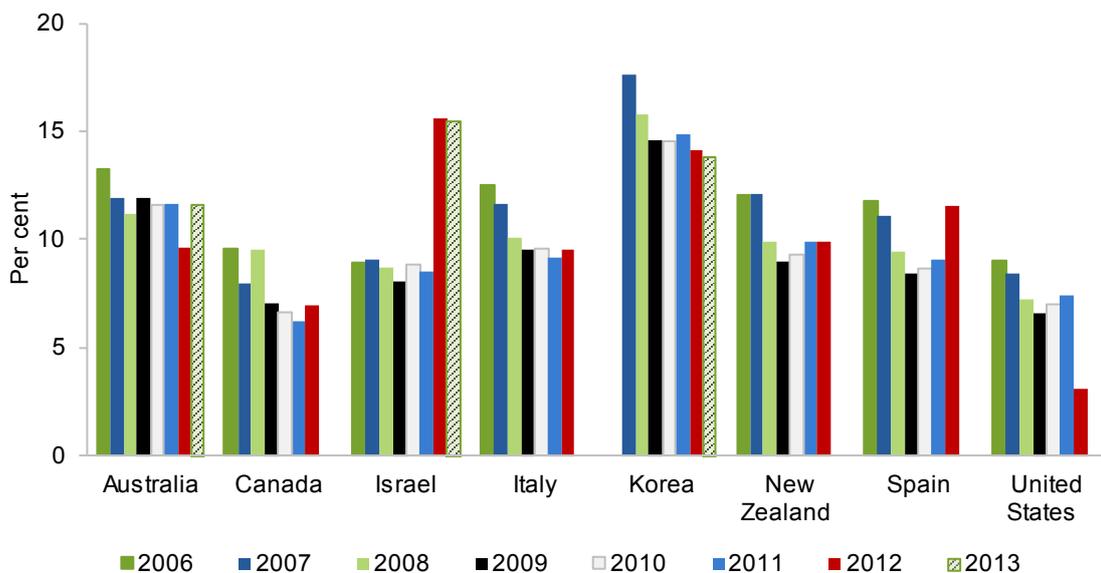
B.5 International comparisons

While cross-country comparisons, like those presented below, can be limited by definitional and methodological differences (Bartelsman, Haltiwanger and Scarpetta 2009), they do provide some indication of business entry and exit in Australia compared with other countries.

Entry and exit rates in Australia and overseas

Figure B.17 **Australia has a relative high entry rate that has largely been maintained while rates in some other countries have declined^{a,b}**

Entry rate for employing businesses, selected OECD countries, 2005 to 2013

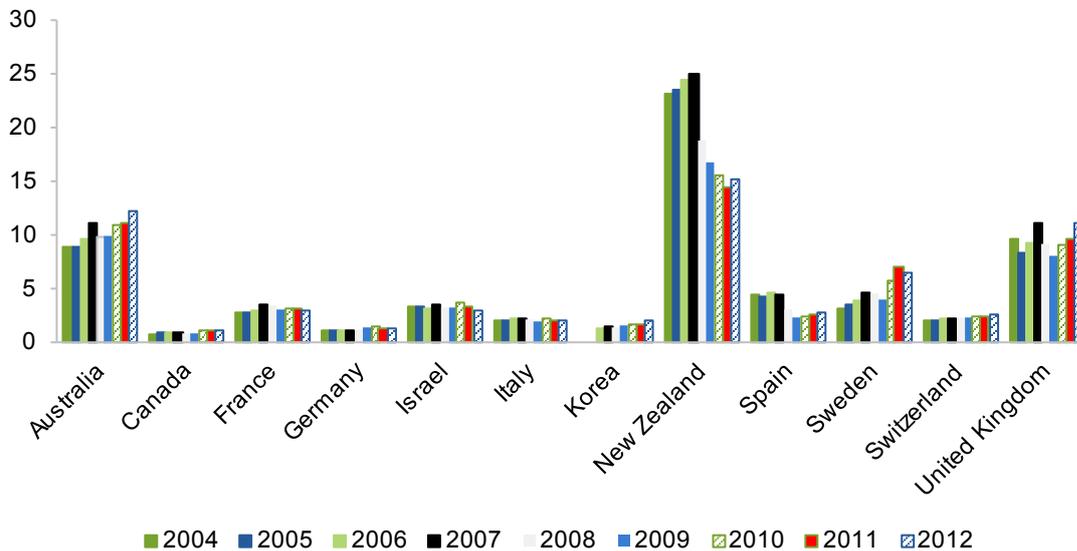


^a The entry rate for employing businesses refers to birth of a business with at least one employee as a proportion of all active businesses with at least one employee. It does not include mergers, split-offs or restructuring of a set of businesses. International comparisons based on employing businesses have been found to be more relevant than indicators using all businesses because results are sensitive to the coverage of business registers. ^b Data for Korea includes non-employing businesses.

Source: ABS (2007, 2014c); OECD (2013a, 2014a, 2015a)

Figure B.18 Company registrations have shown a similar trend^a

New company density, selected developed countries

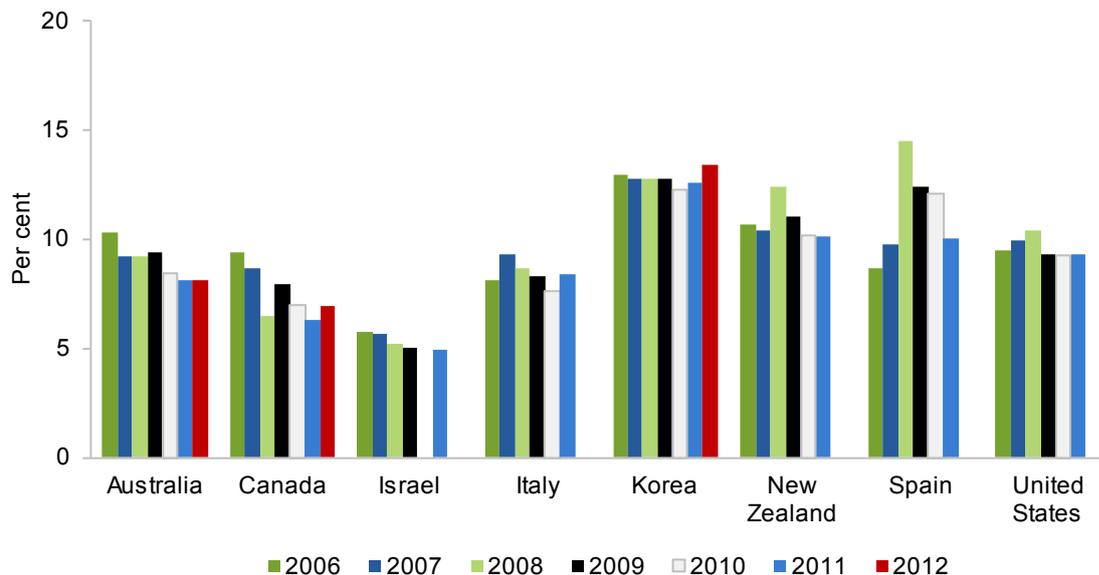


^a New company density is defined as the number of newly registered companies per thousand working-age people (15-64 years).

Source: World Bank Group (2014)

Figure B.19 Australia's exit rate has declined marginally and remains low compared with some other countries^{a,b}

Exit rate for employing businesses, selected OECD countries, 2005 to 2011

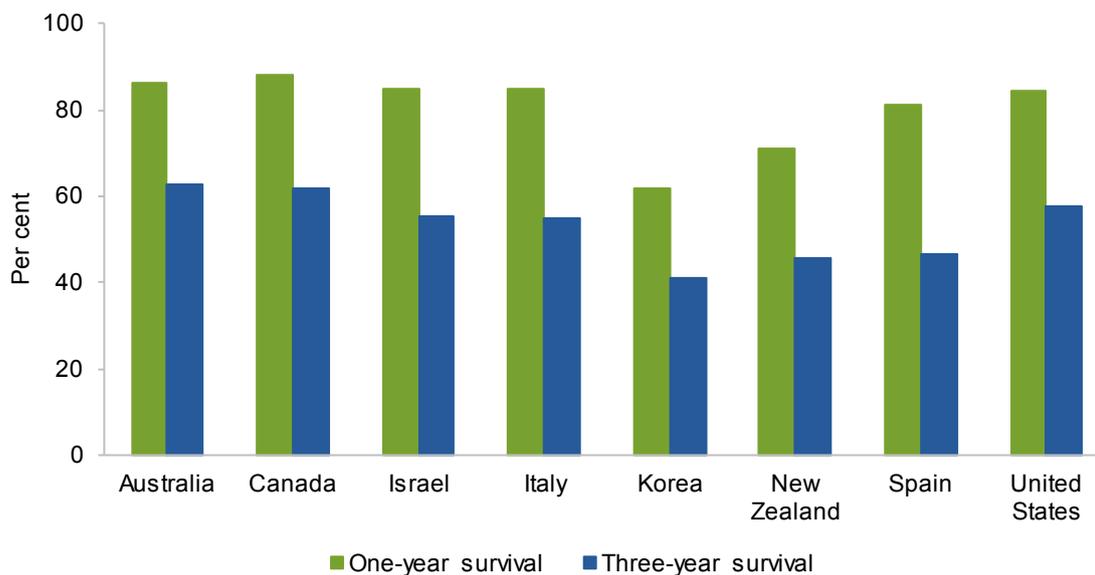


^a The exit rate for employing businesses refers to the death of a business with at least one employee or the contraction of the business to no employees as a proportion of all active businesses with at least one employee. It does not include mergers, split-offs or restructuring. For Australia, business exits are not considered to have occurred when the business changes from having employees to no employees. ^b Data for Korea includes non-employing businesses.

Source: ABS (2007, 2014c); OECD (2013a, 2014a, 2015a)

Figure B.20 New businesses in Australia tend to have a higher rate of survival^{a, b}

New business survival rates, selected OECD countries, 2007 to 2009

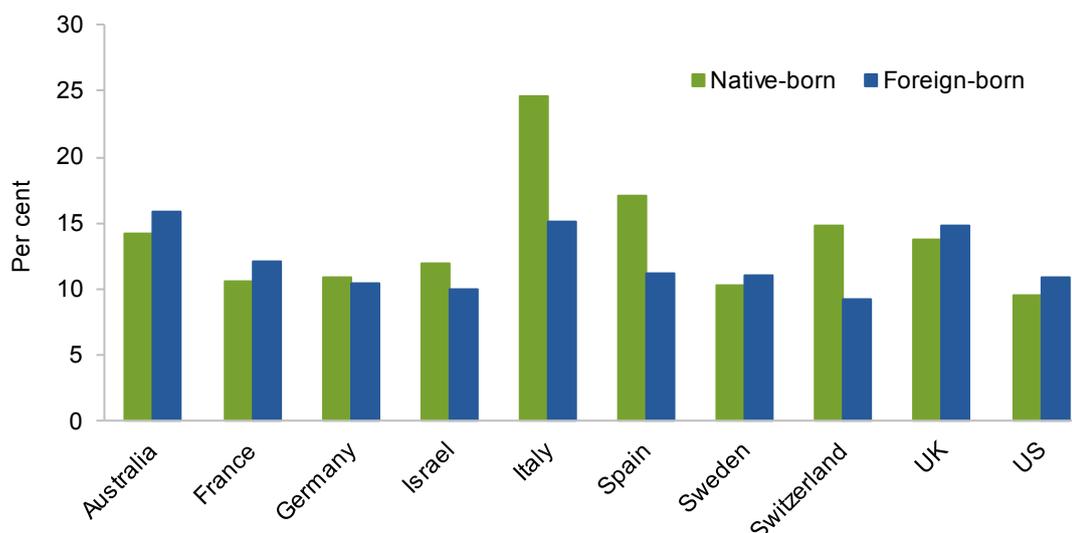


^a Business survival rates as percentage of all employer businesses set-up in 2006. ^b The 3 year survival rate for Canada is for 2006.

Source: OECD (2013c); Industry Canada (2010)

Figure B.21 Self-employment rates vary between countries and according to place of birth^a

Self-employment rate, by place of birth, 2009 to 2011



^a The self-employment rate by place of birth indicates the share of the employed native-born and foreign-born individuals who work as self-employed and are not working in agriculture. Australia is for 2011 and is calculated as business ownership (incorporated and unincorporated) as a proportion of employed persons, excluding contributing family workers. For all other countries, average of 2009 to 2011. For the United States, the data refer only to the unincorporated self-employed.

Source: ABS (2013a); OECD (2013c)

C Set-up requirements

This appendix outlines the processes for setting up new businesses. The first section outlines the basic processes common to all new businesses. The second section details the key features of the different legal entity types that can be used to set up new businesses.

C.1 Generic requirements for setting up a business

Setting up the legal structure of the business entity

There are four main entity types that are used in Australia to set up and run businesses — sole trader, partnership, company and trust. Some businesses use a combination of entity structures for different elements of the business.

Depending on the choice of structure, there may be a number of steps that must be undertaken before applying for an Australian Business Number (ABN) and other generic business and tax registrations.

- Sole trader — as there is no separate entity, there are no initial requirements before applying for an ABN.
- Partnership — there are no initial legal requirements to set up a partnership and the process can be commenced with the ABN process.
- Company — as a company is a separate legal entity, it must be created in the first instance. This involves an application and payment of the prescribed fees to ASIC to register the company. Companies are then allocated an Australian Company Number (ACN). While this needs to be done before other business registrations, there are streamlined processes for other registrations, such as an ABN and, if required, a business name.
- Trust — to create a trust, a trust deed needs to be drawn up. A trust deed may need to be stamped by the relevant state revenue office and duty may be payable. The trustee can then apply for an ABN and other registrations on behalf of the trust.

Further details on each of the entity types are discussed in section C.2.

Australian Business Numbers

Australian Business Numbers (ABNs) were introduced on 1 July 2000 as part of the suite of changes to the tax system associated with the introduction of the goods and services tax (GST). The ABN is a unique 11 digit number used to identify a business. It is publically available and can be accessed through the ABN Lookup website, which provides details for each ABN including the entity name, entity type and whether it is registered for GST.

The range of entities issued an ABN is broader than just actively trading businesses, and includes entities (companies and trusts) used for passive investment purposes and superannuation funds. Other entities that may be allocated an ABN include government departments and agencies, not-for-profit organisations and associations. As at June 2014, there were around 7.7 million entities with an ABN. This is around three times the number of active businesses estimated by the Commission (chapter 2).

Applying for an ABN

An ABN can be applied for either on a paper-based form or online. There is no charge when applying for an ABN. To complete the application for an ABN, the applicant will need to provide details such as:

- the legal name of the entity
- tax file number (TFN), if already issued
- Australian Company Number (ACN), if using a company structure
- business activities and locations
- contact details, including tax agent details
- any previously held ABNs.

The application process also includes a series of questions aimed at determining eligibility for an ABN. These act as a vetting process and need to be answered ‘correctly’ for an ABN to be issued. To be eligible, the applicant must have their business structure in place and be carrying on an enterprise, or have undertaken sufficient activities to commence an enterprise. (This does not apply to applicants that are companies, as these entities are automatically eligible for an ABN.)

Most online applications are successfully completed, and an ABN is issued immediately. Delays can occur for reasons such as failure to provide a tax file number (TFN), which is used as an identity check for individuals, or where the applicant has previously had an ABN.

There are a number of other, primarily tax related, business registrations that can be completed along with the ABN process, through the Australian Business Register website, including:

-
- GST, fuel tax credits and pay as you go (PAYG) withholding for the taxation of employees
 - AUSKey, which is used by businesses to login to online government services
 - business names
 - TFNs for entities other than individual sole traders.

Of these, registering a business name is the only registration that incurs a fee.

Business name registration

A business name is a name that a business trades under. It identifies the business to customers and provides a link to the ABN (this can be publically searched on the ABN Lookup website). A business name is not required if the business trades under the entity name, that is, the full name of the company or trust, a sole trader's first name and surname, or the names of all members of a partnership.

Business names are registered with ASIC. There are streamlined processes for registering a business name at the time of an ABN application. Otherwise, it can be undertaken at a later date through the ASIC Connect website (business names cannot be registered before an ABN is applied for). There is a fee charged for business name registrations of \$34 for one year or \$78 for three years.

The current national business name registration process commenced in 2012. Prior to this, business or trading name registrations were administered by the states, meaning a business had to individually register its trading name in each jurisdiction it traded in. At the commencement of the new system existing state registrations were migrated to the national register. The move to a national system was undertaken as part of the COAG *National Partnership Agreement to Deliver a Seamless National Economy*, which was agreed to in 2008 and included a range of business regulation reforms.

An important point to note about business name registration is that it does not confer any type of proprietary rights over the use of that name. To ensure exclusive use of a name, a business would need to register that name as a trademark with IP Australia.

Other regulatory requirements

A range of other requirements can apply at set-up — some of which are generic in terms of business activity, but only apply to businesses with certain characteristics. Employing staff is perhaps the most common trigger of additional regulatory requirements. Many businesses start small, with no employees, so the obligations that come with employing staff are associated with business expansion rather than set-up. For businesses employing staff at the outset, employment-related regulations can act a barrier to entry, especially if

the business expects to employ a significant number of staff at the commencement of operations.

Tax

Starting a business involves a range of new tax obligations and concessions, many of which require the business to register for the tax when commencing business. For most of these — GST, fuel tax credits, PAYG withholding — businesses can complete registrations in concert with their application for an ABN, as noted above. There are also more specialised registrations — such as the luxury car tax and wine equalisation tax — that are only required for specific business activities. A new business might also choose to voluntarily enter the PAYG instalment system. On-going businesses are generally required to make regular payments during the year towards their expected tax liability. This does not apply in the first income year of operation as there is no tax liability history for that business, but a business can elect to make nominated instalment payments.

If a business is to have employees there will be additional registrations and subsequent obligations required of the business, primarily the PAYG withholding requirements for remitting income tax amounts on behalf of employees to the ATO. If the business intends to provide fringe benefits to its employees it will also need to apply for this registration.

Payroll tax

While most of the tax registrations required by new businesses are for Commonwealth taxes administered by the ATO, a business will be liable for state/territory payroll tax if its total Australian wage bill exceeds the designated thresholds. The thresholds and tax rates vary by state/territory. Thresholds (on an annual total wage bill basis) range across jurisdictions from a low of \$550 000 (Victoria) to a high of \$1 850 000 (ACT), while the tax rate varies across jurisdictions from 4.75 per cent (Queensland) to 6.85 per cent (ACT). A business will need to separately register for payroll tax with the state revenue office in each jurisdiction where its wage bill exceeds the threshold.

Some harmonisation of payroll tax was achieved under the COAG Seamless National Economy reforms. This related to alignment of a range of legislative provisions other than thresholds and tax rates, such as the timing for lodgement of returns, as well as measures to increase administrative consistency and cooperation between state revenue offices.

Superannuation

Analogous to the requirement for employers to submit income tax payments on behalf of eligible staff, employers are required to make payments to the superannuation fund of their employees. There are some exemptions with super contributions not required for employees (over 18 years old) whose earnings are below \$450 dollars per month. Employees under 18 years must also work a minimum of 30 hours per week to be eligible.

Superannuation contributions of at least 9.5 per cent of an employee's ordinary time earnings must be paid to the superannuation fund on a quarterly basis by the specified cut-off dates.

Businesses are required to offer employees a choice of superannuation fund. Employees are provided with a *Standard choice form* — those that do not elect a fund have their contributions paid to a fund nominated by the employer.

Businesses with 19 or fewer employees can elect to use the Small Business Superannuation Clearing House, a free online superannuation payments service for small businesses that allows them to make all of their superannuation payments to the clearing house, which then distributes them to the employees' nominated superannuation funds.

While the issue of whether someone is an employee or a contractor is an important one in working out the tax and employer obligations for a business, even if an individual is considered a contractor for tax purposes, the business may still be liable to make superannuation contributions on their behalf. This additional liability arises where the contract is wholly or principally for the supply of labour.

Another issue is that while sole traders or members of a partnership are not employees and therefore not subject to superannuation guarantee obligations, there are provisions available for these business owners to make superannuation contributions if they wish.

Broader employment obligations

There is a range of additional obligations on businesses that employ staff. This may include:

- compliance with the relevant awards and employment contracts
- record keeping obligations, including the provision of pay slips
- provision of a safe workplace for staff and compliance with workplace health and safety regulations.

Non-regulatory processes that can be part of set-up

In addition to the regulatory requirements for setting up a new business, there are numerous other processes that new businesses undertake when setting up. Some of these are briefly listed below.

- *Professional services.* Setting up a business may involve the engagement of service providers such as lawyers and accounts/tax agents. While not strictly required for simple business and tax affairs, these services are commonly used, particularly where more complex business structures are employed.

-
- *Domain names.* As noted above, registering a business name does not provide full protection for that name (a business would need to register a trade mark to provide additional protections for the name). Another common step would be to register the business name, or variations thereof, as internet domain names.
 - *Banking and finance.* A new business will likely require a range of banking services. At the most basic this would involve transaction accounts, although separate accounts are not strictly required for those operating as sole traders. New businesses may also require various payment facilities (such as card terminals) and finance.
 - *Insurance.* There are a range of insurances that a business may obtain, such as public liability cover and insurance of business assets. Insurances such as these may not be strictly required in a regulatory sense. However, some insurance, such as workers compensation or various indemnity insurances may be a regulatory requirement of employing staff, or being granted a licence or approval to operate.

C.2 Different business ownership structures

There are four basic forms of business structure — sole traders, partnerships, companies and trusts. There are also a number of other, less common, entity structures.

Sole traders

A sole trader is the simplest business structure, with few legal and tax formalities. It is the easiest and least expensive structure to create. Accordingly, it is a very common choice of structure for businesses across most industry sectors, particularly for businesses at the micro or small end of the scale.

To operate as a sole trader, an individual applies for registrations, such as for an Australian Business Number (ABN), goods and services tax (GST) and fuel tax credits in their own name (although they may also register a business name) and uses their personal tax file number (TFN). Business income, after claiming allowable deductions, is included in an individual's personal tax return, along with any other income, including a salary or wages, and assessed for income tax purposes using the personal income tax rates. Notably, if the business makes a loss, this can be offset against other income, subject to some restrictions.

A sole trader cannot be an employee of their business, that is they cannot pay themselves a wage in the traditional sense. Accordingly, they are not subject to employer obligations, such as payment of superannuation or workers compensation premiums, in respect of themselves, although they may choose to mimic these requirements.

Partnerships

A partnership is where two or more people (or other entities, such as companies) carry on a business as co-owners. A partnership is relatively inexpensive to set up and operate. A normal partnership is not limited in the number of members and there is no registration required. A partnership may have a formal partnership agreement, but it is not essential. A partnership may be implied by a court.

Because they are relatively inexpensive to set up, they are commonly used for smaller businesses, often for family businesses. At the larger end of the scale, a common use of partnerships is for professional services firms.

To operate as a partnership, the partners apply for registrations such as an ABN and GST in the partnership's name. The partnership also needs a separate TFN, which can be applied for in the ABN process.

A partnership operates as a 'flow-through' structure for tax purposes, similar to a sole trader. Income and losses are shared among the partners in the prescribed shares. Each partner's share of the income is included in their personal tax return. Again, as for a sole trader, a partner's share of losses can be potentially offset against other income.

Partners are also not employees of the business, so any monetary drawings from the business by partners are not considered as deductible wages for tax purposes.

An important feature of a standard partnership is that each partner is responsible for all the liabilities of the partnership. However, there are some specialised forms of partnership that can be used to vary this.

A limited partnership is a more flexible form of partnership that allows for two types of partners. General partners operate the business and have unlimited liability, as per the partners of a standard partnership. Limited partners are passive investors in a business, whose liability is limited to the amount invested in the partnership. Limited partnerships are regulated by the states and are required to be registered with the relevant state authorities.

A further variation is an incorporated limited partnership. This is a separate legal entity providing further liability protections for partners. It is also administered and registered at the state level. Incorporated limited partnerships are restricted to use for venture capital investment.⁵

⁵ In addition to being registered under state legislation, incorporated limited partnerships for venture capital purposes need to be registered under the *Venture Capital Act 2002* (Cth) in order to access concessional tax treatment.

Companies

An incorporated company, regulated under the *Corporations Act 2001* (Cth) by the Australian Securities and Investments Commission (ASIC), is a distinct legal entity, meaning that it can enter into contracts, including purchasing property, and be involved in legal action in its own right. This is in contrast to a sole trader or partnership, where there is no legal distinction between the business and owners as individuals.

A company is owned by shareholders and administered by directors. Shareholders are the owners of the company and their liability in this capacity is typically limited. Operation of the company is the responsibility of the directors (and management). Directors may also be shareholders — for example, a proprietary company could have a single director and shareholder — or be professional directors appointed to a board. Directors are required to act in the interests of the company and have a range of fiduciary duties, including ensuring that the company is solvent.

Compared to sole traders or partnerships, a company is a relatively complex business structure, with more regulatory and administrative costs due to additional reporting requirements to a separate regulator. There are also prescribed annual fees that are paid to ASIC to register a company.

There are different types of companies. The primary distinction is between proprietary and public companies. Proprietary, or private, companies have lower obligations in terms of the number of directors required (a minimum of one), but are also limited in the number of shareholders allowed (limited to fifty). On the other hand, public companies require more directors, but are less restricted with respect to shareholders and raising equity.

Companies can also vary in terms of the liability of members (the shareholders). For companies limited by shares, when a company is wound up the liability of shareholders is limited to any unpaid amounts (often there are none) owing on their shares. For companies limited by guarantee, members do not need to contribute any capital while the company is operating, but are liable for the amount they have agreed to contribute, as per the company's memorandum of association, if the company is wound up. A company might also be limited by both shares and guarantee. A company can also be registered as an unlimited company, where there are no limits on the liability of members. This is essentially an incorporated partnership. Finally, there are no liability companies, where there are no legal obligations on shareholders to pay calls on unpaid amounts still owing on shares. This option is limited to mining companies only.

Most companies are proprietary companies limited by shares, accounting for almost 99 per cent of the 2.1 million currently registered companies.⁶ Public companies, including those that are listed on stock exchanges, are generally larger than private companies, but are relatively few in number. There are around 6600 public companies limited by shares, of

⁶ Not all currently registered companies are actively trading businesses.

which 28 per cent are listed companies. There are almost 15 000 public companies limited by guarantee (these are mostly not-for-profit organisations). The other types of companies are even less common. There are just over 200 companies limited by both shares and guarantee, and just over 300 companies (predominately proprietary) with unlimited liability. No liability companies are also relatively uncommon, comprising just 140 registered companies, as at 1 April 2015.

To commence business as a company, the company must first be registered with ASIC. This can be achieved by lodging a form with ASIC, or through a range of third party service providers. Upon registration, the company is issued an Australian Company Number (ACN). The company can then apply for an ABN and TFN, and register for GST if required.

A company acts as an accumulative structure for tax purposes. It submits its own tax return and net income is taxed at the flat corporate tax rate of 30 per cent. Profits can then either be retained within the company and used for company purposes or distributed to shareholders as a dividend. Dividends are included as income on a shareholder's individual tax return, along with a credit for the company tax already paid. Losses, however, cannot be distributed to shareholders, but are retained in the company and offset against future income. Another difference in the taxation of companies is that companies are not eligible for the 50 per cent discount on capital gains tax for assets.⁷

Trusts

A trust is an obligation imposed on a person or entity (the trustee) to hold property or assets for the benefit of others (the beneficiaries). The operation of the trust is set out in a trust deed. Setting up a trust can be relatively complex and expensive, as a formal deed is required. There are also formal yearly administrative obligations on the trustee.

There are various types of trusts and they have a long standing history of use in common law countries, having typically been used as a passive vehicle for holding assets. Their use for active trading purposes is a more recent phenomena. The main distinction in trusts is between discretionary and fixed trusts. With a discretionary trust, the trustee can distribute income between beneficiaries in an unrestricted manner. In a fixed trust, each beneficiary is entitled to a fixed share of the distributed income. In some fixed trusts, such as a unit trust, beneficiaries are allocated units in a trust which can potentially be traded in a similar manner to shares. The relative composition of the different type of trusts is illustrated by

⁷ The discount, subject to eligibility (such as holding an asset for at least 12 months), is available for sole traders (the same as for individuals in general) and for the flow-through entities of partnerships and trusts. Another point, is that the ineligibility for the discount is for assets sold by the company as an entity. Where capital gains are accrued in the corporate structure and the shares of the company are subsequently sold, the shareholder may be eligible for the discount.

the number of trusts lodging tax returns for 2012-13 (table C.1). Discretionary trusts used for trading accounted for around a third of all trusts that submitted tax returns.

Table C.1 Number of trusts by type^a
2012-13

	<i>Number</i>
Discretionary trust-main source from investment	315 418
Discretionary trust-main source from service-management	39 521
Discretionary trust-main source from trading	254 511
Cash management unit trust	653
Hybrid trust	9 275
Fixed unit trust	86 931
Other fixed trust	16 919
Public unit trust-listed	367
Public unit trust-unlisted	4 536
Deceased estate	49 220
Other	2 756
Total number of Trusts	780 105

^a Based on those trusts that submitted a tax return for 2012-13.

Source: ATO (2015b)

To commence business through a trust, once the trust is created by the trust deed, the trustee must apply for a TFN and ABN for the trust. Other registrations, such as GST can also be undertaken if required.

Trusts act as flow-through structures for tax purposes. Net income from the trust is passed through to beneficiaries. The beneficiaries then declare their trust income along with any other personal income on their individual tax return. Where all net income is distributed to Australian resident adults, there is no tax liability. If net trust income is retained in the trust, it is taxed at the top marginal tax rate. Also, the trust will be liable to pay tax on distributions made to either non-residents or minors. While a trust distributes net income, losses cannot be distributed to beneficiaries. There are also rules on the treatment of losses within the trust that determine if they can be offset against future income.

One of the key features of discretionary trusts is that the trustee can determine the proportion of income that is distributed to each of the beneficiaries. This presents the opportunity to distribute income to those beneficiaries with less income from other sources and so minimise the aggregate level of income tax paid by the beneficiaries as a group. Similarly, streaming rules permit differences in the allocation of income and capital gains (meaning that capital gains could be allocated to those beneficiaries that can offset them against other capital losses they have incurred).

Other entity structures

There are other entity structures, such as cooperatives and associations, that can also be used to carry on a business, or business-like activities. A business activity might also be carried on as a ‘joint venture’, although this is not strictly a separate type of entity structure.

Cooperatives

As with a company, a cooperative is an incorporated structure that is a distinct legal entity. It is administered by directors who have similar responsibilities to those of company directors. However, it is operated for a slightly different purpose. While a company is operated to provide a financial return to shareholders, a cooperative is operated to benefit its members, usually through the provision of goods or services.

To form a cooperative, there must be a minimum of five members. The purpose and way in which a cooperative operates is set out in its rules. This includes rules for membership, which may require contribution of share capital or the payment of subscription fees. A key principle of cooperatives is democratic member control, all members have equal voting rights. A cooperative can set up as either distributing or non-distributing. Distributing cooperatives can distribute profits or surplus funds to members. Non-distributing cooperatives, which cannot distribute profits, are likely choices for community-type organisations. Members’ liability is limited to either share capital or paid/owed subscription fees.

Cooperatives are registered and regulated by the states and territories. A Cooperatives National Law is being progressively adopted by the jurisdictions to provide for uniform regulation of cooperatives across jurisdictions (NSW Fair Trading 2015b).

Cooperatives for business purposes are relatively commonly used in agriculture, often as a means of providing processing and marketing services to members. Cooperatives are a relatively infrequent structural form, compared to the main business structures noted above. For example, there are approximately 640 cooperatives in New South Wales (NSW Fair Trading 2015a), not all of which are business-related, out of around 700 000 total businesses in that state. While relatively uncommon, cooperatives can be economically significant businesses. Nationally, the largest cooperative is the Western Australian-based grain handler, Co-operative Bulk Handling Ltd, which recorded sales of \$3.9 billion in 2014. Other large cooperatives include Namoi Cotton, Norco (a dairy processor) and Dairy Farmers.

Associations

Associations are not-for-profit organisations that are run for the benefit of members or the broader community. They can be run as an unincorporated entity, or they can be

incorporated, under state regulations, which allows the entity to enter contracts in its own right, including to engage employees, and provides additional protections for members.

State-based incorporation as an association is an alternative to incorporation under the *Corporations Act 2001* (Cth) typically suited to smaller not-for-profit organisations that only operate in one state.

Joint ventures

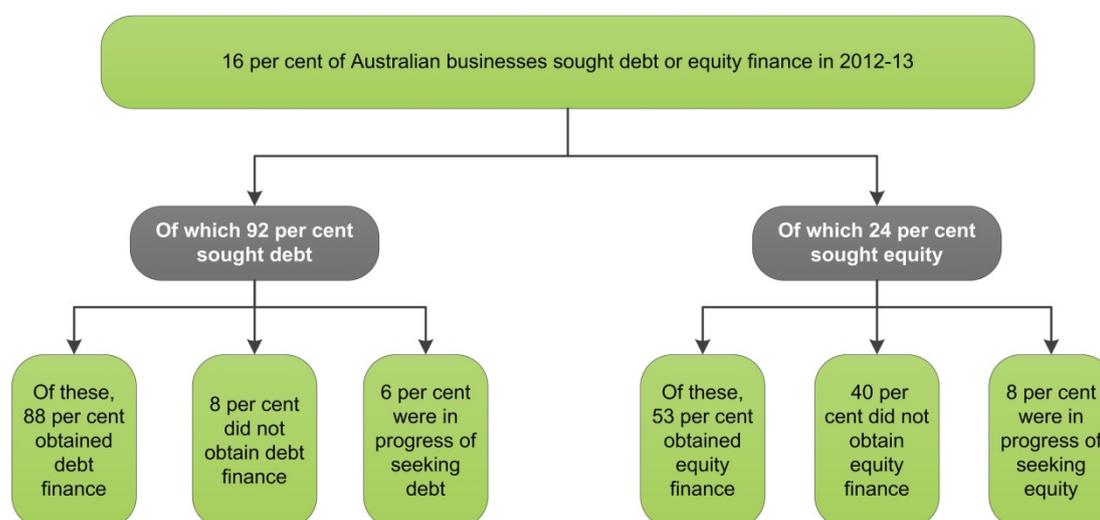
While not strictly a form of business structure in its own right, business activities are often carried on by multiple parties who come together to undertake a particular enterprise as a joint venture for mutual gain. The legal or financial form of a joint venture is not fixed and could be undertaken in a number of ways. For example, a joint venture may be just a contractual agreement between a number of parties. Alternatively, it could involve the creation of a partnership, or a new incorporated entity. The scope for the use of joint ventures is broad — examples include instances where land or resource owners partner with firms to provide capital or labour inputs to develop that resource such as mining, share farming and residential or commercial property development. Joint ventures can also play a role in foreign investment.

D Business finance and foreign investment data

This appendix provides a statistical overview of business lending, venture capital, private equity and foreign investment in Australia. It provides additional context around the Commission's analysis of debt finance (chapter 7), equity finance (chapter 6) and foreign investment (chapter 4).

In any given year, only a minority of Australian businesses seek external finance. In 2012-13, only 16 per cent sought debt or equity finance. Businesses more commonly seek (and are more likely to obtain) debt financing over equity finance (figure D.1).

Figure D.1 **Proportion of businesses seeking and obtaining finance^a**
2012-13



^a As some businesses sought both debt and equity during the reference year, totals may exceed 100 per cent.

Source: ABS (2014h)

The most common reason why businesses seek debt or equity finance is to maintain cash flow and liquidity, followed by the replacement of equipment and to ensure the survival of the business (figure D.2).

Figure D.2 Reasons why businesses seek debt or equity
2012-13



Source: ABS (2014h)

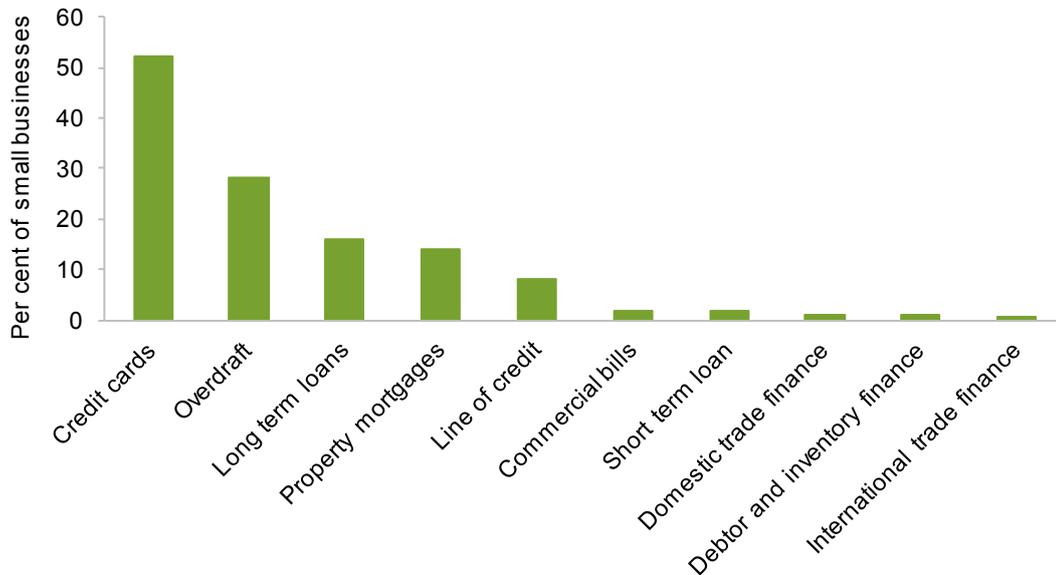
The remainder of this appendix summarises data available on three sources of finance that new businesses may use: debt finance, venture capital and foreign investment.

D.1 Debt finance

The primary dataset on business lending is maintained by the Reserve Bank of Australia (RBA), which collects and publishes information itself and publishes information collected by the Australian Prudential Regulation Authority (APRA). Other sources of data on business lending include the Australian Bureau of Statistics (ABS) and survey data collected by industry and peak bodies.

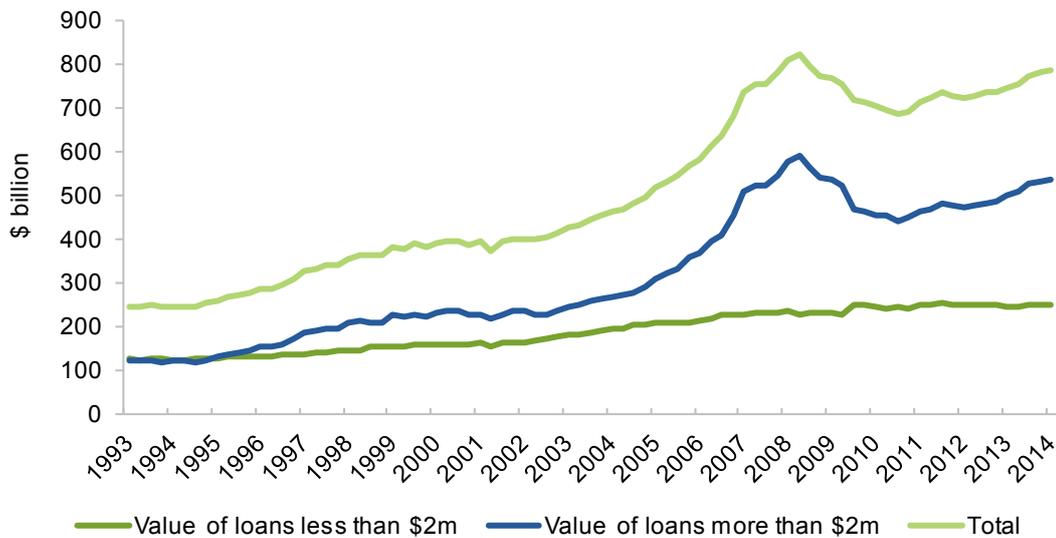
The quantum of lending

Figure D.3 **The most common sources of debt for small businesses are credit cards, overdrafts and long term loans**
2013



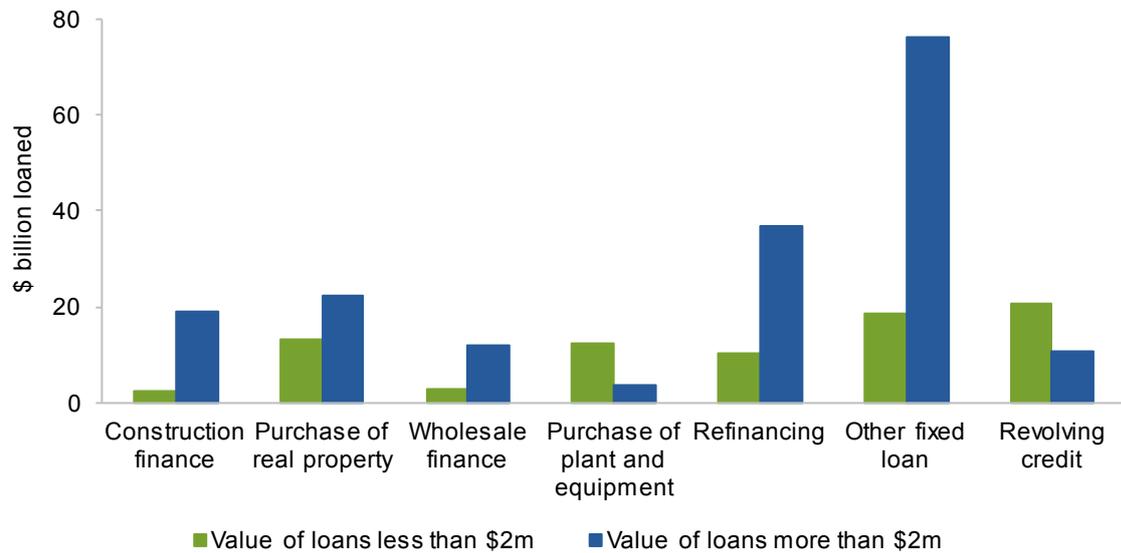
Source: ABA (2014)

Figure D.4 **With the exception of the GFC years, real bank lending to businesses has generally grown steadily**
2014 dollars



Source: RBA (2015c)

Figure D.5 Small loans tend to be used for purchases of property, plant or equipment while larger loans are used for refinancing or other purposes
2014

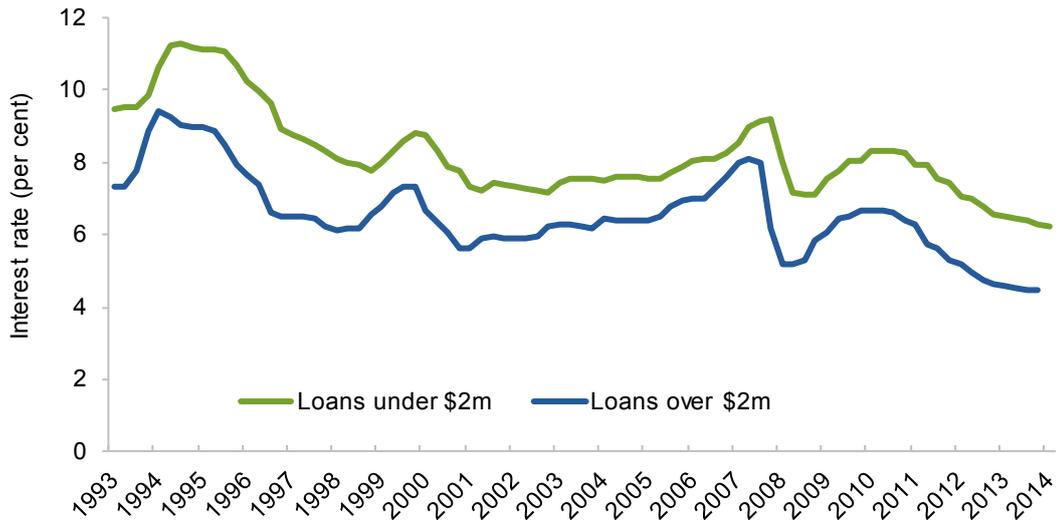


Source: RBA (2015c)

The price of lending

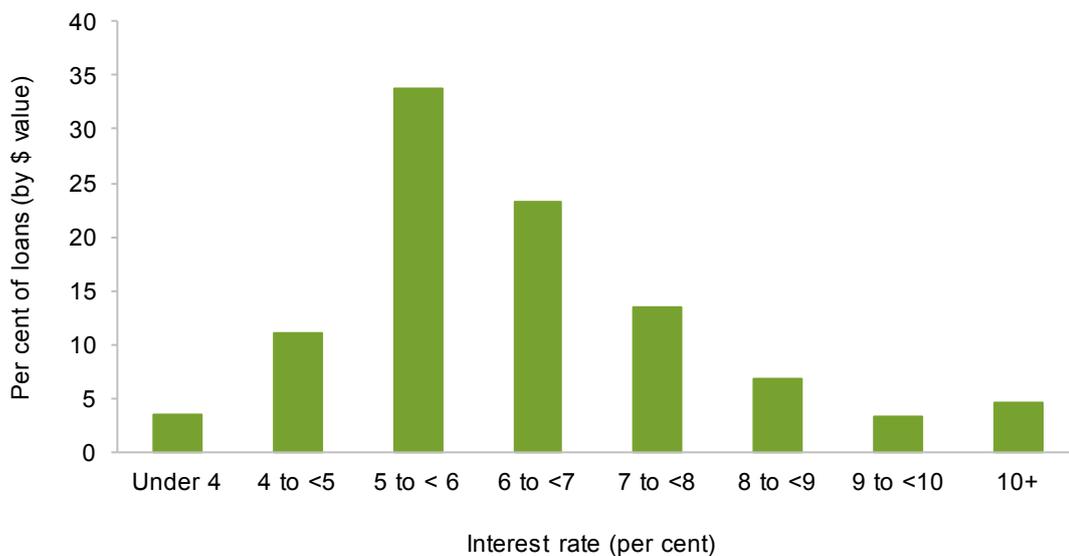
Figure D.6 **Consistent with the broader market, interest rates on outstanding business debt have trended downwards over the past two decades**

Weighted average, not including credit cards



Source: RBA (2015c)

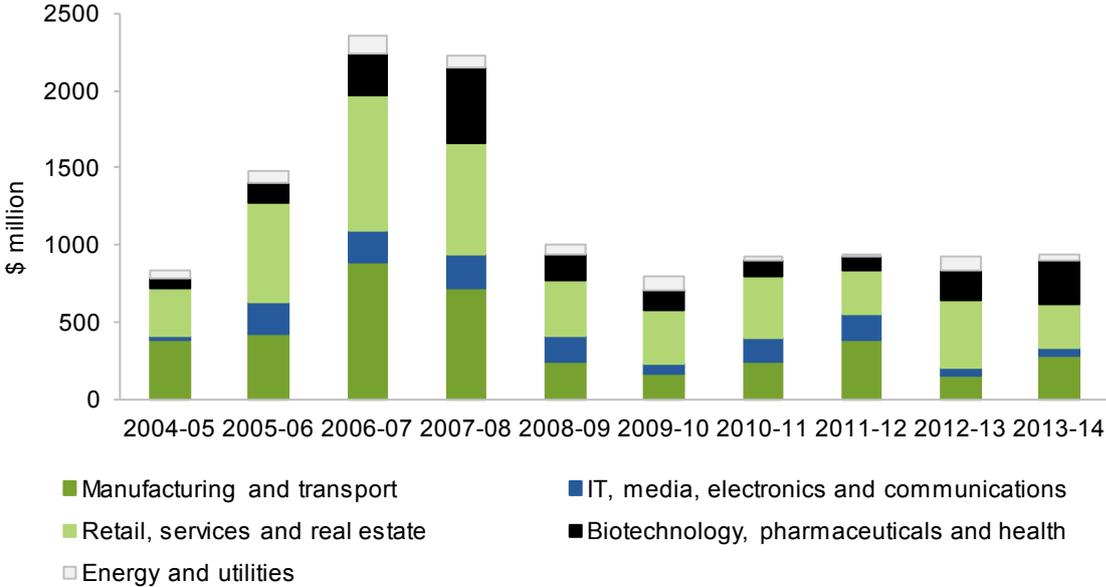
Figure D.7 **Most variable loans to businesses have interest rates below seven per cent per annum**



Source: RBA (2015c)

D.2 Data on venture capital and private equity

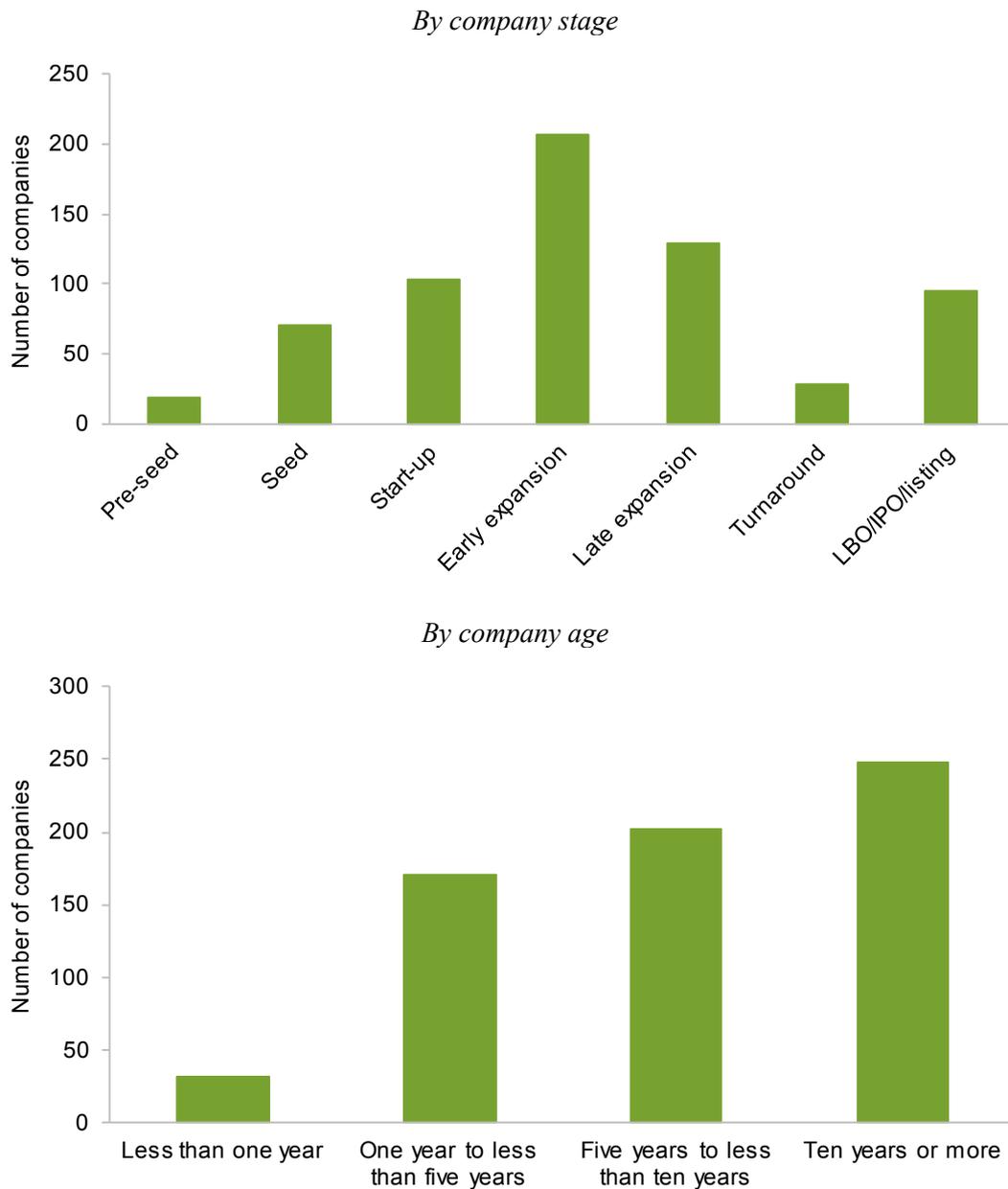
Figure D.8 **Most funding has been directed to manufacturing and transport, and the retail, services and real estate industries**



Source: ABS (2015a)

Figure D.9 Most companies receiving venture capital and private equity are not 'new'

Number of companies receiving VC or private equity, 2013-14



^a LBO stands for leveraged buyout. IPO stands for initial public offering.

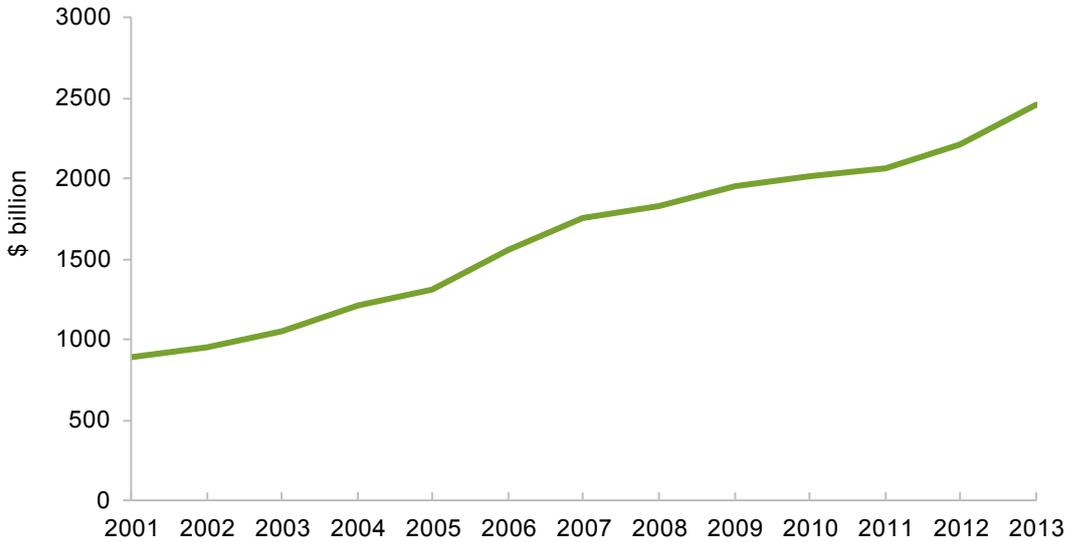
Source: ABS (2015a)

D.3 Data on foreign investment into Australia

The primary data source relating to foreign investment into Australia is maintained by the ABS (cat no. 5352.0).

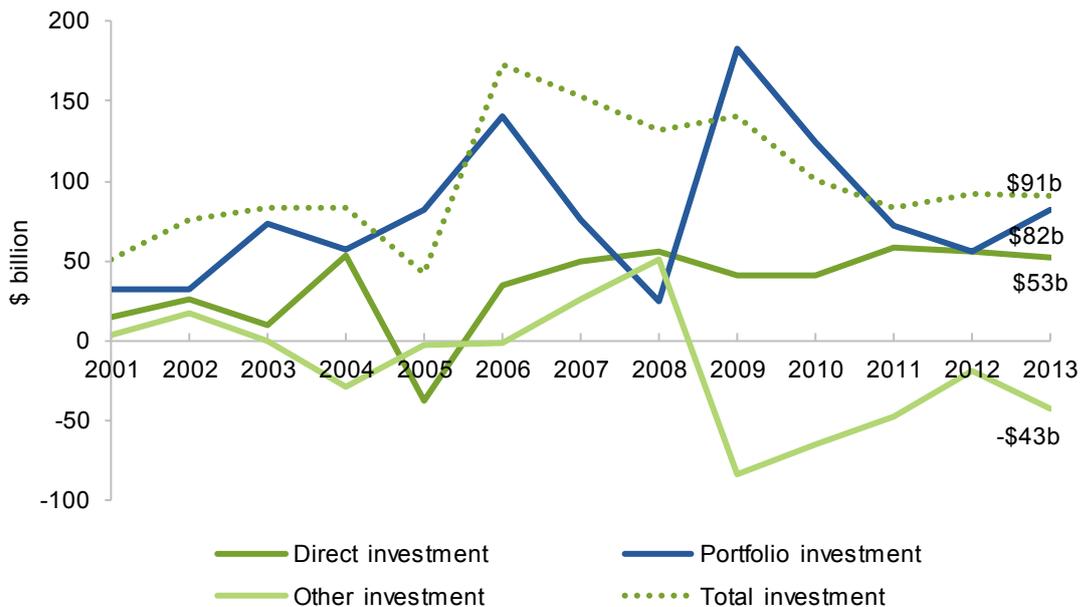
Quantity of foreign investment over time

Figure D.10 **Total stock of foreign investment in Australia has increased consistently since 2001**



Source: ABS (2014g)

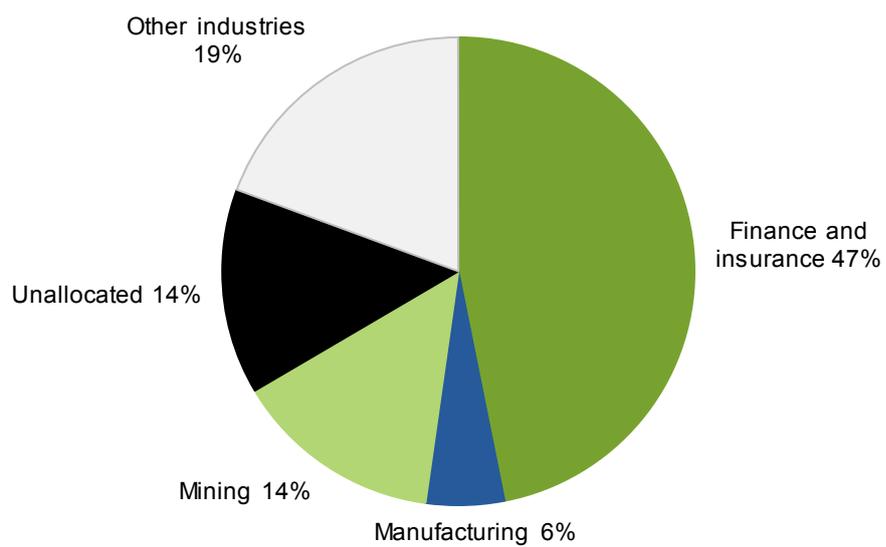
Figure D.11 **The flow of foreign investment has fluctuated**



Source: ABS (2014g)

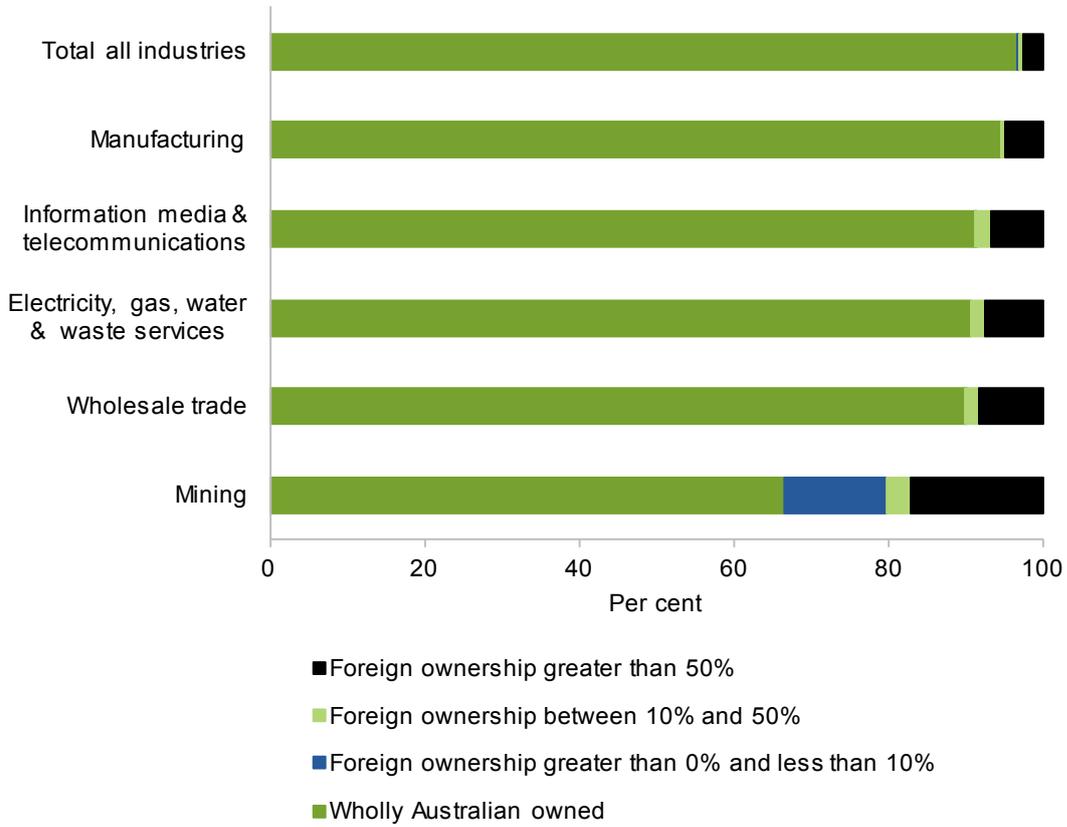
Direction of foreign investment

Figure D.12 **The finance and insurance industry attracts the largest share of foreign investment**
2013



Source: DFAT (2014)

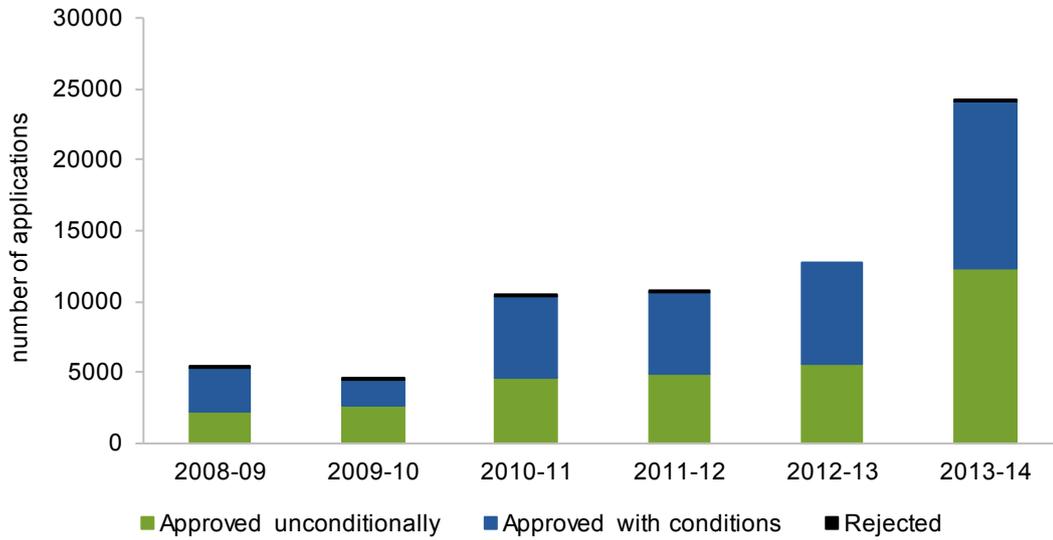
Figure D.13 **Foreign ownership varies by industry, although most businesses are Australian owned**
2013



Source: DFAT (2014)

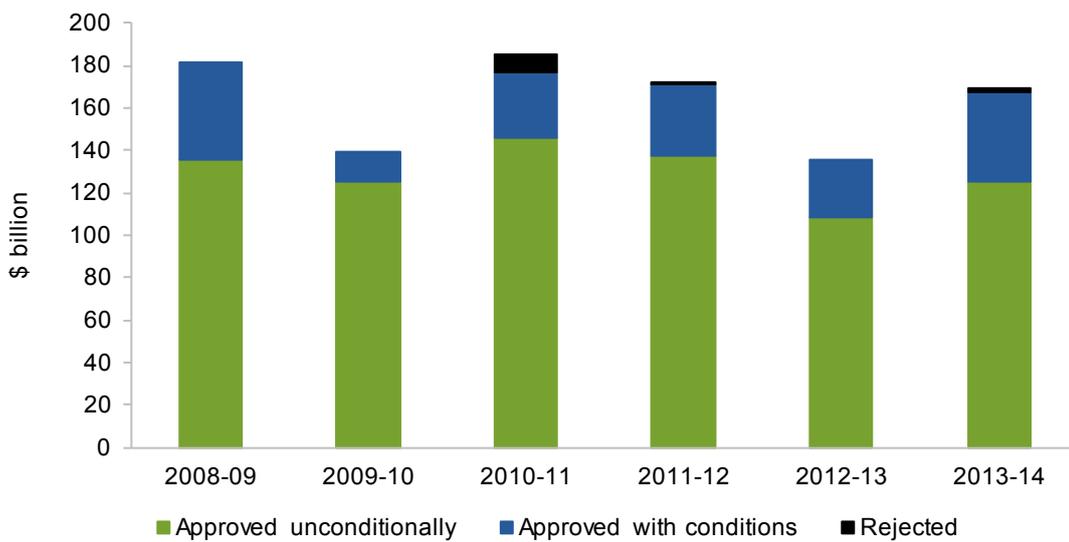
Proportion of foreign investment screened by FIRB over time

Figure D.14 Very few applications are rejected by FIRB



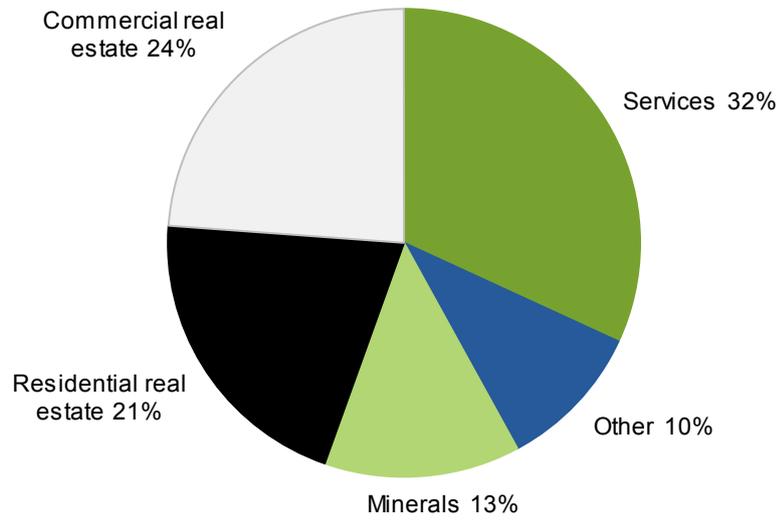
Source: FIRB (2015)

Figure D.15 And the dollar value of rejected applications is low



Source: FIRB (2015)

Figure D.16 **By value, most FIRB approvals are for the real estate and services industries**
2013-14



Source FIRB (2015)

E Government support for business set-up

Government support that is relevant to business set-up can include the provision of: information and advice; grants and subsidies; tax concessions; mentoring, skills and training; concessional loans; collaborative and networking mechanisms including office space; and trade missions and awards. Much of this support is provided directly by government agencies to individuals and businesses, or by way of other agents such as not-for-profit organisations (including industry associations) and other businesses. Universities also have a role in supporting business set-up through their business incubators and entrepreneurship education and training programs. Significantly, much government support is most relevant — and intentionally so — to the early or set-up stage of a business, but may also be available to established businesses.

E.1 Information and advice

The most common form of government support is the provision of information and advice (table E.1). Information and advice is often delivered online, but it may also be delivered through a government agency, a call centre, a business mentor, an industry association, or a business incubator (including business enterprise centres).

Information and advice may be: of a ‘sign posting nature’ — directing individuals and businesses to superior sources of information and advice; general in scope; or customised to a particular business or topic (such as relating to government regulation and assistance programs, or relating to commercial matters such as accessing finance, setting up a digital business, or exporting).

In providing information and advice, governments primarily seek to address information problems, particularly the costs for some individuals or businesses in acquiring information and advice. For example, the Australian Government stated that its Single Business Service ‘recognises that in the past, businesses have struggled to access government services and navigate the wealth of government information available to find what they need or who to talk to’ (Australian Government 2015d). The NSW Small Business Commissioner stated that its Small Biz Connect Program is intended to address the failure by small businesses to obtain information and advice crucial to making informed business decisions:

There exists an information asymmetry in which governments have vast amounts of information they can provide, but small business owners are time-poor managers dealing with an information overload and with no clear understanding of what they need to know, what

information is available, or who might possess it. ... These problems are particularly acute for small businesses, since obtaining information on government processes and business practices represent a disproportionate drain on the resources of small businesses relative to larger businesses. (sub. DR59, p. 5)

Table E.1 Australian Government assistance — information and advice

<i>Measure or program (Agency)</i>	<i>Description</i>	<i>Objective</i>
Austrade	Provides information and advice to assist Australian exporters and education providers on how to do business (including setting up a business) in international markets.	To reduce the time, cost and risk for business associated with exporting.
Australian Business Licence and Information Service (Department of Industry & Science) ^a	Provides online information about government licences, permits, approvals, registrations, codes of practice, standards and guidelines that businesses need to know to meet their compliance responsibilities.	Not stated.
Australian Small Business Advisory Services programme (AusIndustry)	Provides, through not-for-profit organisations, advice to small businesses on business management skills, financial management skills, business planning, mentoring for business and general business advice.	To maximise the growth potential, prosperity and sustainability of small businesses through enhanced access to information and advice on issues important to establishing, sustaining and/or growing a small business.
Business Development and Assistance Program (Indigenous Business Australia)	Provides, among other things, access to business advice, like marketing and business planning for start-ups and businesses wanting to grow.	To promote and encourage Aboriginal and Torres Strait Islander self-management and economic self-sufficiency. ^b
Digital Business website (Department of Communications)	Provides a resource for small businesses and community organisations, or individuals thinking about setting up a business or community organisation, that want to learn more about how to develop an online presence or how an online presence may benefit them.	To maximise the benefits of the digital economy for all Australians.
Entrepreneurs Infrastructure Programme (AusIndustry)	Offers, through a national network of more than 100 private sector advisers, support to businesses through three elements: Business Management; Research Connections; and Accelerating Commercialisation.	To promote business competitiveness and productivity at the firm level.
Single Business Service (AusIndustry)	Consists of a consolidated online service, a contact centre and a face-to-face network to link businesses with relevant government programs and services. It includes insights into business improvement strategies and information on planning, starting and running a business as well as referrals to assistance programs.	To help business access government services and navigate government information.

(continued next page)

Table E.1 (continued)

<i>Measure or program (Agency)</i>	<i>Description</i>	<i>Objective</i>
Small Business Hub (ASIC)	Consists of an online resource that provides information for small businesses such as about their legal obligations, starting and closing a business, and what happens when a company is deregistered.	Not stated.
Small Business Support Line (AusIndustry)	Offers small businesses a consolidated online presence, a contact centre and a face-to-face network to link interested businesses with relevant government programs, information and advice.	To streamline access to essential information and government services for businesses.

^a Delivered as a partnership between the Australian Government, and state and territory governments. ^b Objective of Indigenous Business Australia, not the program.

Source: ABLIS (nd); ASIC (2015d); Australian Government (2015b, 2015d); ATC (2015); Department of Communications (2015); IBA (2014)

E.2 Mentoring, skills and training

Another common type of government assistance relevant to business set-up — often provided together with information and advice — is mentoring, skills and training (table E.2). Assistance may be delivered through the education system (schools and universities), business mentors, or a business incubator. It may also be targeted to particular groups within the community (for example, Indigenous people) or to business types (for example, small businesses).

The main rationale for providing this type of assistance is to address information problems — such as the costs for individuals or businesses acquiring mentoring, skills and training. Another rationale is to address perceived deficiencies in the level of skills and training that individuals have at the set-up stage of a business that may contribute to business failure.

Governments may also provide some assistance through entrepreneurship education programs in universities (section E.5).

Table E.2 Government assistance through mentoring, skills and training

<i>Measure or program</i>	<i>Description</i>	<i>Objective</i>
Entrepreneurs Infrastructure Programme — Business Management (Australian Government)	Supply chain facilitation services offer businesses practical assistance to connect with and supply into project opportunities and new markets.	To support individual small and medium businesses build capability and facilitate greater connectivity within the supply chain.
Medical Research Commercialisation Fund (NSW, Vic, Qld, WA and SA Governments)	Offers mentoring to individuals interested in setting up or developing a small business around medical research.	To support the development and commercialisation of early stage medical technologies. ^b
Startup Queensland (Qld Government)	Delivers entrepreneurship training (along with practical information and networking opportunities) to Queensland's start-up community.	To help build capability within the Queensland start-up community.
Entrepreneurial Pathways Program ^a (Tas Government)	Provides mentoring, education and training on the pathway from ideas to market for potential start-ups.	Not stated.
Canberra Business Point (ACT Government)	Provides a gateway to practical advice and support for existing businesses and those intending to start-up a business in Canberra. Provides workshops, mentoring programs, one-on-one consultation, 'master' classes, targeted clinics and networking events.	To build strong foundations and encourage innovation for Canberra businesses.

^a Under development. ^b One of the program benefits.

Source: Australian Government (2015f); CBP (nd); DSITIA (2015); MRCF (2015); Tasmanian Government (sub. 18)

E.3 Business incubators

The general process of business 'incubation' has been described as follows:

... a prospective tenant is interviewed for their suitability for business incubation and they move into an office or other space inside the incubator from which they operate their business. The business incubator provides assistance in the form of office service, management advice, mentoring, networking and general business assistance. The incubator may also be able to provide funding assistance to grow the venture. After a period of time ... the business graduates from the incubator into the surrounding business economy. ... And as one business graduates another new business take their space and thus the cycle begins again. (Kemp 2013, p. 28)

The Commission uses the term 'business incubator' in a broad sense. It notes, however, that some commentators (ATP Innovations 2015; Hub Australia 2014b; Ruehl 2013; Treadgold 2014) distinguish 'business incubators' from 'accelerators' and 'hubs'. In these

articles, *business incubators* are seen as providing services that help businesses start up ‘from scratch’. Services include physical office space, information and advice, mentoring, and skills and training. They tend to provide long-term programs. *Accelerators* provide similar services to that of incubators, but focus on businesses that are past the very early start up stage. They are geared towards ensuring the business is able to compete and grow. They may provide seed funding in exchange for equity in the business. They tend to provide short term programs of 3 to 6 months. *Hubs* are largely physical locations where new businesses are able to share office space and facilities. As in incubators and accelerators, they may also offer other services such as information and advice.

Today’s business incubators in Australia comprise a mix of organisations, mostly not-for-profit organisations, offering a diversity of services (box E.1). Services may include: office accommodation; office facilities such as telephone answering, facsimile and photocopiers, computers, internet access, and the use of conference facilities; business and management services such as bookkeeping and accounting, entrepreneurial training courses, advice and assistance with business planning, and mentoring; financial assistance and capital raising; and advice on obtaining government assistance.

Box E.1 Business incubators in Australia

Most business incubators in Australia are not-for-profit organisations (such as ‘business enterprise centres’) that have been previously supported by, or at least have strong affiliations with governments and universities (BIIA, pers. comm 4 May 2015; Kemp 2013, pp. 32–33; Schaper and Lewer 2009, p. 42).⁸ Business Innovation and Incubation Australia has registered 44 not-for-profit business incubators of which about 11 are business enterprise centres. The main sources of funding of these incubators are fee for service, although governments continue to support them through property or peppercorn rent agreements as well as providing opportunities to tender for various business development programs. There may also be co-funding of these not-for-profit business incubators from the private sector and universities.

In recent years, business incubators have emerged in universities (section E.5) and in the private sector (for example, Kemp 2013, pp. 32–33). Although it is difficult to accurately gauge the number of those in the private sector, *The Deal Start-up Guide* (Macdoch Ventures 2015) lists around 28 private business ‘incubators and accelerators’ and 55 private ‘co-working spaces’ mainly in the capital cities, particularly Sydney and Melbourne. While some on the list offer funding in return for equity in the new business, most offer support through mentors, office space and facilities, workshops and access to networks. With private sector incubators, the ‘assisting’ business appears to benefit from providing services to the start-up through the acquisition of equity (for example) and the capturing of benefits (including positive spillovers) for their own business such as rental income and spillovers from collaboration, networking and physical co-location.

⁸ This is consistent with evidence from North America that show that about 93 per cent of business incubators there are not-for profit organisations, with the remaining being for profit entities (Kuppers 2015).

In the past, there was significant Australian government involvement in this area (Kemp 2013; Schaper and Lewer 2009). The first business incubators appeared in Australia in the 1980s and were funded by state and territory governments. The Australian Government then became involved in 1991 with the introduction of its Business Incubator Scheme, which supported the development of community-based, not-for-profit business incubators. This program was replaced in 1999 by the Building IT Strengths (BITS) Incubator Program, which sought to promote information and communications technology start-ups through technology business incubators. Following the closure of that program in 2008, government involvement in business incubators has subsided. The Australian Government also had a ‘Building Entrepreneurship in Small Business’ program from 2005 to 2012 to provide incubation services to small businesses.

Some business incubators — including those established by or affiliated with universities — continue to be assisted by government (table E.3). (University business incubators are considered later in section E.5.)

Table E.3 Government assistance through business incubators^a

<i>Measure or program</i>	<i>Description</i>	<i>Objective</i>
Business Enterprise Centre Darwin (Australian and NT Governments)	Provides free business training, advice and referrals to providers of practical advice.	To foster the establishment and development of successful new businesses in the Northern Territory.
Young Entrepreneur Spark Program ^b (SA Government)	Supports first time entrepreneurs to start-up a new business through cross-sector and cross-generational collaboration. Runs for 4 months and gives participants full-time access to the Adelaide Business Hub, a mentor and community network of business leaders, and a platform to promote and launch their ideas.	To accelerate growth, facilitate strategic alliances and encourage information dissemination and technology transfer with other organisations.
Adelaide Business Hub (SA Government/City of Port Adelaide Enfield)	Offers three key services: one on one business consulting support, nationally accredited business training targeting small business, and the Todd Street Business Incubator and a Co-Working Hub that provides communal business space serviced by wifi, professional facilities and mentoring support.	To ensure strong and effective linkages exist between the community, education and training providers and local employers. ^c
Tasmanian Technopark (Tas Government)	Provides assistance to start-up and existing businesses to accelerate growth, facilitate strategic alliances, and encourage information dissemination and technology transfer with other organisations. It also offers accommodation options to suit a range of businesses — from complete, self-contained, client-owned buildings to leased accommodation including a business incubator.	To encourage growth in technology and innovation-based industries in Tasmania by fostering a culture of innovation and helping tenants to commercialise innovative products and services.

^a There is also government assistance given to university business incubators — see table E.7. ^b In partnership with Hub Adelaide. ^c No stated objective as such, part of the City of Port Adelaide Enfield objective for business support.

Source: Australian Government (2015b); BECNT (2015); City of Port Adelaide Enfield (2015); (Tasmanian) Department of State Growth (2014); Hub Australia (2014a)

Government assistance through business incubators rests on a mixture of rationales. It is not just about promoting entrepreneurial and innovative activity per se, but also about addressing market failures (information problems and beneficial spillovers), promoting industry development and employment, and promoting small businesses (including addressing concerns about failure rates). For example, the stated objective of the Australian Government's previous BITS Incubator Program was to make a 'significant contribution to the national innovation system by':

- identifying and supporting high potential ICT [information, communication and technology] start-ups;
- facilitating growth in employment, revenue and exports for the ICT start-ups;
- assisting these ICT start-ups to secure financial and other support from third party sources (including venture capital firms, private investors, other technology firms, universities and government);
- establishing mutually beneficial linkages with other elements of the Australian innovation system; and
- adopting strategies to achieve ongoing financial self-reliance without further Australian Government support beyond the period of the program extension. (Australian Government nd)

In relation to its Building Entrepreneurship in Small Business, the Australian Government said that:

[Small business] incubators are known to reduce the failure rate of new start-up businesses. In doing so they create jobs and assist local economic development. (AusIndustry 2003, cited in Kemp 2013, p. 18)

E.4 Financial assistance

There is a plethora of government financial assistance programs that are relevant to the set-up of new businesses. They include grants and subsidies, concessional loans, tax concessions, and venture capital assistance.

Financial assistance may be specific to particular industries, locations (for example, rural and regional areas or particular cities), types of businesses, and groups within the community. Assistance may also be focused on a particular business activity such as the commercialisation of research and development or expansion into export markets. Examples include: City of Melbourne and Frankston City grants (table E.4); the Australian Government's Export Market Development Grants Scheme; the Australian Government's Entrepreneurs Infrastructure Programme — Accelerating Commercialisation (table E.5); and the Northern Territory Government's Indigenous Business Development Program (table E.6).

Financial assistance is provided to help with a range of costs including business set-up costs, or to fund the development of new products and services. Often, financial assistance is provided to overcome perceived obstacles to accessing finance, including a lack of security on the part of the business owner, or risk aversion on the part of traditional financiers.

Table E.4 Industry and location specific government assistance

<i>Measure or program</i>	<i>Description</i>	<i>Objective</i>
Early Stage Development (Screen NSW, (NSW Government)	Provides support during the early stage of a screen entertainment project's life, with both investment and feedback. Offers investment in the materials for early development; and funding for business consultants and the writing of business plans for screen content companies.	To fund the development of feature films, television drama and narrative comedy, content-rich factual and documentary television or web programs and series, animation series, and creative interactive screen entertainment.
Skilled Regional Relocation Incentive (NSW Government)	Helps individuals relocate from metropolitan to regional areas for the purpose of self-employment or purchasing a small regional business.	To attract people to commence working in a regional job or start a regional small business.
Startup Queensland (Qld Government)	Provides funding of up to 50 per cent of the total eligible activity costs (up to a maximum of \$25 000) to Queensland-based organisations to deliver practical information, advice and networking opportunities, collaboration, connectivity and 'transformation entrepreneurship' to the Queensland start-up community.	To achieve a goal for the Queensland start-up sector to contribute 4 per cent of gross state product by 2033, thereby injecting \$20 billion and 100 000 new jobs into the Queensland economy.
City of Melbourne grants	Offers grants of up to \$30 000 to small businesses located or intending to locate in Melbourne to help start-ups that are 'new and creative'.	To encourage new, creative and diverse business activities that contribute to a thriving and competitive business environment within the city. To encourage city-based businesses to engage in and expand their export activities.
Frankston City grants	Offers up to \$15 000 for start-ups.	To create employment, activate commercial precincts, shift perceptions of the municipality, build a resilient local economy, and attract innovative enterprises.
City of Perth grants	Offers grants of up to \$2 000 to small businesses located or based within Perth to purchase new equipment, with start-up or expansion costs or for other approved projects.	Not stated.

Source: Australian Government (2015b)

Table E.5 Government assistance to high growth businesses, innovation and other knowledge creation

<i>Measure or program</i>	<i>Description</i>	<i>Objective</i>
Entrepreneurs Infrastructure Programme (Australian Government)	Research Connections helps small and medium businesses to collaborate with the research sector.	To develop new ideas with commercial potential, as well as help identify any knowledge gaps that are preventing business growth.
	Accelerating Commercialisation provides financial and other assistance to small and medium businesses and researchers (up to \$250 000 for the commercialisation group of a research agency, and up to \$1 million for a company).	To commercialise novel products, processes and services.
Industry Growth Centres Initiative (Australian Government)	Establishes centres consisting of business and research organisations in five specific growth centres.	Among other things, encourage collaboration and the commercialisation of new products.
R&D Tax Incentive (Australian Government)	Provides a targeted tax offset to eligible businesses in all industry sectors. Has two components: 45 per cent refundable tax offset for eligible entities with a turnover of less than \$20 million per annum; and a non-refundable 40 per cent tax offset for all other eligible entities.	To help businesses undertake R&D and innovate.
Minimum Viable Product program (NSW Government)	Offers matched funding of 50 per cent of approved project costs to a maximum of \$15 000 to demonstrate an idea, prove a concept, develop a prototype or customise a solution.	To support technology SMEs to engage with a potential business customer in a key market sector, and create an innovative business to business solution that addresses a compelling need.
Industries for Today and Tomorrow (Vic Government)	Facilitates the development of regionally-based businesses with high growth potential and encourages new industry investment in regional locations.	To support activity that addresses: business growth through new investment, adoption of new technology and innovation; market development; and regional industry skills.
Technology Development Voucher (Vic Government)	Offers grant funding of up to \$50 000 through a Technology Development Voucher to Victorian businesses.	To support commercially-focused projects involving the substantial development/and or absorption of industrial biotechnology, small technologies or advanced information and communications technology (ICT).

Continued next page

Table E.5 (continued)

<i>Measure or program</i>	<i>Description</i>	<i>Objective</i>
Innovation Connect (Icon) — Accelerating Innovation Grants (ACT Government)	Helps start-up and growth businesses with a feasible concept or service to enable participation in commercialisation, training, intellectual property strategies, marketing and mentoring processes. Offers grants from \$5 000 to \$50 000 on a dollar for dollar matching basis. The program has 3 categories – proof of technology, accelerating innovation, and clean technology.	To help Canberra-based businesses develop innovative products and services.
Business Innovation Support Initiatives (NT Government)	Assists NT-based and registered pre-start-ups, start-ups and microbusinesses to commence research and development projects in the areas of science, engineering, technology and design. Assistance is through vouchers or grants.	To assist Territory business people to commercialise the solutions they find to everyday problems, knowing that innovation can be the driver for long-term success.

Source: ACT Government (2015b); Australian Government (2015b); ATO (2015a); Business Victoria (2014); Department of Business (2015); RDV (2015)

Table E.6 Government assistance to particular community groups

<i>Measure or program</i>	<i>Description</i>	<i>Objective</i>
Indigenous Employment Programme (Australian Government)	Assists Indigenous Australians that have viable business ideas to start their own business, build skills to run and grow that business and also help Indigenous organisations, business owners, communities and family groups at any stage during the life cycle of the business.	To increase the employment outcomes and participation in economic activities for Aboriginal and Torres Strait Islander people.
New Enterprise Incentive Scheme (Australian Government)	Provides accredited small business training, advice and mentoring for eligible job seekers for up to 52 weeks, as well as ongoing income support for up to 39 weeks.	To support a successful and viable small business at the end of a participant's participation.
Social Enterprise Development and Investment Funds (Australian Government)	Offers finance and support to eligible social enterprises. Finance is offered through three fund managers.	To help social enterprises grow their business and increase the impact of their work in their communities.

Continued next page

Table E.6 (continued)

<i>Measure or program</i>	<i>Description</i>	<i>Objective</i>
Business Development and Assistance Program (Indigenous Business Australia)	Provides support, funding and loans for Indigenous people looking to start or grow a small to medium business.	To promote and encourage Aboriginal And Torres Strait Islander self-management and economic self-sufficiency. ^a
SA Young Entrepreneurs Scheme (SA Government)	Assists young South Australians aged 18 to 35 years to develop and implement their business ideas through providing a business mentor and workshops.	Not stated.
Social Enterprise Fund – Grants Program (WA Government)	Provides grants to new and existing social enterprises as well as a support service, through a consortium of not-for-profit organisations, including pre-investment support and after care support.	To increase the number, effectiveness and efficiency of social enterprises in Western Australia by supporting not-for-profit community sector organisations to establish new or strengthen existing social enterprises.
Indigenous Business Development Program (NT Government)	Provides financial assistance to Indigenous people to enter commercial businesses or expand existing businesses.	To develop employment and income opportunities.

^a Objective of Indigenous Business Australia, not the program.

Source: Australian Government (2015b); Department of Local Government and Communities (2014); IBA (2014)

E.5 Support through universities

Universities play a role in supporting business set-up. The role takes the form of: providing entrepreneurship and other courses that provide people with necessary skills to set up businesses; housing business incubators that can result in new businesses; and providing research that potentially can be commercialised. Two types of support are described here.

University business incubators

Many universities have business incubators, which promote the set up of new businesses by their students and academics (table E.7). Some university business incubators such as ATP Innovations involve a number of universities. Some such as the Melbourne Accelerator Program are housed within a single university.

Services provided by these university business incubators are varied, consistent with the range of services provided by business incubators generally (see earlier). Some provide facilities, some provide mentoring and advisory services, whereas others provide equity.

Table E.7 Selected university business incubators^a

<i>Business incubator</i>	<i>University(s)</i>	<i>Objective</i>	<i>Services offered</i>	<i>Funding partners^b</i>
ATP Innovations (NSW)	ANU, University of NSW, University of Sydney, University of Technology Sydney	To help technology-based start-ups and entrepreneurs grow, achieve success and find investment; and to create a supportive entrepreneurial ecosystem where innovation can thrive.	Provides office space, laboratories, guidance and mentoring, capital assistance and professional networks.	Allen Legal, AusIndustry, Austrade, California Technology Council, City of Sydney, Commonwealth Bank, Cook Medical, Head over Heels, NSW Department of Health, NSW Department of Trade and Investment, Optus, Springboard Enterprises, Startmate, Sydney Angels.
iAccelerate (NSW)	University of Wollongong	To help students, staff and the greater Illawarra community build and grow businesses.	Offers several programs including an ideas incubator for early stage businesses, a tailored business acceleration program for more advanced companies with high growth potential, engagement with successful entrepreneurs and networking opportunities, a mentoring program, and an early stage venture capital fund.	Accounting Professionals, ANZA Technology Network, Artesian Capital Management, ATP Innovations, Australian Industry Group, e>motion, Gemaker, GSS, NSW Department of Industry and Science, NSW Department of Trade and Investment, ICT Illawarra, Illawarra Business Chamber, Innovation Campus, Kells, KPMG, Microsoft BizSpark, NBN, Optus Seed program, PwC, Regional Development Australia, RMB Lawyers, School for Social Entrepreneurs, Selera, Springboard Enterprises, Startmate, Tactician, Telstra, Waterloo Accelerator Centre, Wild Rumpus, Wollongong Council, 99 designs.
Incubate (NSW)	University of Sydney and, in future, Monash University	To encourage entrepreneurship, calculated risk-taking and the creation of start-up ventures through lean methodologies and best practices.	Provides seed funding to start-ups, co-working space on campus, Internet, printing, office resources, use of meeting rooms, mentoring, advice from industry experts; and hosts events and discussion panels.	ATP Innovations, Flowdock, Freelancer, General Assembly, Google Developers, Hall Chadwick, Host Co, Microsoft BizSpark, National ICT Australia, Queens Collective, Rackspace, Survey Monkey, Xero, 99 Designs.

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Table E.7 (continued)

<i>Business incubator</i>	<i>University(s)</i>	<i>Objective</i>	<i>Services offered</i>	<i>Funding partners^b</i>
Macquarie Technology Business Incubator (NSW)	Macquarie University	To create a low risk, dynamic, and collaborative environment that fast-tracks pioneering technology businesses in the Northern Suburbs of Sydney — helping them to grow into financially successful companies in the community.	Offers office space and business advisory services.	None
Melbourne Accelerator Program (Vic)	University of Melbourne	To support entrepreneurs (students, staff or alumni from the University) of all stages and accelerate the growth of world-class start-ups.	Hosts public events, workshops and feeder programs; provides access to the MAP start-up accelerator; and provides financial support, office space, networking opportunities and mentoring, trips to Silicon Valley and Sydney.	None
iLab (Qld)	University of Qld	To find, foster and support Queensland founders to create disruptive, digital based, high growth businesses.	Provides three main programs (including offering grants and investment), mentor networks, assistance with applications for competitive funding, and assistance to interns looking for start-up experience.	Qld Government.
Innovation Centre Sunshine Coast (Qld)	University of Sunshine Coast	To create new jobs in new industries for the Sunshine Coast region, whilst offering business support for entrepreneurs and growing companies.	Provides serviced offices, high speed Internet connections, consulting support, investment readiness and networks for both start-up and growth businesses. Connects clients with mentors. Runs a business development program. Provides connections through the University via graduate recruitment, student projects, input to learning and teaching, and research partnerships.	Private companies in the ICT, clean technology and health technology industries.

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Table E.7 (continued)

<i>Business incubator</i>	<i>University(s)</i>	<i>Objective</i>	<i>Services offered</i>	<i>Funding partners^b</i>
Entrepreneurship, Commercialisation and Innovation Centre (SA)	University of Adelaide	To stimulate innovation through its research, teaching and community engagement activities; and to assist University of Adelaide students and staff commercialise their research outcomes.	Provides online training, mentoring and hands-on support, face-to-face workshops, presentations, business incubation support services, Australian eChallenge, and the ThinLab Commercialisation Accelerator.	None
New Ventures Institute (SA)	Flinders University	To create and foster an entrepreneurial community in Adelaide; and to grow wealth, employment and investor returns through start-ups.	Hosts an incubator and co-working space. Provides Venture Dorm entrepreneurial education environment, Enterprise Workshop 2.0 (an 8 month MBA style program). Provides virtual boards where entrepreneurs can meet with and gain advice from seasoned professionals. Assists with creating online infrastructure for businesses.	None
Canberra Innovation Network (ACT)	ANU, University of Canberra, UNSW (Canberra)	To connect innovative businesses and entrepreneurs with what they need to succeed; to promote their success; and to accelerate innovation in the ACT using both tested and experimental approaches.	Provides a network linking businesses and entrepreneurs to services, facilities and stakeholders; offers educational and network resources; hosts workshops and events; provides a co-working space; and the Griffin Accelerator, which provides investment to start-ups.	ACT Government, CSIRO, King and Wood Mallesons, National ICT Australia, Ricoh.

^a Business incubator housed in or affiliated with a university. ^b Funding source external to the university.

Source: Various university websites.

The rationales for universities having business incubators are varied. They may be intended to support a university's existing entrepreneurship education programs, support a university's commercialisation of its research, raise a university's domestic or international profile, or elicit funding and support from university alumni and other sponsors. Many of

these incubators involve some co-funding by governments, other research institutions and/or the private sector.

The Australian Government indirectly supports university business incubators through its funding of universities. Some state, territory, and local governments also provide direct funding for entrepreneurship programs — for example, iAccelerate at the University of Wollongong and iLab at the University of Queensland. Funding support may also come from businesses and other non-government organisations — for example, the Canberra Innovation Network.

Entrepreneurship education programs

Most Australian universities have developed entrepreneurship education programs (table E.8). A study by Crispin et al. (2013) found that most universities across Australia reported increased interest in entrepreneurship as a subject of study and that many were offering majors in the field. Furthermore, in 2014, around 95 per cent of Australia's 39 universities offered entrepreneurship or small business units at undergraduate level and 90 per cent at the postgraduate level (Mazzarol 2014b).

Like university business incubators, the Australian Government indirectly supports entrepreneurship education programs through its funding of universities. Some state, territory, and local governments also provide direct funding for entrepreneurship programs — for example, the Curtin University Centre for Entrepreneurship has an Ignition program, which is funded in part by the Western Australian Government and Flinders University's New Venture Institute, is funded in part by the South Australian Government, City of Marion and Adelaide City Council.

Table E.8 Entrepreneurship education programs in selected Australian universities

<i>University</i>	<i>Program</i>	<i>Funding partners^a</i>
University of Sydney (NSW)	Graduate Certificate in Innovation and Enterprise	None
	Master of Commerce (Strategy, Innovation and Entrepreneurship)	None
	The Sydney Accelerator Network: IT offers short courses.	Grok Learning, Tzukuri, FoodPod and Animatives. ^b
	The Entrepreneurship and Innovation Research Group offers courses.	None
La Trobe University (Vic)	Innovation and Entrepreneurship Essential	None
	Master of Management (Entrepreneurship and Innovation)	None
University of Melbourne (Vic)	Master of Business Administration (Executive, Senior Executive, Graduate Diploma)	None
	The Melbourne Accelerator Program offers programs such as the Master Class Series, Startup Velocity, and Escape Velocity.	None
Griffith University (Qld)	Bachelor of Business (Entrepreneurship and Self Employment Specialisation)	None
	Graduate Certificate in Enterprise Architecture	None
University of Qld (Qld)	Graduate Certificate in Business (Entrepreneurship)	None
	Bachelor of Business Management (Honours)	None
	Master of Business (Entrepreneurship)	None
Flinders University (SA)	Bachelor of Business (Entrepreneurship)	None
	The University has a New Venture Institute, which offers programs to help entrepreneurs start-up new business ventures. Programs including Venture Dorm, Enterprise Workshop 2.0 and Flinders Enterprise Consulting.	Programs are often co-funded by partners. For example, Venture Dorm is co-funded by the City of Onkaparinga, Government of South Australia, TAFESA, City of Marion, Adelaide City Council, and Microsoft.

Continued next page

Table E.8 (continued)

<i>University</i>	<i>Program</i>	<i>Funding partners^a</i>
University of Adelaide (SA)	Bachelor of Innovation and Entrepreneurship	None
	Graduate Certificate, Diploma and Masters in Applied Innovation and Entrepreneurship	None
	Graduate Certificate in Social Entrepreneurship and Innovation	None
Curtin University (WA)	Bachelor of Commerce (Entrepreneurship Specialisation, Accounting and Entrepreneurship Double Major, Entrepreneurship and Marketing Double Major)	None
	Bachelor of Business Administration (Small Business and Entrepreneurship Specialisation)	None
	The University has a Centre for Entrepreneurship, which offers programs for small business owners and those engaged in commercialisation. It also runs the Curtin Growth Ignition – an annual event comprising practical teaching sessions, expert clinics, mentor sessions and experienced advice and support.	The Curtin Growth Ignition is co-funded by the Department of Local Government and Communities (WA), Curtin Office of IP Commercialisation, Curtin Business School, Edith Cowan University, University of Western Australia, Murdoch University and WRAYS.
University of Western Australia (WA)	Graduate Certificate in Entrepreneurship and Innovation	None
	Master of Business Administration (Entrepreneurship and Innovation)	None
	Offers executive education programs with the Australian Institute of Management	Australian Institute of Management
ANU (ACT)	Specialisation in Entrepreneurship and Innovation	None
	Student Project in Commercialisation and Entrepreneurship in Technology	ACT Government.

^a Funding source external to the university. ^b These institutions are permanent members of Sydney Accelerator Network: IT.

Source: Mazzarol (2014b); various university websites.

E.6 Evidence for government support to start-ups

This section presents evidence relied in chapter 10 as relevant to assessing the role of government with respect to start-ups and entrepreneurial ecosystems.

Australian entrepreneurial attitudes and education compared with other countries

Compared with other countries, it appears Australia does not perform well in how entrepreneurship is viewed in the community (table E.9).⁹ Starting a business as a career choice in Australia is viewed as being less desirable than in the United Kingdom, United States and Canada. Similarly, successful entrepreneurs are viewed more favourably in other countries than in Australia. The fear of failure is reported as a greater barrier to establishing a business in Australia than in the United States but is similar in Canada and the United Kingdom.

Australia also does not appear to perform well in relation to entrepreneurship education scoring below that of the United Kingdom, United States and Canada.

The importance of an entrepreneurial culture to start-ups

The entrepreneurial culture of a community (or country) affects the attitude that individuals have towards entrepreneurship, the likelihood of their choosing to be an entrepreneur as a career, their motivation to succeed and start again after failure, and the support given to setting up a business (Lerner et al. 2014; OECD 2012b).

However, few studies have directly measured the impact of a country's entrepreneurial culture on the set-up of new businesses. Those that have done so (for example, by examining the impact of variations in culture between regions of a country) found that culture plays a role in business formation, but this appears to be of less significance than the impact of 'structural' factors relating to the economy or the population (for example, Davidsson and Wiklund 1997 and Mueller and Goic 2002, cited in Bergmann 2009, pp. 62–63).

⁹ Caution should be exercised in interpreting survey responses. Contextual factors are important, including the respondent's interpretation of the question and their perception of what constitutes a barrier to a certain activity. Further, not all indicators of entrepreneurial activity are of equal weight and there is no objective basis for determining which indicator is most relevant to a particular policy or outcome. Similarly, the quality of data used to measure a country's performance varies by publication and indicator.

Table E.9 Australia's relative performance on several entrepreneurial cultural and educational indicators is very poor

Global Entrepreneurship Monitor for Australia and comparable countries^a

<i>Indicator</i>	<i>Australia</i>	<i>UK</i>	<i>US</i>	<i>Canada</i>
Perceptions of social values (per cent agree with statement)				
Entrepreneurship as a good career choice	53.4	60.3	64.7	57.2
High status to successful entrepreneurs	67.1	75.0	76.9	69.7
Media attention for entrepreneurship	72.6	58.4	75.8	67.7
Individual attributes (per cent agree with statement)				
Perceived opportunities ^b	45.7	41.0	50.9	55.5
Perceived capabilities	46.8	46.4	53.3	49.0
Fear of failure ^c	39.2	36.8	29.7	36.5
Entrepreneurial intentions ^d	10.0	6.9	12.1	12.0
Motivation for early stage entrepreneurial activity				
Necessity driven (per cent of total early-stage entrepreneurial activity — TEA)	17.6	12.9	13.5	15.7
Opportunity driven (per cent of TEA)	81.5	83.6	81.5	76.3
Improvement driven opportunity (per cent of TEA)	63.8	52.7	66.9	63.3
Motivational index ^e	3.6	4.1	5.0	4.0
Entrepreneurship framework conditions (5 point Likert scale)^f				
Education for entrepreneurship (primary and secondary)	2.19	2.44	2.21	2.32
Education for entrepreneurship (post-secondary)	2.85	3.02	2.87	3.14
Cultural and social norms	3.19	2.83	3.75	3.28

Denotes Australia's relative performance is first  and fourth 

^a Based on survey sample sizes of 2177 for Australia, 2007 for the United Kingdom, 3273 for the United States, and 2479 for Canada. ^b Perceived opportunities is the percentage who see good opportunities to start a business in the area where they live. ^c Fear of failure is the percentage who indicated a fear of failure would prevent them from setting up a business. ^d Relates to respondents who expect to start a business within three years and who is currently not involved in entrepreneurial activity. ^e Ratio between improvement driven opportunity and necessity driven motivation. ^f Scale ranges from 1 (the statement is completely false) to 5 (the statement is completely true).

Source: Singer et al. (2015)

Other studies have found that individual attitudes (as distinct from broader cultural factors) — such as the assessment of one's own capabilities, the perception of opportunities for founding a business, and risk aversion or fear of failure to business formation — have a significant impact on business set-up (for example, Arenius and Minniti 2005, Koellinger, Minniti and Schade 2007, Lee, Wong and Ho 2004, cited in Bergmann 2009, p. 63). Moreover, some of these studies concluded that individual attitudes were less influenced by culture than by personality traits and structural factors (Bergmann 2009, p. 64).

Overall, this evidence suggests that while the culture of a country can contribute to business set-up, it is not the only, or indeed the most significant factor, with individual attitudes, economic and demographic factors also important. If there is a role for

government, focusing on a community's entrepreneurial culture is at best only one consideration.

The importance of entrepreneurial skills to start-ups

Concerns about deficiencies in entrepreneurial education and training in Australia touch on an ongoing debate about whether entrepreneurs share certain personality traits; that they are 'born, not made' (Davidsson and Gordon 2013; Davidsson 2013; Featherstone 2015).

Recent psychological research has found a relationship between personality traits and entrepreneurship. For example, in their meta-analysis, Rauch and Frese (2007, cited in Davidsson and Gordon 2013, p. 2) found that personality traits such as 'need for achievement', 'generalised self-efficacy', 'innovativeness', 'stress tolerance', 'need for autonomy' and 'proactive personality' were more pronounced among entrepreneurs than other people.

However, in his review of this and other psychological research, Davidsson considered that, although 'personality matters':

... it is a mistake to think that it is *the* determining factor in any entrepreneurial process. [The] "failure" to find a typical, "must-have" personality profile sends a very, very positive message: a large majority of people are likely to be able to succeed in entrepreneurship under the right circumstances. A person who does not come across as a "natural born entrepreneur" can become a successful business founder when they work on an idea they are passionate about, and when they find their right role on an entrepreneurial team with complimentary competencies. Personality testing can only give marginal guidance for investors, and very few people have reason to think of themselves as "non-entrepreneurs" due to their personality. (2013, p. 2)

Key generic entrepreneurial skills are largely independent of the nature of business activity and can include: business planning; general business skills such as marketing; bookkeeping; financial literacy; project management skills; awareness and perceptions of opportunities; and socio-economic skills such as self-confidence, leadership, creativity, risk propensity, motivation and resilience (for example, see OECD 2014d; Valerio, Parton and Robb 2014).¹⁰

Individuals can acquire these skills through direct 'on-the-job' experience, or through formal programs offered by schools, universities, industry associations and other organisations.

That some entrepreneurial skills, like other skills, can be learned has been borne out by several studies, which found positive effects from entrepreneurial education and training

¹⁰ In addition to generic skills, entrepreneurs also require job-specific skills related to the products or services their business offers (OECD 2014d, p. 3).

on business formation and success (box E.2). However, the effects of such learning may at best be modest and very dependent on the content and delivery of the education and training program. Moreover, there appears to be limited evidence on the effectiveness or efficiency of government support for education and training programs, or on their longer-term outcomes.

Box E.2 The impacts of entrepreneurship education and training programs on start-ups

School programs

- A study of a Netherlands program called BizWorld for students aged 11 to 12 years found that the program had positive and significant effects on the development of non-cognitive skills (such as self-efficacy, the need for achievement, risk taking propensity, persistence, analysing, creativity and proactivity) among the students who received the program compared with those in the control group (Huber, Sloof and van Praag 2012, cited in Valerio, Parton and Robb 2014, p. 61). However, it also found positive, but not significant effects on cognitive entrepreneurial skills (entrepreneurial knowledge) and negative and significant effects on entrepreneurial intentions (to own a business). The study acknowledged that the measures used for entrepreneurial intentions were not validated for children and could potentially have affected the results.
- An Australian study of the Young Achievement Australia Program, a not-for-profit program for secondary students, found that participants reported significantly higher perceptions of the desirability and feasibility of starting a business (Peterman and Kennedy 2003).
- A study of the Swedish Junior Achievement Company Program, a not-for-profit program in high schools, found that participation increased the likelihood of starting a new business by at least 20 per cent when compared with the non-participants of the program. However, there was no significant effect on the survival of the business (Elert, Andersson and Wennberg 2013, cited in Valerio, Parton and Robb 2014, p. 200).

University programs

- Oosterbeek et al. (2008) found that Dutch students participating in the Dutch Association Jong Ondernemen program were more likely to form negative intentions towards entrepreneurship and have lower self-assessed enterprise skills.
- Pittaway and Cope (2007) undertook a systematic review of studies on entrepreneurship education largely from the United States and the United Kingdom. They found that while there was evidence that university education in entrepreneurship has a positive impact on student intentions to embark on entrepreneurial-related projects, there was little evidence to demonstrate actual performance post course completion.
- Elmuti, Khoury and Omran (2012, cited in Mazzarol 2014b, p. 9) examined the impact of university education in entrepreneurship on 170 people in the United States who had either started or were embarking on a business start-up. They found that education enhanced their skills and business performance, in particular their attitudes towards the entrepreneurial process and their interpersonal social and technical skills. They suggested that while entrepreneurship can be taught, it requires content based on case studies, application within real world projects, self reflection, and interactions between students.

(Box continued)

Box E.2 (continued)

- A study by the European Commission (2012, p. 7) of over 2500 alumni from 9 higher education institutions in Europe and the European Confederation of Junior Enterprises (JADE), which provides practical training, found that entrepreneurship education has a positive impact on the entrepreneurial mindset of young people, their intentions towards entrepreneurship, their employability, and their role in society and the economy. In particular, their data show (2012, p. 15) that a higher proportion of employed entrepreneurship alumni from the universities were thinking about starting up a business compared with the control group (39 per cent compared with 24 per cent). The proportion of employed JADE alumni thinking about starting up a business was even higher (57 per cent).
- In their meta-analysis of 42 studies of entrepreneurial education and training programs, Martin et al. (2013) found a moderate improvement in entrepreneurial skills and outcomes, including starting and building a venture, following education or training.

Other programs

- Fairlie et al. (2012) confirmed the positive effects of training under the US GATE program on the propensity to start a business, but training had no measurable effect on the survival, growth or earnings of an enterprise.

Australia's performance in STEM compared with other countries

Some recent reviews have compared Australia's performance in STEM with overseas competitors. Australia appears to be performing relatively well in a number of areas, but may be at risk of being 'left behind' by other nations experiencing more rapid improvements in STEM:

Overall, Australia is positioned not far below the top group but lacks the national urgency found in the US, East Asia and much of Western Europe (Marginson et al. 2013).

These reviews have highlighted some key trends and areas of concern, including the following:

- According to the Programme for International Student Assessment (PISA) — comparing STEM outcomes for 15 year olds in 65 countries — Australia ranks 7th in science and equal 13th in mathematics (Marginson et al. 2013). These positions have declined over time. The Trends in International Mathematics and Science Study (TIMSS) found that 17 countries recorded significantly higher year 4 mathematics results than Australia (Ai Group 2015). These included the US, England and most Asian countries.
- Of Australian students in the lowest SES quartile, 22 per cent and 28 per cent fall below the PISA international benchmarks for scientific literacy and mathematical literacy respectively (Marginson et al. 2013). Australia also has a 'longer tail' of under-performing students than Canada — considered to be a significant and close comparator (Marginson et al. 2013).

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- According to the TIMSS, 55% of Australian year 4 students ‘like science,’ but only 25% say so in year 8 (Marginson et al. 2013). The international average declines at a slower rate — from 53 to 35 per cent. The percentage of year 12 students enrolled in STEM has also consistently declined for a number of decades (Office of the Chief Scientist 2014a).
 - More than a third of Australians teaching year 7-10 mathematics teach ‘out of field’ (Ai Group 2015). Out of field teaching has only been found prevalent in the United States, Brazil and Australia, and appears to be a more common in Australia than the United States.
 - The proportion of Australian tertiary students with first degrees in STEM is below 11 per cent, and Australia ranks 12th in this regard when compared with 11 Western European countries, the US and Canada (Office of the Chief Scientist 2014a). In 2010, 8.7 per cent of new Australian entrants to tertiary education were in engineering, manufacturing and construction — compared to the OECD average of 15 per cent (Marginson et al. 2013). Australian STEM-related course completions have also decreased — from 22 per cent in 2002 to 16 per cent in 2012 (Ai Group 2015). Similarly, Australia ranks lower than eight OECD nations in terms of science and engineering doctoral graduates per population (Office of the Chief Scientist 2014a).

STEM skills prevalence in Australia

Much attention has focused on a ‘shortage’ of, or difficulties in recruiting, workers with science, technology, engineering and mathematics (STEM) skills in Australia — for example, Deloitte Access Economics (2014, 2015); Google (sub. 37, p. 5); PriceWaterhouseCoopers (PwC 2013, p. 20); Prinsley and Baranyai (2015); StartupAUS (2015, pp. 46–51); and Sydney City Council (2015, p. 36). However, what might be a shortage is really a sign of a functioning market.

StartupAUS (2015, pp. 46–47) reported that demand for information and communications technology (ICT) workers has doubled over the period 1999 to 2012, whilst applications for tertiary ICT courses have dropped approximately 60 per cent over the same period. It also reported Australian Computer Society estimates that an additional 35 000 ICT professionals will be needed over the next three years, which is three times the projected number of domestic ICT graduates from Australian universities over that period.

An Office of Chief Scientist commissioned survey of employers on their attitudes to STEM skills and STEM employees (Deloitte Access Economics 2014; Prinsley and Baranyai 2015) indicated that 32 per cent of employers found it difficult to recruit STEM graduates and 41 per cent found it difficult to recruit STEM qualified technicians and trades people. Around one in five reported a shortage of graduates. Around one in three reported a mismatch between the skills required and those of applicants.

The Australian Government Department of Employment’s *Survey of Employers who have Recently Advertised 2014* (Department of Employment 2015c, 2015d) showed that with

respect to ICT professions (other than software engineers) and engineering professions and technicians, a national rating of ‘no shortage’ was given — that is, there was no widespread significant difficulty among employers in filling vacancies. However, ‘recruitment difficulty’ was experienced with respect to software engineers, especially where a high level of security clearance was required. At a state and territory level, filling vacancies for skilled workers generally was hardest in New South Wales.

Norton (2015) of the Grattan Institute considered that new science graduates have long had below average rates of full-time employment. While employment levels improved across time, compared with other graduates, a smaller proportion of science graduates work in professional or managerial jobs or say their qualification is necessary or relevant for their job. In 2015, fewer than half of life sciences graduates who were looking for full-time work had found it four months after completing their courses, 20 percentage points below the graduate population as a whole. While information technology graduates do better than science graduates, ‘they too are finding jobs scarcer than a few years ago’.

According to the Australian Industry Group Survey of Workforce Development Needs, almost 44 per cent of employers experience difficulties recruiting STEM-qualified technicians and trade workers (Ai Group 2015). Respondents indicated that the main barriers are a lack of qualifications relevant to the business (36 per cent) and a lack of employability skills and workplace experience (34 per cent).

Start-ups receiving government support

Table E.10 **Most start-ups do not receive government support^a**
Comprehensive Australian Study of Entrepreneurial Emergence, 2013

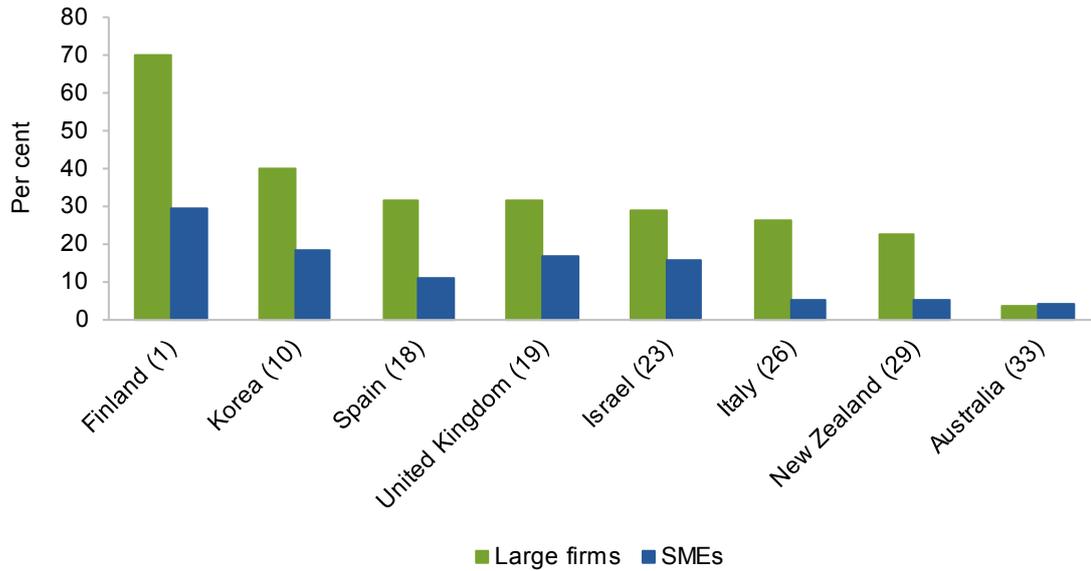
<i>Firm type</i>	<i>Received government support</i>	<i>Did not receive government support</i>	<i>Total</i>
Nascent firms			
Number	19	172	191
Per cent	10	90	100
Young firms			
Number	21	224	245
Per cent	9	91	100
Total			
Number	40	396	436
Per cent	9	91	100

^a Government support covers grants, advice, training, mentoring, and tax concessions and rebates.

Source: Gordon and Davidsson (2015)

Research collaboration

Figure E.1 **A very low proportion of businesses collaborate with research institutions in Australia**



^a Numbers in parentheses refer to ranking ^b Data for Canada and the United States was not included in this dataset

Source: Australian Government (2014c); OECD, based on Eurostat (CIS-2010) and national data sources, June 2013.

Business incubators

Table E.11 **Most important reasons for locating in a business incubator^a**
Comprehensive Australian Study of Entrepreneurial Emergence, 2013

Nascent firms

Security / quick access to additional companies / suited the start-up process
A mutual push so that everyone is motivated / it saves money
Ease of access to clients / access for clients and myself / moved to a more central location
To save money on overheads / rent
No facility available in the area for us on our own which had the open floor space needed
Inter business referral / we share the same space as someone we collaborate with / we share and refer business between each other
To save on cost of running / already had a business set up — so I just run it out of the same space
The cost of the room / it was cheaper in the business incubator
Access to more equipment and peer support
Collaboration with a business partner / they had extra office space that we could use / we had a formal agreement / business in a different industry but we could join forces / We offered them software — they offered clients / joint venture to become a leasing service provider
To be with other people of a likewise mind / I had a virtual office at the University so it was more appropriate to have an address like that so to be involved with people
To save money on overheads — reduced rent
Financial reasons / saving money on overheads
Expansion and new business / the experience of working with other people in the health industry
Was looking to build a better client base / wanted to attract physical traffic coming in / also to build business contacts

Young firms

Appropriate space for our clients — easy access for them / it is a shared space in a school for after-hours tutoring and general education enrichment
Relocated due to personal reasons / had 2 babies at home when we started the business so we needed to relocate
Relationship building and referral sources / the overheads are split among the businesses
Networking with other people of similar backgrounds / the opportunity presented itself
For more working space for manufacturing products / shared space is a warehouse / only sharing with one other person
Share a warehouse / to provide space for stock and we also share machinery / We use the yard to store stock / also financial reasons — cheaper to share the space — couldn't afford on our own / we also collaborate with the business we share the space with / give and take with sharing clients
There was a like business operating in the same space so we could rely on each on things that needed extra hands

^a A business incubator includes a shared space.

Source: Gordon and Davidsson (2015)

Table E.12 Few start-ups are ever located in a business incubator^a
 Comprehensive Australian Study of Entrepreneurial Emergence, 2013

<i>Firm type</i>	<i>Located in an incubator</i>	<i>Not located in an incubator</i>	<i>Total</i>
Nascent firms			
Number	19	172	191
Per cent	10	90	100
Young firms			
Number	21	224	245
Per cent	9	91	100
Total			
Number	40	396	436
Per cent	9	91	100

^a A business incubator includes a shared space.

Source: Gordon and Davidsson (2015)

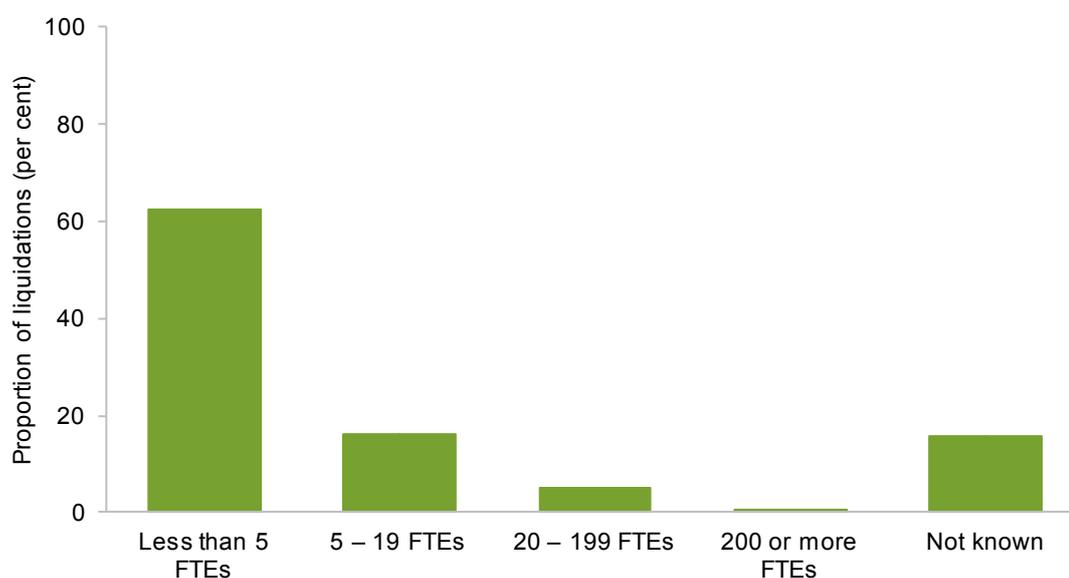
F Insolvency data

This appendix provides a statistical overview of corporate insolvency in Australia, and supports the analysis undertaken in chapters 13, 14 and 15. Much of this appendix draws on administrative data provided to the Commission by the Australian Securities and Investments Commission (ASIC), although other data sources are used where appropriate.

F.1 Overview of corporate insolvency in Australia

Figure F.1 **Just under two-thirds of liquidations involve companies with less than 5 full time equivalents**

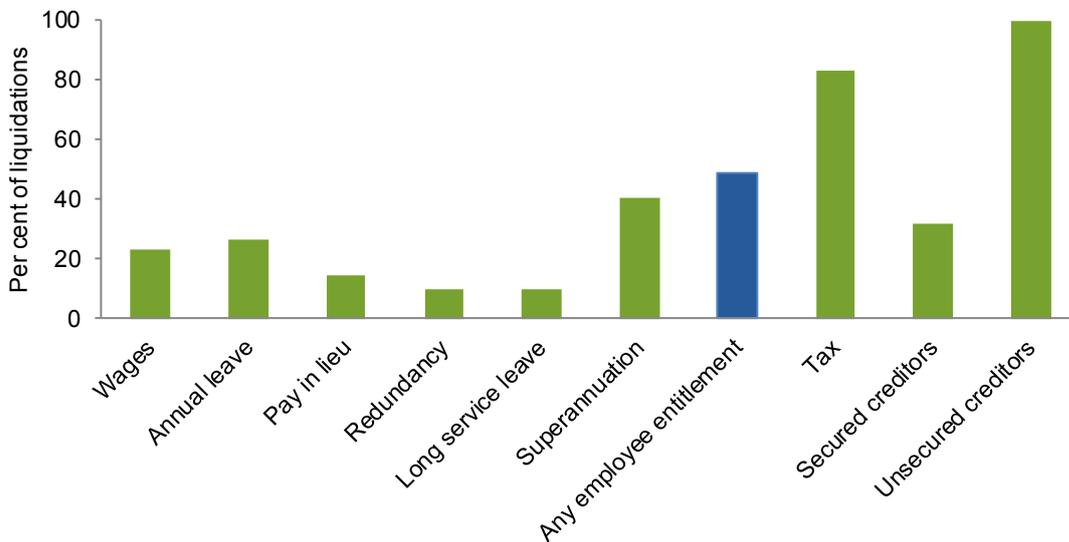
As identified by practitioners on ASIC EX01 forms, 1 July 2006 to 21 April 2015



Source: ASIC administrative data

Figure F.2 Most failed companies owe taxes and money to unsecured creditors. About half owe money to employees

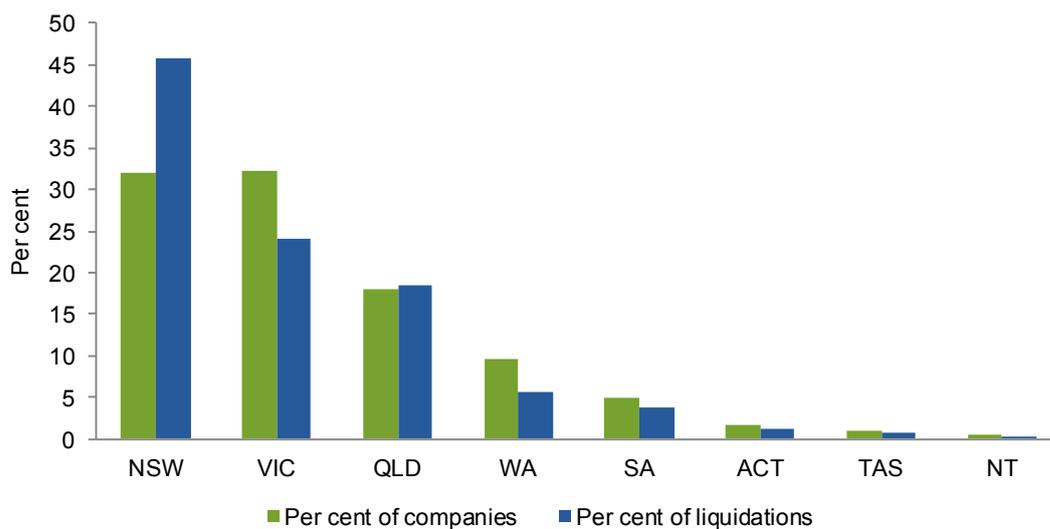
As identified by practitioners on ASIC EX01 forms, 1 July 2006 to 21 April 2015



Source: ASIC administrative data

Figure F.3 Most liquidations occur on the East Coast

Appointments from 1 January 2005. Does not include member's voluntary wind ups

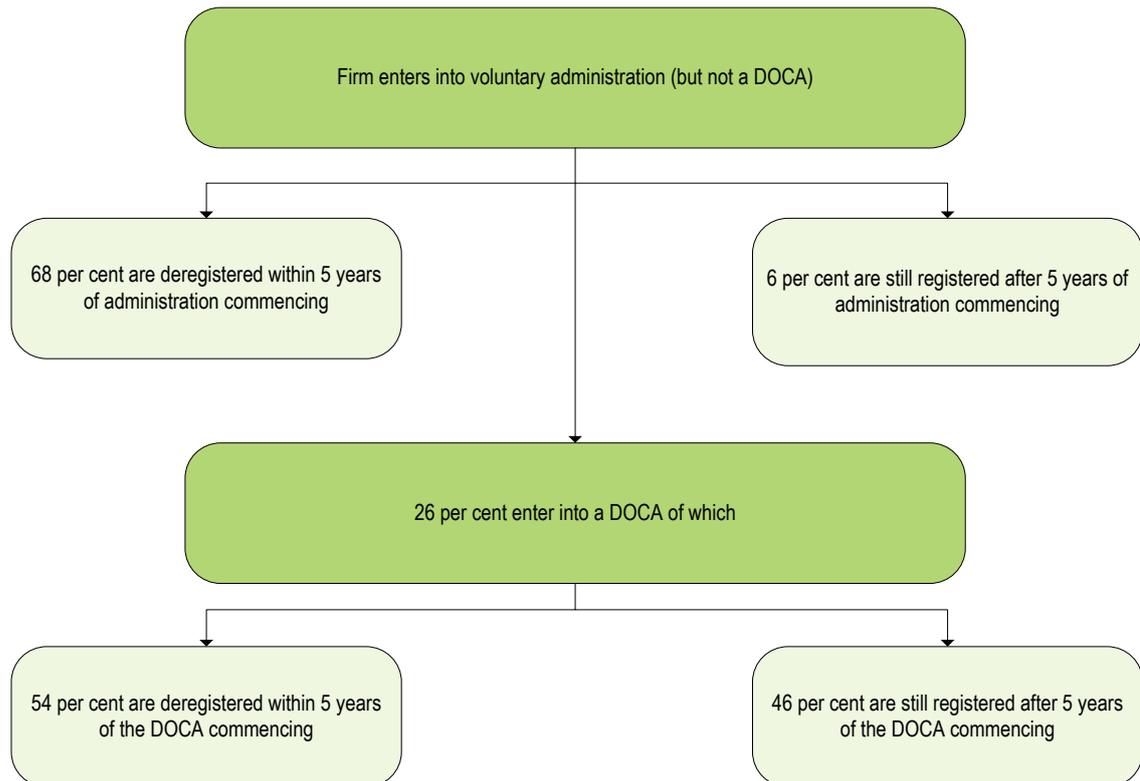


Source: ASIC administrative data, ASIC (2014b, June data)

F.2 Voluntary administration

Figure F.4 **Most businesses who enter into voluntary administration do not survive** ^{a, b}

Voluntary administration appointments from 1 January 2005. Does not include businesses still under voluntary administration



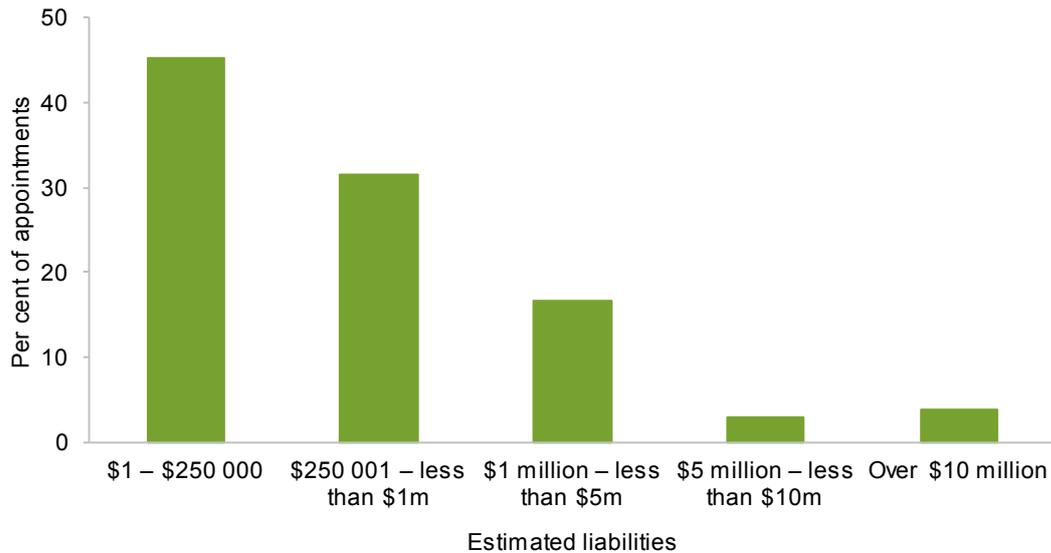
^a DOCA stands for Deed of Company Arrangement ^b On the proportion of companies that remain registered after a DOCA, Wellard (2014) presents different estimates (64 per cent remain registered and 28 per cent deregister). One likely factor that contributes to this variance in results is the time period over which survivability is examined — in Wellard (2014), registration status is taken from 1 to 2 years after the commencement of the DOCA, while the Commission has examined survivability after 5 years. Wellard also notes that even though many companies who progress through a DOCA remain registered, the most common outcome is still a 'quasi-liquidation' (occurring in around 72 per cent of cases).

Source: ASIC administrative data

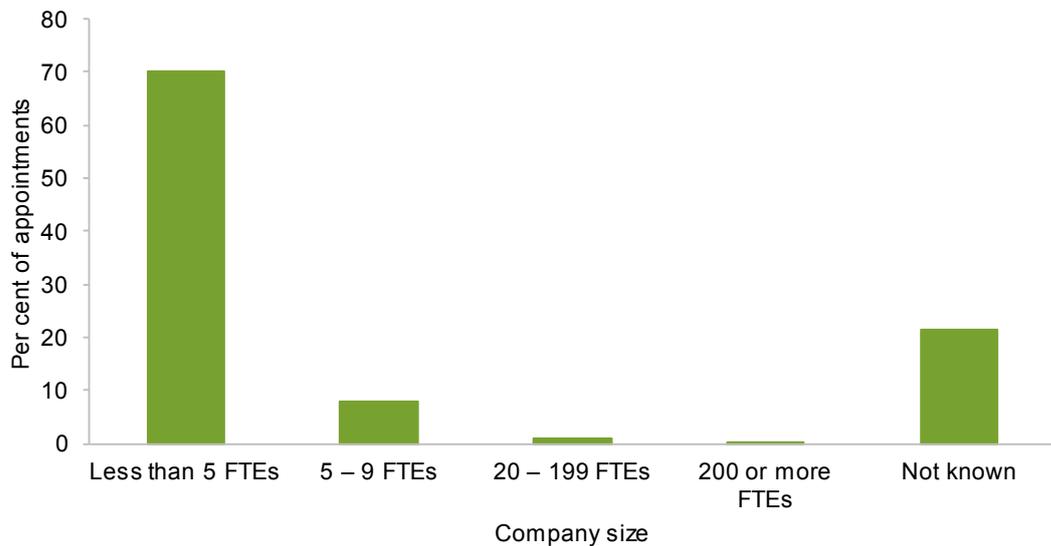
F.3 'Small' insolvencies

Figure F.5 Practitioner appointments by estimated liabilities

Nearly half of practitioner appointments are for companies with estimated liabilities of less than \$250 000



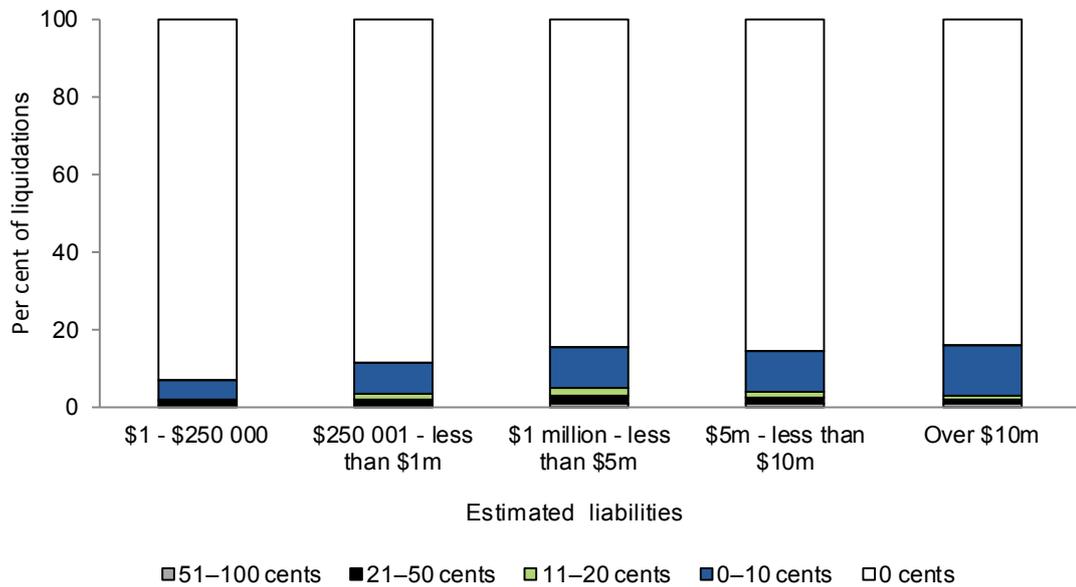
Most companies whose liabilities are less than \$250 000 are small



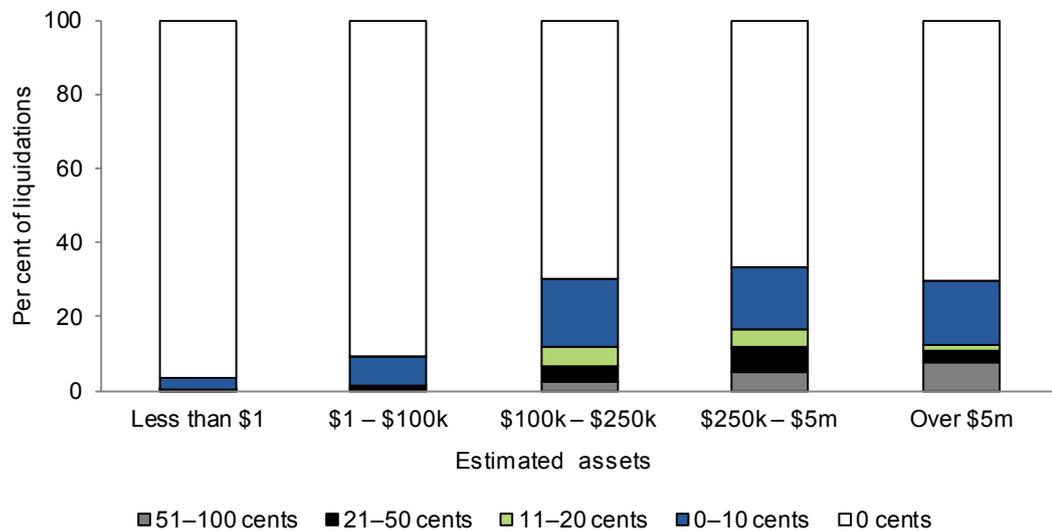
Source: ASIC administrative data

Figure F.6 Dividends paid to unsecured creditors

Most liquidations do not return a dividend to unsecured creditors...

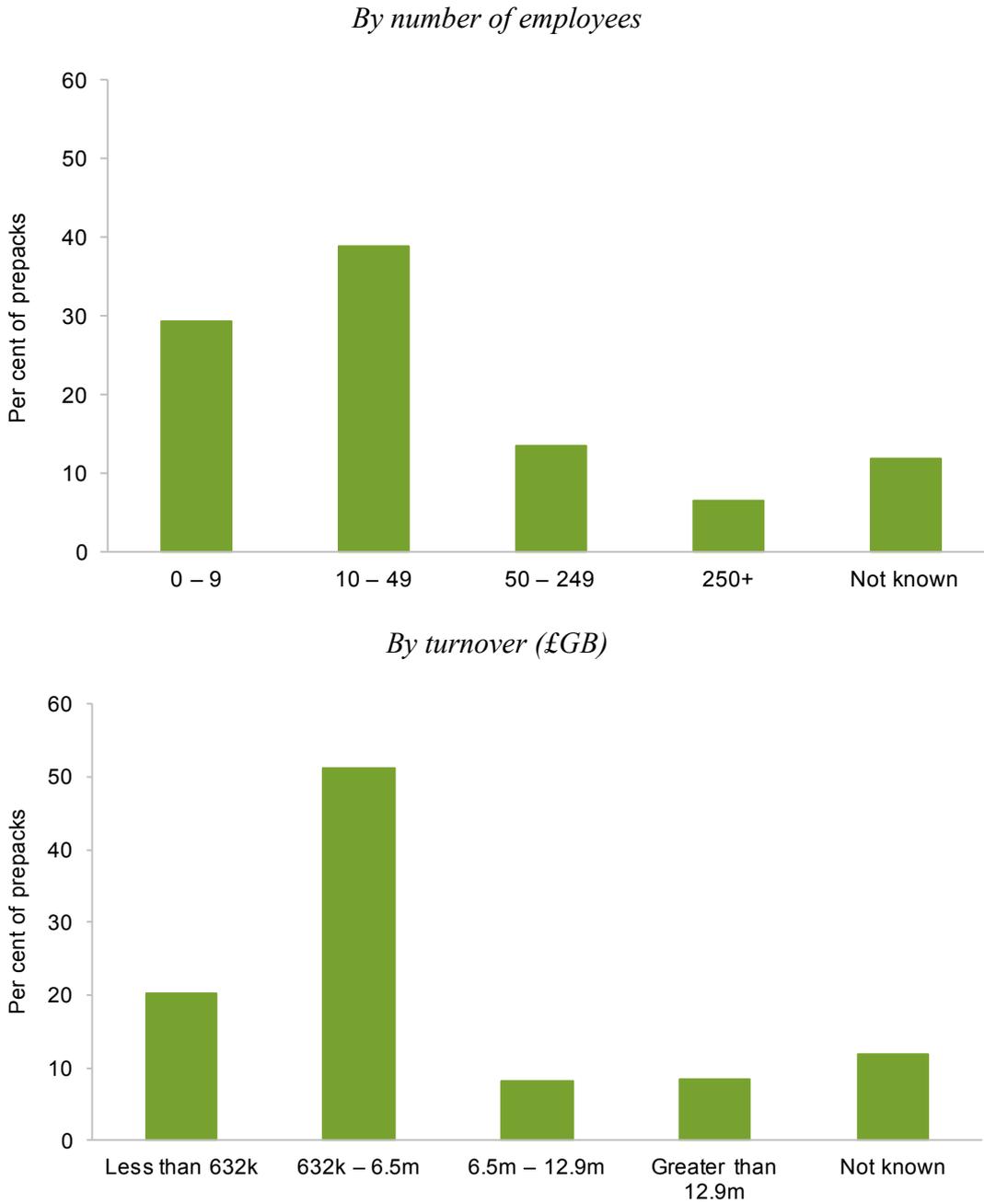


... the likelihood of an unsecured creditor receiving a dividend increases slightly as the insolvent company's assets increase



Source: ASIC administrative data

Figure F.7 Evidence from the UK suggests that most businesses who use prepacks are reasonably small



Source: Walton and Umfreville (2014)

Table F.1 Most small insolvent companies have relatively few assets and liabilities

Per cent of insolvent companies with less than 20 employees by value of assets and liabilities. As identified by practitioners on ASIC EX01 forms, 1 July 2006 to 21 April 2015

Assets	<i>Liabilities</i>				
	\$1 – \$250k	\$250k - \$1m	\$1m - \$5m	\$5m - \$10m	Over \$10m
Less than \$1	20.6	9.1	3.6	0.7	1.5
\$1 - \$100k	23.1	19.5	6.1	0.6	0.4
\$100k – \$250k	0.7	3.3	1.9	0.2	0.1
\$250k - \$5m	0.2	1.8	4.2	0.8	0.7
Over \$5m	-	-	-	0.1	0.5

Source: ASIC administrative data

F.4 The Fair Entitlements Guarantee

Table F.2 Government recovery rates of expenditures under the Fair Entitlements Guarantee are low

<i>Financial Year</i>	<i>Total assistance</i>	<i>Employees paid</i>	<i>Average payment per employee</i>	<i>Recovery amount</i>	<i>Recovery rate against amount paid</i>
	\$ million	Number	\$	\$ million	Per cent
2001-02	62.6	10 595	5 912	1.5	2.5
2002-03	67.6	9 364	7 217	5.2	7.7
2003-04	60.4	8 699	6 940	5.2	8.6
2004-05	66.7	8 845	7 539	12.1	18.1
2005-06	49.2	7 162	6 876	26.0	52.8
2006-07	73.0	8 626	8 460	9.5	13.0
2007-08	60.8	7 808	7 784	16.8	27.6
2008-09	99.8	11 027	9 047	9.1	9.1
2009-10	154.1	15 565	9 898	18.7	12.2
2010-11	151.3	15 413	9 819	15.6	10.3
2011-12	195.5	13 929	14 038	21.4	10.9
2012-13	261.7	16 019	16 334	37.2	14.2
2013-14	197.2	11 255	17 521	19.1	9.7
2014-15 (at 28 February 2015)	176.4	10 447	16 886	13.4	7.6
Total	1 519.0	156 848	9 685	210.8	13.9

Source: Data supplied by the Department of Employment