



THE UNIVERSITY
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GLOBAL ENTREPRENEURSHIP MONITOR (GEM) 2017/18 SOUTH AUSTRALIA REPORT

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TABLE OF CONTENTS

Key Findings	2
1 Introduction and Background	4
1.1 The Australian and SA GEM Survey.....	4
1.2 The GEM Research Approach.....	4
1.3 Dashboard of GEM Indicators.....	6
1.3.1 Societal Values and Perceptions.....	6
1.3.2 Individual Attributes of a Potential Entrepreneur.....	6
1.3.3 Entrepreneurial Activity Indicators.....	6
2 South Australia's Level of Entrepreneurial Activity: Phases	8
2.1 Total Early-Stage Entrepreneurial Activity.....	8
2.2 Established Business Ownership and Discontinuance.....	9
2.3 Potential Entrepreneurs.....	9
2.3.1 Intentions, Abilities, and Beliefs.....	13
2.3.2 Social Perceptions.....	13
2.4 Entrepreneurial Employee Activity.....	13
3 Indicators of the Impact of Entrepreneurial Activity	15
3.1 Job Growth Expectations.....	15
3.2 Innovativeness.....	15
3.3 Internationalisation.....	15
4 South Australia's Entrepreneurship Profile	18
4.1 Women's Participation in Entrepreneurship.....	18
4.2 Age Distribution of Early-Stage Entrepreneurship.....	18
4.3 Skills – Education and Training.....	18
5 Perceptions of Entrepreneurial Ecosystem and Use of Services	20
6 Conclusions and Policy Implications	23

FIGURES

Figure 1: The GEM Conceptual Model.....	5
Figure 2: GEM Model of Business Phases and Entrepreneurship Characteristics.....	5
Figure 3: Total Early-Stage Entrepreneurial Activity (TEA) in 24 Developed Economies.....	10
Figure 4: Different Phases of Entrepreneurial Activity.....	11
Figure 5: New Vs Established Vs Discontinued Business Ownership.....	11
Figure 6: Entrepreneurial Perceptions and Intentions.....	13
Figure 7: Entrepreneurial Societal Attitudes.....	14
Figure 8: Entrepreneurial Employee Activity (EEA).....	14
Figure 9: Growth Expectations of Early-Stage Entrepreneurs.....	16
Figure 10: Innovative Early-Stage Entrepreneurial Activity.....	17
Figure 11: Percentage of Early-Stage Entrepreneurs (TEA) by International Orientation.....	17
Figure 12: Comparison of Female and Male Early Stage Entrepreneurship (TEA) Rates.....	19
Figure 13: Age Distribution of Early-Stage Entrepreneurs (TEA).....	19
Figure 14: Education and Training of Entrepreneurs - SA 2017 Vs Australia 2015.....	20
Figure 15: Highest Level of Education of Entrepreneurs - SA 2017 Vs Australia 2017.....	20
Figure 16: Entrepreneur's Perceptions of Entrepreneurial Ecosystem: SA Vs Australia.....	22
Figure 17: Entrepreneur's Use of Support Services: SA Vs Australia.....	22

TABLES

Table 1: Entrepreneurial Activity Across the Entrepreneurial Process (Percentage of Population Aged 18-64).....	10
Table 2: Perceptions of Entrepreneurial Opportunities, Abilities and Intentions Across Developed Economies.....	12

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ABOUT GEM



GEM is the world's largest study of entrepreneurship.



GEM is different from other studies in that by surveying the adult population it identifies entrepreneurs at the very earliest stages of new business creation.



GEM measures annually the levels and characteristics of entrepreneurial activity, social attitudes, aspirations and framework conditions for entrepreneurship in each economy.



The GEM study has been conducted annually since 1999 and has collected data from across 100 countries, with over 2.8 million observations.

200,000

Adults interviewed globally by GEM every year

54

economies GEM was conducted in 2017.

2,000

Adults interviewed by GEM Australia in 2017

1,675

interviews conducted in South Australia (SA) via an oversample

KEY FINDINGS

In comparison with Australia overall, South Australia's (SA) entrepreneurial profile generally ranks lower, particularly for women and ages 45-54, appears more conservative and is less educated.



Overall, the 2017 Global Entrepreneurship Monitor (GEM) data provides a positive picture of the entrepreneurial activity and climate in Australia when compared with 24 other developed economies¹

- Australia ranks #6 of 24 developed economies² in terms of Total Early-stage Entrepreneurial Activity (TEA) – 12.2 percent of the Australian adult population (18–64 years old)³ were actively engaged in starting and running new businesses in 2017. This is similar to the USA (13.6 percent).
- Australia ranks #7 amongst 24 developed economies for Entrepreneurial Employee Activity (EEA) in established firms, with an estimated 7.8 percent of the adult population engaged in developing or launching new products, a new business unit or subsidiary for their employer.
- Australia's profile of start-up activity (TEA) is particularly strong in the senior age groups. With 9.3 percent of 55–64 years olds engaged in early stage entrepreneurship, Australia ranked #3 amongst developed economies.
- Female TEA is comparatively high. At 9.2 percent it is #7 amongst 24 developed economies

In comparison with Australia overall, South Australia's (SA) entrepreneurial profile generally ranks lower, appears more conservative and is less educated:

- Overall entrepreneurial activity, TEA, is much lower – 9.1 percent of the SA population compared with 12.2 for Australia. This would place SA in the middle of developed economies: #9 of 24 developed economies in terms of level of entrepreneurial activity. This is similar to the UK (8.4 percent).
- Female entrepreneurial participation is particularly low for SA. The Female TEA of 5.6 percent is substantially lower than that for Australia (9.2 percent) and less than half of the SA Male TEA of 12.8 percent. This is again similar to the UK (5.3 percent).
- Relatively low rates of entrepreneurship are particularly pronounced for South Australia among the middle-aged. Entrepreneurial participation by Generation X, particularly 45–54 year olds, is particularly low. At 6.0 percent, it is about half the level across Australia (11.9 percent).

- The average level of skill, in terms of prior relevant education, of SA's entrepreneurs is lower than across Australia. Entrepreneurs in SA are substantially less educated than the Australian benchmark for entrepreneurship education at school and post school, business studies post-school, and science, technology or ICT, engineering or maths (STEM) post-school. The difference is most pronounced for STEM education/training, where 29 percent of SA entrepreneurs have studied STEM, compared with 52 percent across Australia.
- SA's entrepreneurs see substantially less opportunities (43.1 percent) than across Australia (51.4 percent). This said, this remains on par with the average of developed economies (43.4 percent).
- Fear of failure is a substantial deterrent for starting a business, with 40.2 percent of those perceiving good opportunities for start-ups stating they would refrain due to fear of failure. While this is on par with Australia (41.4 percent) and the average of developed economies (40.3 percent), it is substantially higher than benchmarks like the USA (33.4 percent) and UK (35.9 percent).

¹ By developed economies (or countries) we refer to developed economies (rather than less developed or developing economies) according to the World Economic Forum's Global Competitiveness Index classification for economic development levels.

² Throughout this report use of the term "developed economies" (or countries) refers to innovation-driven economies (rather than factor-driven or efficiency-driven economies) according to the World Economic Forum's Global Competitiveness Index classification for economic development levels.

³ GEM statistics are reported for "working-age" adults aged 18–64 unless otherwise stated. While some entrepreneurial activity is present for youth under 18 and seniors over 65 the prevalence is substantially lower.



This said, there are several features of SA's entrepreneurship profile that are strong:

- Youth entrepreneurship is comparatively strong in SA. SA's youth entrepreneurship for the 18–24 age group (9.6 percent) is stronger than across Australia (7.6 percent).
- Senior entrepreneurship is also quite strong in SA. SA's senior entrepreneurship for the 55–64 age group (7.8 percent), while not as strong as across Australia (9.3 percent) is well ahead of the average of developed economies (5.9 percent) and the UK (5.0 percent).
- On average, while smaller in number, SA's start-ups are on average more ambitious in terms of job growth than the rest of Australia. While entrepreneurship rates in general are substantially lower than across Australia, the percentage of adults starting a business that expects to employ at least six people is almost on par with that of Australia.
- Perceived capabilities to start a business is reasonably strong in SA (51.6 percent). While on par with across Australia (49.3 percent), this is substantially stronger than the average for developed economies (43.0 percent) and the UK (48.2 percent), but slightly lower than in the USA (54.3 percent) and Canada (55.6 percent).





1. INTRODUCTION AND BACKGROUND

Most policymakers and academics agree that entrepreneurship is critical to the development and wellbeing of society.

Entrepreneurs create jobs. They drive and shape innovation, thereby speeding up structural changes in the economy, and by introducing new competition they contribute indirectly to increased productivity and overall economic activity. Entrepreneurship is thus a catalyst for economic growth and national competitiveness.

In 2017 GEM conducted its 19th annual survey of the rate and profile of entrepreneurial activity around the globe. GEM interviewed over 200,000 adults aged 18–64 in 54 economies, spanning diverse geographies and a range of development levels. QUT and University of Adelaide participated as the Australian GEM partner, surveying 2,000 Australian adults.⁴ An oversample was conducted in SA, resulting in a sample of 1,675 South Australians.

This report provides a summary of entrepreneurship in Australia as measured by GEM, and benchmarks this against other countries. We compare the level of entrepreneurship in the population across different phases of the entrepreneurial process, and provide a profile of some key characteristics of entrepreneurs and the businesses they are starting. We also report on some of the institutional and framework conditions that support entrepreneurship.

1.1 The Australian and SA GEM Survey

The Australian GEM study was conducted by Q&A Market Research on behalf of The University of Adelaide and Queensland University of Technology. A total of 2,000 phone interviews were conducted with adults aged 18–99 (1,813 mobile phone and 187 landline), all by random digit dialling. For the South Australian oversample, a total of 1,503 phone interviews were conducted with adults aged 18–99; 1,350 mobile phones were randomly selected from a list provided by ReachTEL and 153 landline calls were generated by random digit dialling.

This report is harmonised with the global GEM report by reporting on the working age population 18–64. The Australian sample consists of 1,607 respondents. The SA comparative sample consists of 1,386 18–64 respondents, 1,251 from the SA oversample and 135 SA residents from the Australian sample.

This report compares SA with Australia, the average of the 24 developed economies that participated in the 2017/18 GEM study, and the USA, UK and Canada. These economies were chosen because the profile of entrepreneurship in these former Anglo-Saxon countries have typically been most similar to that of Australia in earlier GEM studies.

1.2 The GEM research approach⁵

Specific contextual factors (social, political, and economic) are influential in creating unique business and entrepreneurial contexts. The relationships among the various key determinants of the entrepreneurial framework conditions – including the processes by which entrepreneurship, disruptive innovation in products and services, business renewal, job creation, economic expansion, and social wellbeing, among others – are depicted by the GEM’s conceptual framework (see Figure 2).

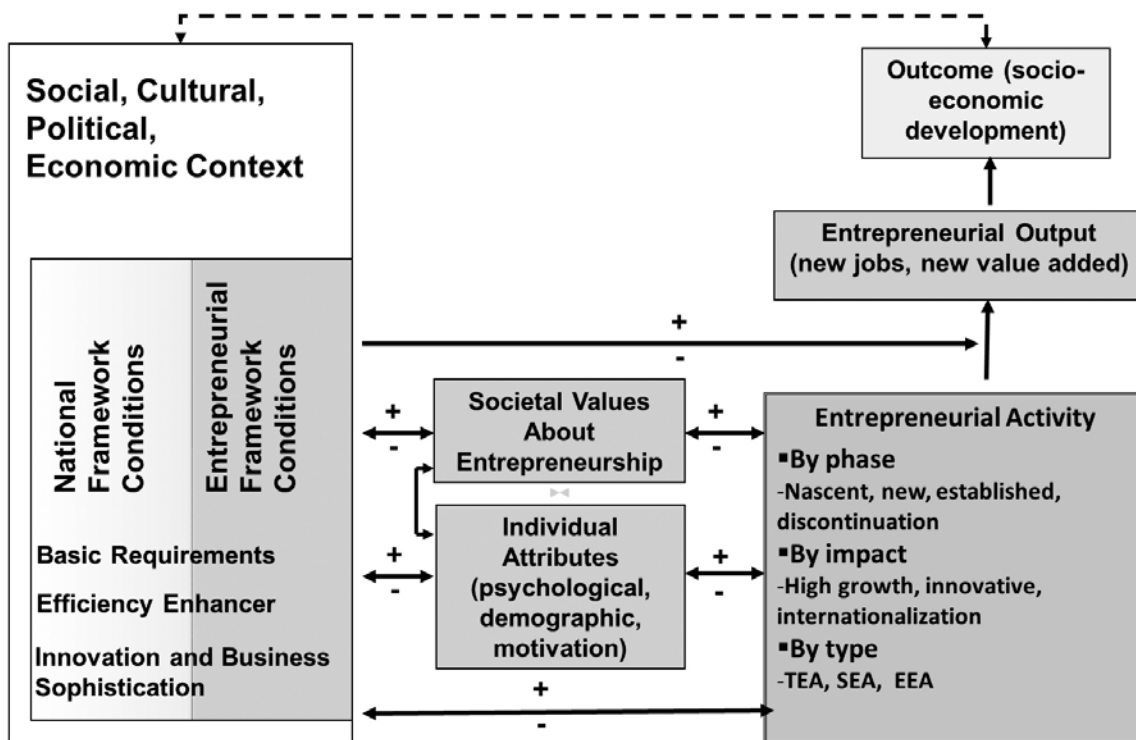
The GEM conceptual framework (Figure 1) is based on the assumption that national economic growth is the result of the interdependencies between the entrepreneurial framework conditions and the personal traits and capabilities of individuals to identify and seize opportunities. The GEM survey assists in identifying factors that encourage or limit entrepreneurial activity, measuring the extent of a variety of entrepreneurial activities and offering policy implications in order to enhance entrepreneurial capacity in local, regional and national economies.

GEM’s approach is unique in several ways: First, it collects primary data on a global basis; secondly, individuals are surveyed about a variety of key issues regarding entrepreneurial aspirations, attitudes,

⁴ Note this is a relatively small survey sample, and thus the results may be associated with large standard errors.

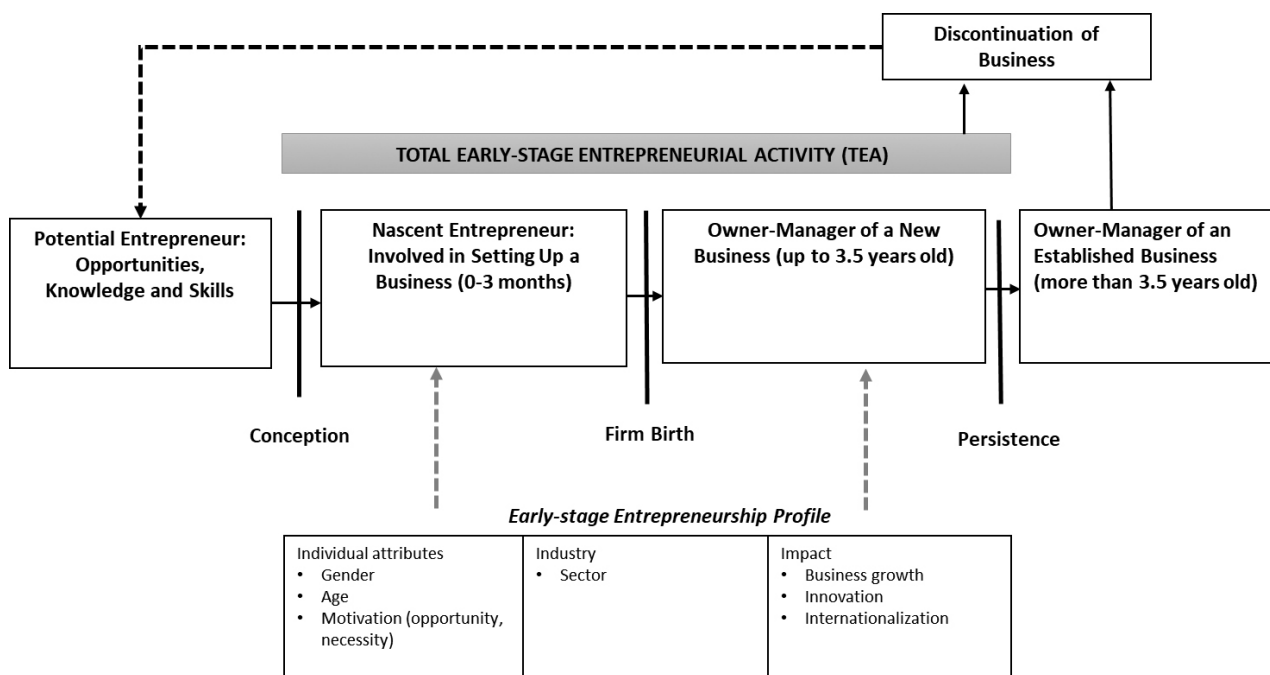
⁵ This section is reproduced from Global Entrepreneurship Monitor: Global Report 2017/18. Global Entrepreneurship Research Association (GERA), 2018.

FIGURE 1 The GEM conceptual model



Source: GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 2 GEM model of business phases and entrepreneurship characteristics



Source: GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

intentions and activities; thirdly, the entrepreneurship phenomenon is assessed along the entrepreneurship cycle, to include a cross-section of entrepreneurs from conception of entrepreneurial opportunities to venture maturity or, alternatively to its demise (see Figure 2).

1.3 Dashboard of GEM Indicators

The dashboard of GEM indicators is based on the GEM conceptual framework featuring, on the one hand, the entrepreneurial framework conditions and, on the other hand, detailed key entrepreneurship measures. Overall, this group of measures provides a comprehensive set of variables that contribute toward the impact entrepreneurship has on a society and the extent to which society supports this activity. The following is a list of these measures:

1.3.1 Societal values and perceptions

Good career choice. The percentage of the adult population aged 18–64 years who believe that entrepreneurship is a good career choice.

High status of successful entrepreneurs. The percentage of the adult population aged 18–64 years who believe that high status is afforded to successful entrepreneurs.

Media attention for entrepreneurship. The percentage of the adult population aged 18–64 years who believe that there is a lot of positive media attention for entrepreneurship in their country.

1.3.2 Individual attributes of a potential entrepreneur

Perceived opportunities. The percentage of the population aged 18–64 years who see good opportunities to start a business in the area where they live.

Perceived capabilities. The percentage of the population aged 18–64 years who believe they have the required skills and knowledge to start a business.

Entrepreneurial intention. The percentage of the population aged 18–64 years (individuals involved in any stage of entrepreneurial activity excluded) who are latent entrepreneurs and intend to start a business within three years).

Rate of fear of failure. The percentage of the population aged 18–64 years perceiving good opportunities who indicate that fear of failure would prevent them from starting up a business.

1.3.3 Entrepreneurial activity indicators

Total Early-stage Entrepreneurial Activity (TEA). The percentage of the adult population aged 18–64 years who are in the process of starting a business (a nascent entrepreneur) or started a business less than 42 months old before the survey took place (owner-manager of a new business). This indicator can be enriched by providing information related to motivation (opportunity vs. necessity), inclusiveness (gender, age), and impact (business growth in terms of expected job creation, innovation, and industry sectors).

Established business ownership rate. The percentage of the adult population aged 18–64 years who are currently an owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 months.

Business discontinuation rate. The percentage of the adult population aged 18–64 years that have discontinued a business in the past 12 months, either by selling, shutting down, or otherwise discontinuing an owner/management relationship with the business.

Entrepreneurial Employee Activity (EEA). The percentage of the adult population aged 18–64 years who, as employees, have been involved in entrepreneurial activities such as developing or launching new goods or services, or setting up a new business unit, a new establishment, or a subsidiary.



2. SOUTH AUSTRALIA'S LEVEL OF ENTREPRENEURIAL ACTIVITY: PHASES

In this section, we compare the rate of individual participation in entrepreneurship in SA with that in Australia and other countries.

We therefore present the findings for various phases of entrepreneurship: Potential entrepreneurs who have intentions to found a business, those early-stage entrepreneurs who are actually starting and running a new business, owners of established businesses, individuals who disengaged from their businesses, and informal investment by business angels.

2.1 Total Early-Stage Entrepreneurial Activity

TEA is the primary barometer of the level of entrepreneurial activity assessed by the GEM study. Based on this study the scale of global entrepreneurship is clearly evident. GEM estimates that 9.2 percent of the adult population, averaged across the 24 participating developed economies, were early-stage entrepreneurs actively engaged in starting and running new businesses in 2017.

Table 1 shows, for each developed economy participating in GEM, the percentage of individuals in the adult population who are engaged in the various phases of entrepreneurship. We have distinguished between individuals who are in the process of starting a business (nascent

entrepreneurship); those operating a new business, which is up to three and a half years old (baby business ownership); those operating an established business; and individuals with discontinued businesses. The nascent entrepreneurship rate combined with the new business ownership rate forms the TEA within an economy.

Figure 3 compares the TEA for SA and all 24 developed economies participating in GEM 2017/18. SA has a TEA of 9.1 percent, placing it close to the average of the group of developed economies (#9 of 24), similar to the UK. Australia's TEA is substantially higher (12.2 percent) and ranks #6, similar to the USA.

Figure 4 compares SA by breaking down TEA into its components: nascent businesses (i.e., start-up phase) and new businesses (<3.5 years old). It is evident that SA is substantially lower than Australia in terms of both nascent entrepreneurs (4.5 vs 6.4 percent) and new businesses (4.2 vs 5.9 percent). This said, SA's overall TEA is similar to the average of developed economies (9.1 percent vs 9.2 percent), a little behind in nascent businesses, but ahead in terms of new business.

⁶ Davidsson, P Steffens, PR Gordon, SR and Reynolds, P (2008) Anatomy of New Business Activity in Australia: Some Early Observations from the CAUSEE Project, QUT working paper, Brisbane, <http://eprints.qut.edu.au/13613/>



2.2 Established business ownership and discontinuance

Figure 5 displays the estimated TEA, established business ownership rate (>3.5 year old) and discontinued business (in last 3 years) for SA and comparison economies.

Although SA's TEA is lower than that of Australia, the rate of established business ownership is approximately equal (8.7 percent and 9.0 percent respectively). Hence, while SA's entrepreneurship lags behind the rest of Australia, business ownership doesn't.

We also see that business discontinuation is also lower for SA (2.9 percent) than Australia (3.8 percent). Together this gives the picture that SA has a substantial and stable small business sector, with fewer entries and exits than compared with the rest of Australia.

We note that the rate of discontinuation is approximately half the level of established businesses for most of the comparison economies (except Canada which seems abnormally high). This rate of discontinuances simply reflects a healthy renewal or churn of the business population. Indeed, many business closures are not failures but successful business exits or result from better alternative opportunities for the founders. Other research conducted in Australia by ACE⁶ has identified that Australia has very few closures that could be considered as disastrous.

2.3 Potential entrepreneurs

Arguably, every individual has the potential to become an entrepreneur. Some of them will venture into entrepreneurship while others, for various reasons, will not. It is therefore important to understand the influence of an individual's perception of abilities as well as the perception of societal attitudes towards entrepreneurship, which together impact an individual's vocational choice.

Table 2 shows that the percentage of individuals in the adult population of each economy differs in terms of entrepreneurial intentions, abilities and beliefs about entrepreneurship. Entrepreneurial intentions are defined by the percentage of individuals who expect to start a business within the next three years (those already entrepreneurially active are excluded from this measure). Perceived opportunities reflect the percentage of individuals who believe there is occasion to start a venture in the next six months in their immediate environment. Perceived capabilities reflect the percentage of individuals who believe they have the required skills, knowledge and experience to start a new venture. The measure of fear of failure (when it comes to starting one's own venture) only applies to those who perceive opportunities.



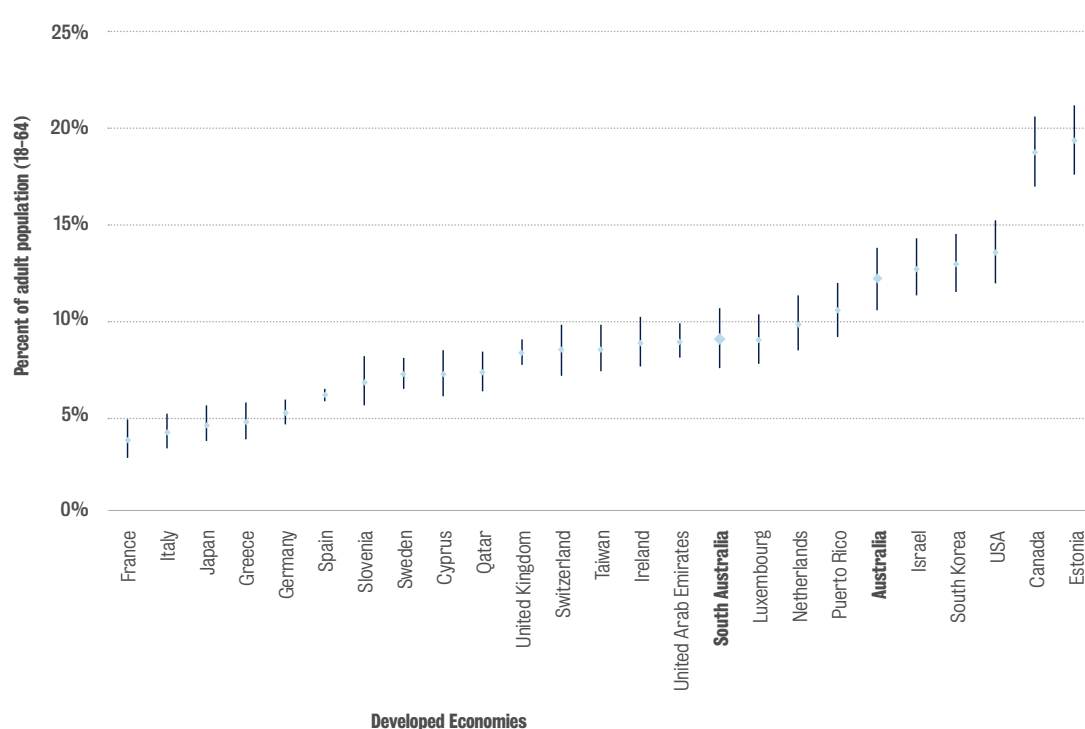
TABLE 1 Entrepreneurial activity across the entrepreneurial process (percentage of Population Aged 18–64)

Economy	Nascent entrepreneurship rate		New business ownership rate		Early-stage entrepreneurial activity (TEA)		Entrepreneurial Employee Activity (EEA)		Established business ownership rate		Discontinuation of businesses*	
	Score	Rank/25	Score	Rank/25	Score	Rank/25	Score	Rank/24	Score	Rank/25	Score	Rank/24
South Australia	4.5	12	4.2	9T	9.1	9T	6.6	13	8.3	8	1.6	21
Australia	6.4	7	5.9	4	12.2	6	7.8	6	9.0	5	3.8	9
Canada	11.3	2	8.1	1	18.8	2	8.2	3	6.2	14	6.9	2
Cyprus	3.6	15T	3.8	11	7.3	17T	1.8	19	8.9	6	4.3	7
Estonia	13.4	1	6.2	3	19.4	1	9.1	1	11.4	3T	4.4	6
France	2.9	18	1.1	22	3.9	24	3.9	13	3.6	20	3.3	10T
Germany	3.4	16	2.0	18	5.3	20	5.7	10	6.1	15	1.6	19
Greece	2.3	21	2.6	16T	4.8	21	0.9	22	12.4	1	5.1	4
Ireland	5.8	9	3.3	13	8.9	11	5.5	11	4.4	18	3.3	10T
Israel	8.4	5	5.1	6T	12.8	5	8.6	2	3.3	21T	4.8	5
Italy	2.7	20	1.7	19	4.3	23	2.4	17	6.0	16	2.1	17
Japan	3.2	17	1.6	20	4.7	22	2.8	14	6.3	13	1.5	20
Korea	6.2	8	6.9	2	13.0	4	1.9	18	11.4	3T	2.7	13T
Luxembourg	6.7	6	2.6	16T	9.1	9T	8.0	5T	3.3	21T	3.2	11
Netherlands	4.7	11T	5.4	5	9.9	8	7.6	7T	8.6	7	3.1	12
Puerto Rico	9.5	3	1.4	21	10.6	7	2.6	15	1.6	22	2.7	13T
Qatar	4.7	11T	2.8	15	7.4	16	2.5	16	1.3	23	5.8	3
Slovenia	4.0	14T	3.0	14	6.9	18	6.0	9	6.8	11	2.3	16
Spain	2.8	19	3.5	12	6.2	19	1.4	21	7.1	10	1.9	18
Sweden	5.3	10	2.1	17	7.3	17T	6.2	8	4.2	19	2.5	15
Switzerland	4.7	11T	3.9	10	8.5	14	4.8	12	10.5	4	1.1	21
Taiwan	3.6	15T	5.0	7	8.6	13	8.1	4	12.1	2	4.0	8T
United Arab Emirates	4.0	14T	5.1	6T	9.0	10	1.7	20	5.6	17	9.2	1
United Kingdom	4.4	13	4.2	9T	8.4	15	8.0	5T	6.7	12	2.6	14
USA	9.4	4	4.6	8	13.6	3	7.6	7T	7.8	9	4.0	8T
Total	5.5		3.8		9.2		5.1		6.9		3.6	

*Discontinuation of Businesses – Percentage of Population Aged 18–64

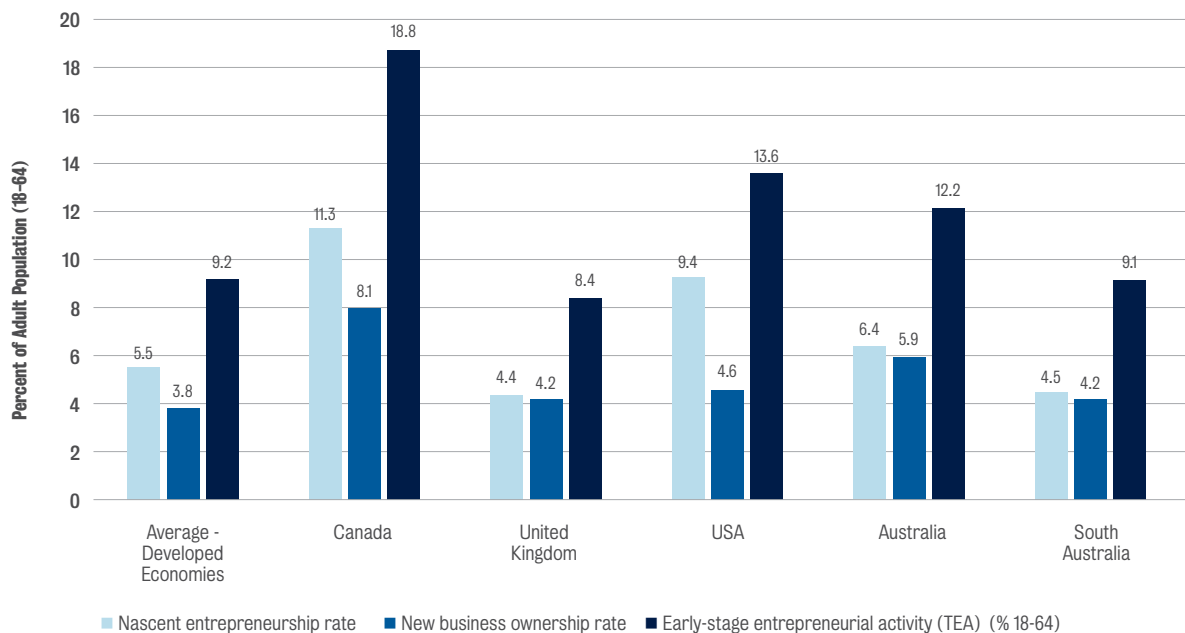
Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 3 Total Early-Stage Entrepreneurial Activity (TEA) in 24 developed economies



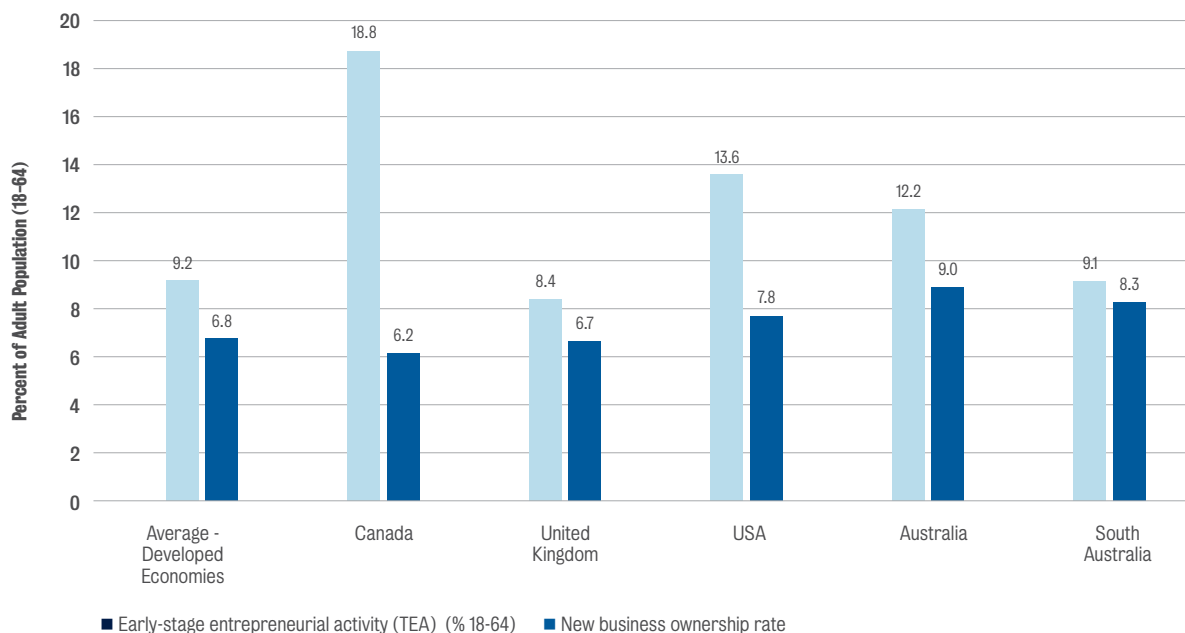
Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 4 Different phases of entrepreneurial activity



Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 5 New vs Established Business Ownership



Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

TABLE 2 Perceptions of entrepreneurial opportunities, abilities and intentions across developed economies (percentage of Population Aged 18-64)

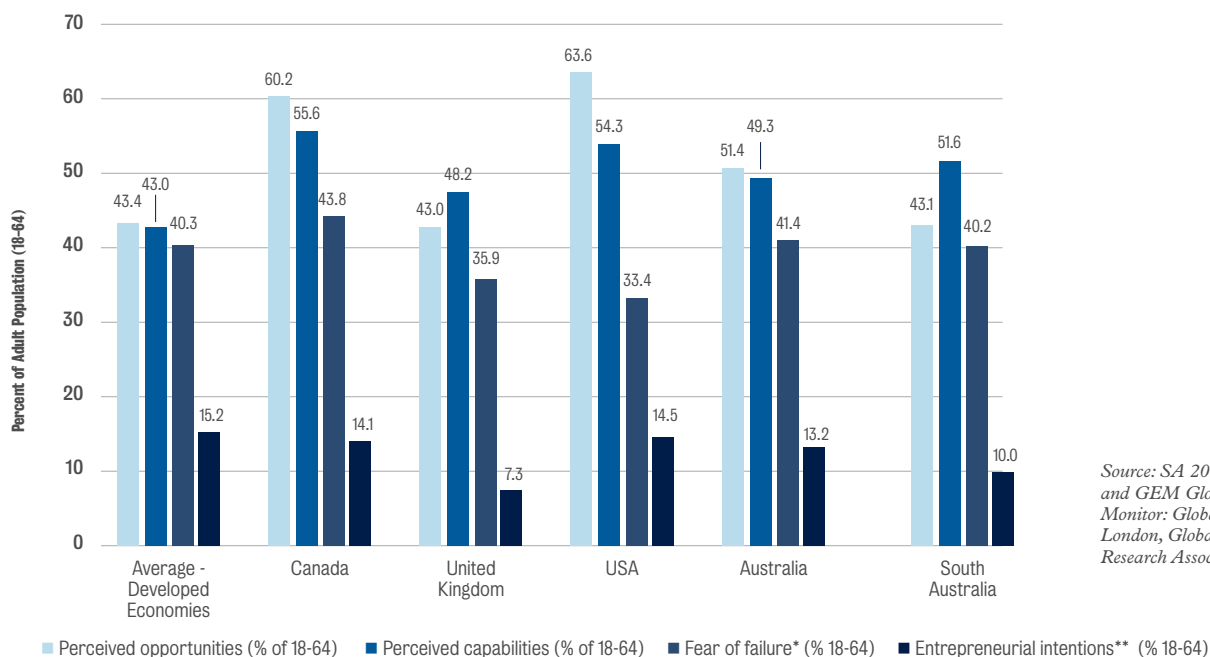
Economy	Perceived opportunities		Perceived capabilities		Fear of failure*		Entrepreneurial intentions**	
	Score	Rank/24	Score	Rank/24	Score	Rank/24	Score	Rank/24
South Australia	43.1	13	51.6	5	40.2	11	10.0	18
Australia	51.4	8	49.3	6	41.4	9	13.2	13
Canada	60.2	5	55.6	2	43.8	7	14.1	12
Cyprus	51.0	9	46.4	9	55.9	2	16.7	8
Estonia	61.0	4	49.7	5	31.8	18T	18.1	6
France	34.1	18	36.3	20	39.1	12	17.6	7
Germany	42.0	14	37.5	19	36.3	14	7.2	20
Greece	13.7	23	43.4	14	55.5	3	7.1	21
Ireland	44.5	12	42.2	15	39.2	11T	11.9	14
Israel	58.3	6	44.1	13	48.0	5	26.4	2
Italy	28.8	20	30.4	22	49.4	4	10.3	17
Japan	7.4	24	10.8	24	41.2	10	3.7	23
Korea	35.3	16	45.7	10	32.2	17	22.8	4
Luxembourg	54.8	7	40.9	18	47.0	6	11.0	15
Netherlands	64.1	2	44.6	12	29.7	19	8.1	18T
Puerto Rico	28.0	21	46.7	8	28.6	21	18.3	5
Qatar	45.6	11	41.1	17	41.9	8	15.7	9
Slovenia	34.6	14	53.3	4	31.8	18T	14.2	11
Spain	31.9	19	44.8	11	39.2	11T	5.6	22
Sweden	79.5	1	34.5	21	36.7	13	8.1	18T
Switzerland	47.2	10	42.1	16	29.5	20	10.5	16
Taiwan	26.6	22	25.9	23	39.2	11T	25.7	3
United Arab Emirates	35.5	15	64.8	1	61.1	1	56.3	1
United Kingdom	43.0	13	48.2	7	35.9	15	7.3	19
USA	63.6	3	54.3	3	33.4	16	14.5	10
Total	43.4		43.0		40.3		15.2	

*As percentage of population aged 18-64 that perceive good opportunities to start a business.

**As percentage of population aged 18-64 that is not currently involved in entrepreneurial activity.

Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 6: Entrepreneurial perceptions and intentions



Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

*As percentage of population aged 18-64 that perceive good opportunities to start a business.

**As percentage of population aged 18-64 that is not currently involved in entrepreneurial activity.

2.3.1 Intentions, abilities, and beliefs

As displayed in Figure 6, one area of concern for SA is the relatively low number of individuals who perceive good opportunities to start a business (43.1 percent). This is substantially lower than across Australia (51.4 percent) and the USA and Canada (63.6 and 60.2 percent respectively). This said, this measure of perceived entrepreneurial opportunities is almost identical to the average across developed economies.

One other point of concern is that SA (40.2 percent), similar to Australia (41.4 percent), shows a relatively high rate of non-entrepreneurial population who reported perceived fear of failure as a reason for not starting their own firm. This is substantially higher than the USA and UK (33.4 percent and 35.9 percent respectively). This said, fear of failure is comparable with the developed economies average (40.3 percent) and slightly lower than in Canada (43.8 percent).

Findings also reveal that perception of abilities to start a business is not a concern. Just over half (51.6 percent) of South Australians believe that they have the necessary skills and capabilities. This is almost identical to across Australia (49.3 percent), and well above the average of

developed economies (43.0 percent). This said, perceived capabilities are lower than the USA (54.3 percent) and Canada (55.6 percent).

As shown in Figure 6 (rightmost bar) SA (10.0 percent) has a lower level of intentions than across Australia (13.2 percent). This is not surprising given the lower levels of entrepreneurship currently in SA.

2.3.2 Social perceptions

Social values play a key role in determining whether individuals are behaving entrepreneurially or not.⁷ In GEM, social values are captured through three dimensions:

- if most people consider starting a new business a desirable career choice
- if those individuals who are successful at starting a new business enjoy a high level of status and respect in society
- if media attention to entrepreneurship (by promoting successful ventures) contributes or not to developing an entrepreneurial culture in a country.

Both Australia and SA rank approximately equal to the average of developed economies in terms of social perceptions of entrepreneurship as a good career choice, and that successful entrepreneurs attain high status in society. However, it appears that

entrepreneurs in Australia and SA receive considerably more positive media attention than the average of developed economies or the UK (see Figure 7).

2.4 Entrepreneurial Employee Activity

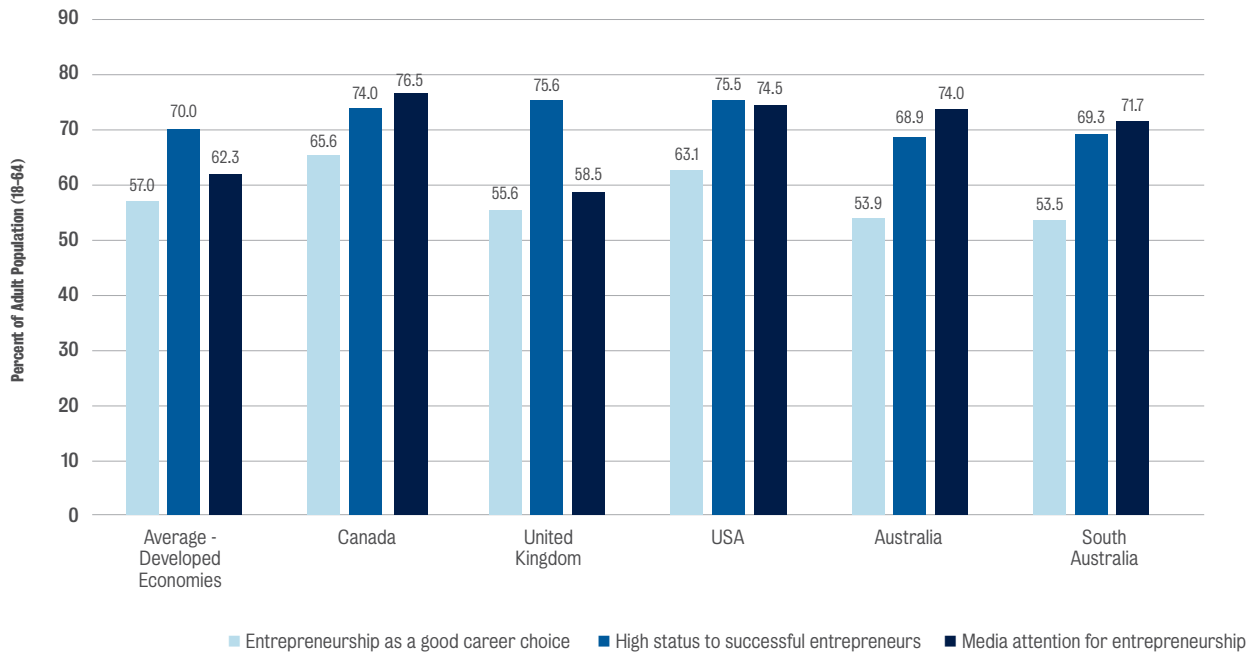
The GEM consortium has also measured Entrepreneurial Employee Activity (EEA) since 2011.⁸ This choice acknowledges the fact that entrepreneurial activity is not restricted to new firms but can also take place in already established firms and organisations. Within these established organisations GEM identifies employees who play a leading role in the creation of new business activities in their firm. This includes a broad range of activities, such as developing or launching new goods or services, or setting up a new business unit, a new establishment or a subsidiary for their main employer.

Figure 8 shows the percentage of the adult population engaged in entrepreneurial activities as employees. SA has a lower rate on this measure in adult population entrepreneurship activities (6.6 percent) compared with across Australia (7.8 percent). This said, this level of EEA remains healthy, 1.2 times higher than the average for developed economies.

⁷ Kwon, SW, & Arenius, P (2010), Nations of entrepreneurs: A social capital perspective. Journal of Business Venturing, 25(3), 315-330.

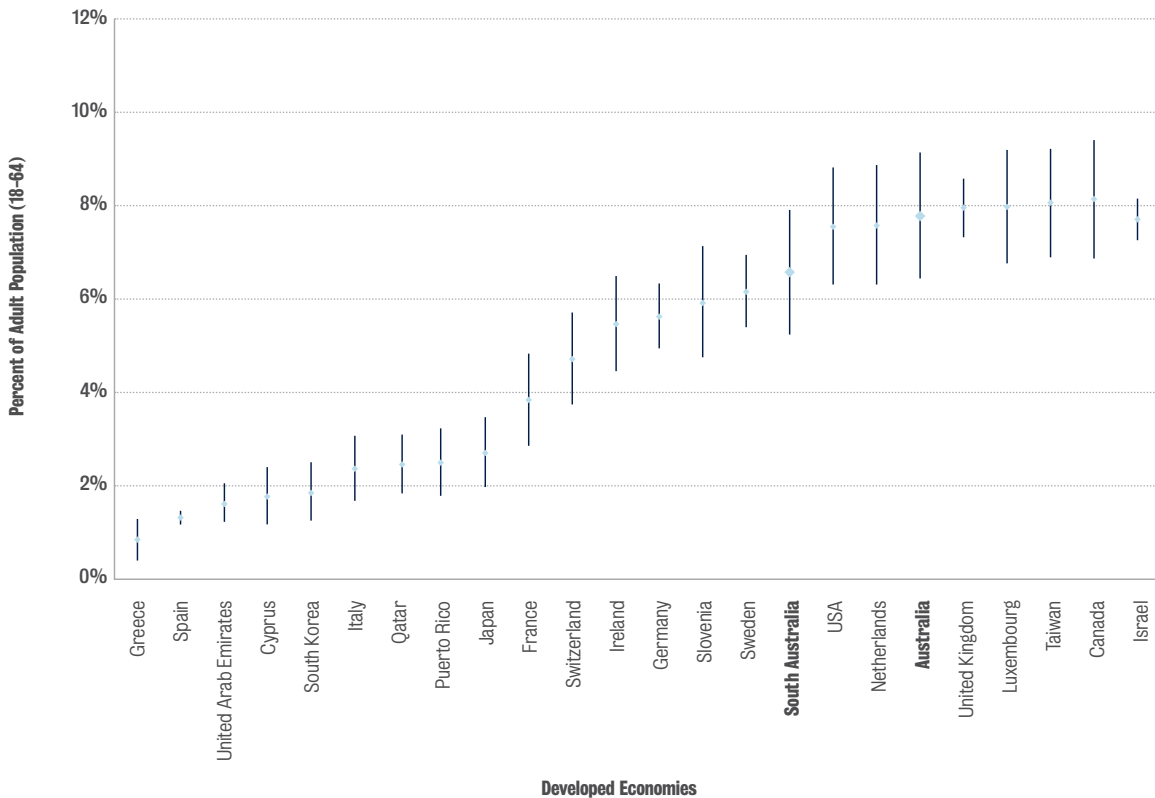
⁸ For a detailed account of this topic, see Bosma, N, Wennekers, S and Amorós, JE (2011), Global Entrepreneurship Monitor 2011 Extended Report: Entrepreneurs and Entrepreneurial Employees Across the Globe, <http://www.gemconsortium.org/report/48326>.

FIGURE 7: Entrepreneurial societal attitudes



Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 8: Entrepreneurial Employee Activity (EEA)



Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

3. INDICATORS OF THE IMPACT OF ENTREPRENEURIAL ACTIVITY

Businesses are different and so too is their impact on the national economy.

This section profiles the potential impact of entrepreneurship in Australia by exploring several indicators on the size and quality of business ventures being started by Australian entrepreneurs, namely:

- the perceived job-creation potential of their businesses
- the perceived innovativeness of their business ideas
- the entrepreneur's ambition to serve international markets.

3.1 Job growth expectations

Growth expectations measure how many employees the entrepreneurs expect to employ in five years. Research has shown that growth expectations are indeed a good indicator of later actual firm growth.⁹This measure can be interpreted as the expected direct contribution of new firms to job growth in SA.

Figure 9 presents the TEA rate at three levels of growth expectations: 0 (no employment expectations), 1–5 (low growth expectations), and 6 or more employees (medium to high growth expectations).

SA is generally well placed compared with other developed economies, but falls behind both the rest of Australia and the USA. Compared with the rest of Australia, the largest difference is self-employment (0 jobs) which is about half the rate of Australia (2.3

percent vs 4.3 percent). For higher growth firms, SA is just a little below Australia: 3.4 percent vs 4.5 percent for 1–5 jobs and 3.0 percent vs 3.4 percent for 6+ jobs. Hence, lower self-employment accounts for the majority of the reason for a lower TEA in SA compared with Australia. For the more ambitious firms (6+ jobs), SA is only marginally behind the rest of Australia.

Against international benchmarks, SA (and Australia) outperforms the UK and average of developed economies, but falls substantially behind the USA and Canada.

3.2 Innovativeness

Innovative businesses are regarded as agents of change as they introduce new products or services into the market, thereby fostering product variety for customers and contributing to national competitiveness. Therefore, an important dimension of innovativeness is the level of novelty from the perspective of the market and the industry. As such, GEM adopts a relative and context-dependent assessment of the innovativeness of the new business opportunity. GEM asks entrepreneurs whether their product or service is new to some or all customers and whether few or no other businesses offer the same product.

Figure 10 presents the rate of innovative early-stage entrepreneurial activity. With 2.6 percent of the adult population starting firms with innovative products, SA is towards the middle of developed economies, comparable with the average for developed economies (2.9 percent) and just a little ahead of the UK (2.3 percent). However, as shown, SA lags behind Australia (3.5 percent), the USA (4.9 percent) and substantially behind the international leader Canada (8.1 percent).

3.3 Internationalisation

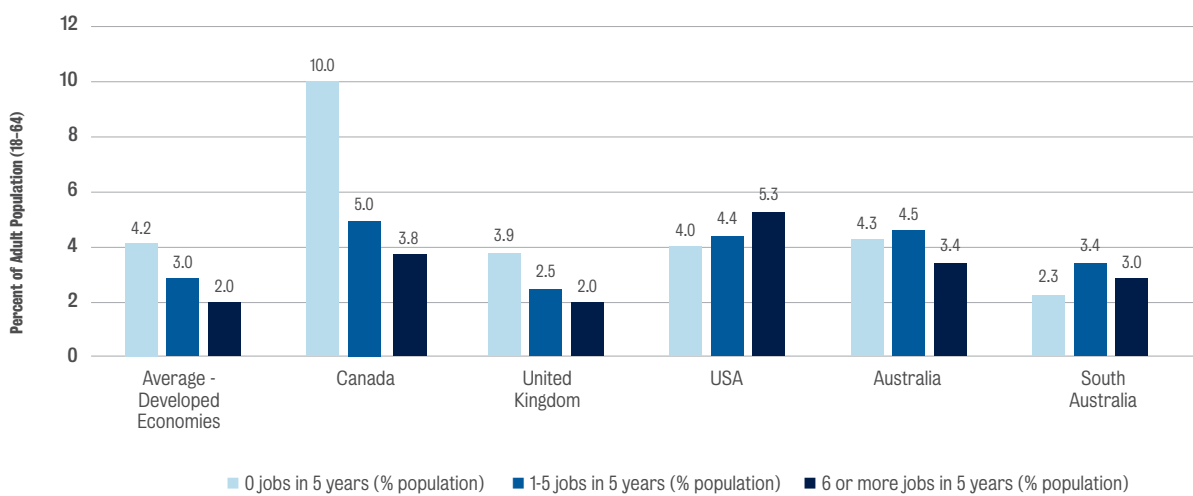
Internationalisation measures the extent to which early-stage entrepreneurs sell to customers outside their domestic market. In general, serving international markets signals both high ambitions and international competitiveness of a country's early-stage entrepreneurs.

Unlike the other dimensions of the impact of our early-stage entrepreneurs, both South Australian and Australian entrepreneurs rank below average with respect to international orientation. As illustrated in Figure 11, just 8 percent and 9 percent respectively aim for a substantial share of revenue (>25 percent) from international markets, compared with an average of 26 percent for other developed economies. This is much lower than in the USA, UK and Canada (17 percent, 15 percent and 37 percent respectively). However, we must keep in mind that developed economies in GEM are dominated by countries with many close developed country neighbours such as in Europe and North America.

⁹ For example: Baum, R, Locke, E, and Smith, K (2001) Multidimensional Model of Venture Growth, in *The Academy of Management Journal*, 44(2), pp. 292–303; Wiklund, J and Shepherd, D (2003), *Aspiring for, and Achieving Growth: The Moderating Role of Resources and Opportunities*, *Journal of Management Studies* 40(8), pp. 1919–1941.

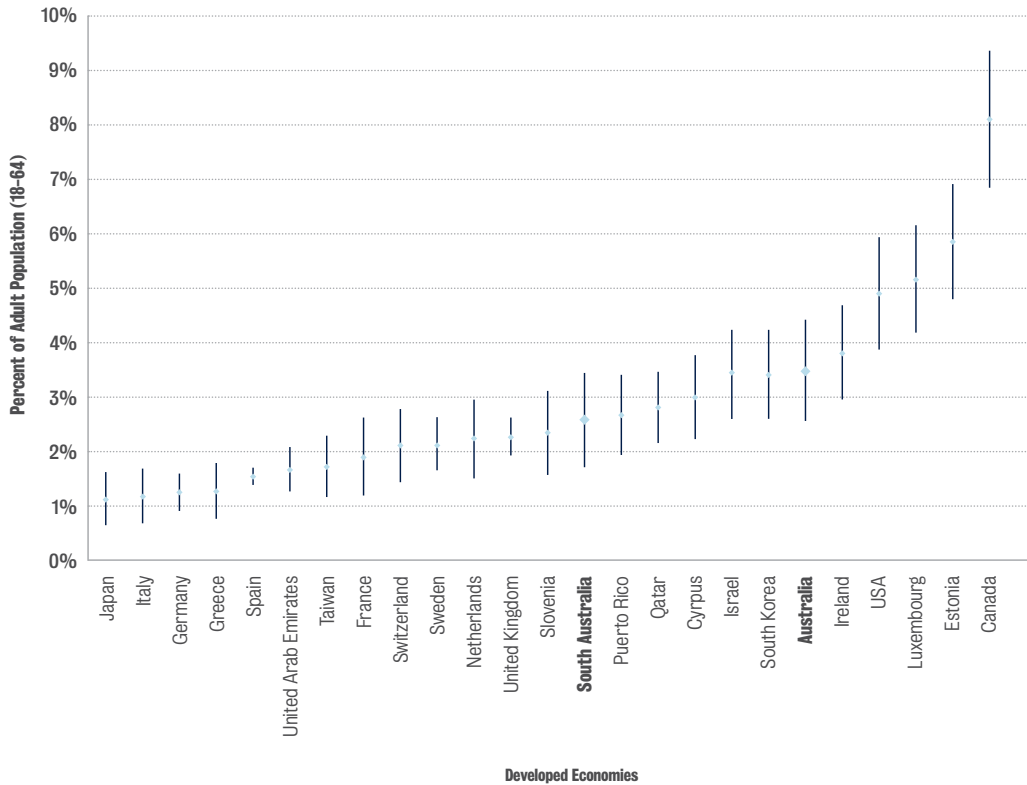


FIGURE 9: Growth expectations of early-stage entrepreneurs



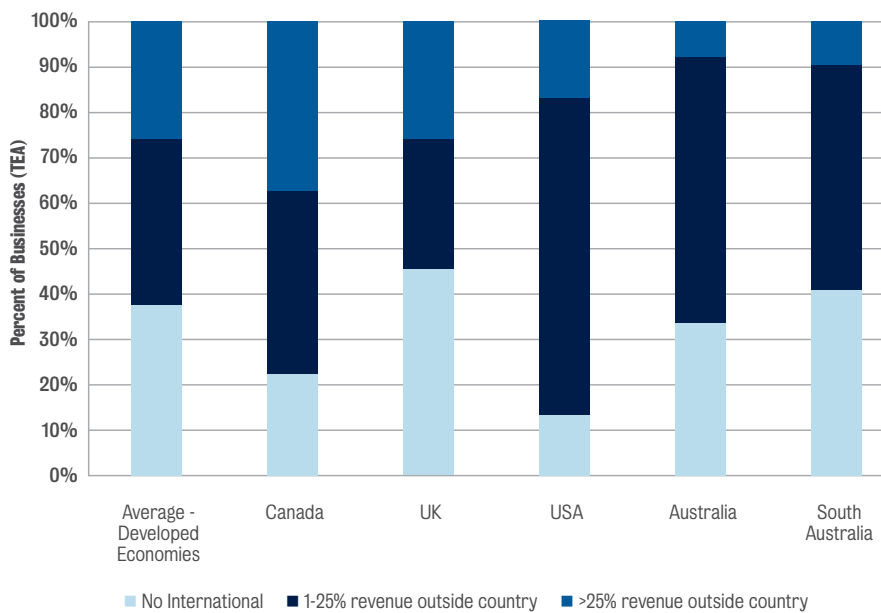
Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 10: Innovative early-stage entrepreneurial activity



Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 11: Percentage of early-stage entrepreneurs (TEA) by international orientation



Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

4. SOUTH AUSTRALIA'S ENTREPRENEURSHIP PROFILE

Entrepreneurs do not form a homogeneous group, differing between each other in many respects. Therefore, a simple count of entrepreneurs does not fully describe the diverse profile of entrepreneurship and its impact on the South Australian economy.

This section looks at characteristics of SA's entrepreneurship profile in terms of inclusiveness by gender and age, and level of skills as indicated by education and training.

Inclusiveness refers to access to entrepreneurial opportunities within a society. If two individuals have equal skills and resources then access to entrepreneurial opportunities should ideally not be discriminated by individual characteristics such as gender and age.

4.1 Women's participation in entrepreneurship

Figure 12 presents the TEA rate for the male and female adult population across the developed economies. We can see that in SA female participation in entrepreneurship is particularly poor. With only 5.6 percent of adult females involved in entrepreneurship, this is only about half that of SA males (12.8 percent), and well below female participation across Australia (9.2 percent) and the average of developed economies (7.1 percent). Again, we observe the pattern in SA is comparable to that of the UK.

4.2 Age distribution of early-stage entrepreneurship

As Figure 13 reveals, early-stage entrepreneurship is more common in the mid-career ages of 25–44 years than in either the younger or older age groups. This pattern is consistent across most parts of the globe.

While SA also has the highest participation for ages 25–44 years, the age distribution is not typical. Participation is particularly high for youth (18–24), but particularly low for middle-aged (45–54).

SA is particularly low in the 45–54 age category. At just 6.0 percent, this is about half the rate across Australia overall (11.9 percent) and well below the average of developed economies (8.6 percent).

SA's youth entrepreneurship (9.6 percent) is higher than across Australia (7.6 percent) and the average of the developed economies (7.6 percent). While this is encouraging, it falls well short of Canada (17.2 percent).

SA's and Australia's age profile of start-up activity is also reasonably high in the oldest age group. With 7.8 percent of the 55–64 age category engaged in early stage entrepreneurship, SA is ranked #7 amongst developed economies. This said, it is not as high as across Australia, which is ranked #3 at 9.3 percent.

4.3 Skills – Education and Training

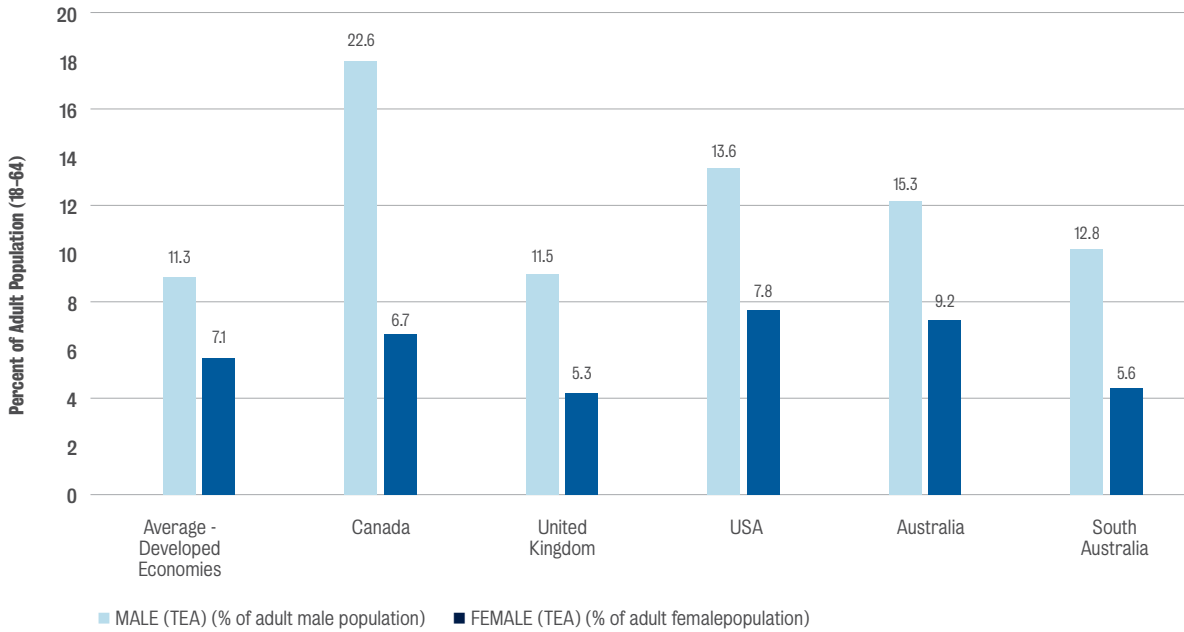
A special topic about education and training of entrepreneurs was included in the 2017 SA GEM study. Comparisons are not available for 2017, but the same special topic was included in the 2015 Australian GEM study.

Figure 14 compares the findings for 2017 SA and 2015 Australian studies. Specifically, it compares the percentage of entrepreneurs (TEA) that had a) received education in entrepreneurship or how to start a business at school; b) formal post-school education or courses in entrepreneurship or how to start a business; c) formal post-school education or courses in business studies; and d) formal post-school education or courses in science, technology or ICT, engineering or maths (STEM).

It is clear from Figure 14 that entrepreneurs in SA are substantially less educated than the Australian benchmark for all four categories of education/training. The difference is most pronounced for STEM education/training, where 29 percent of SA entrepreneurs have studied STEM, compared with 52 percent across Australia.

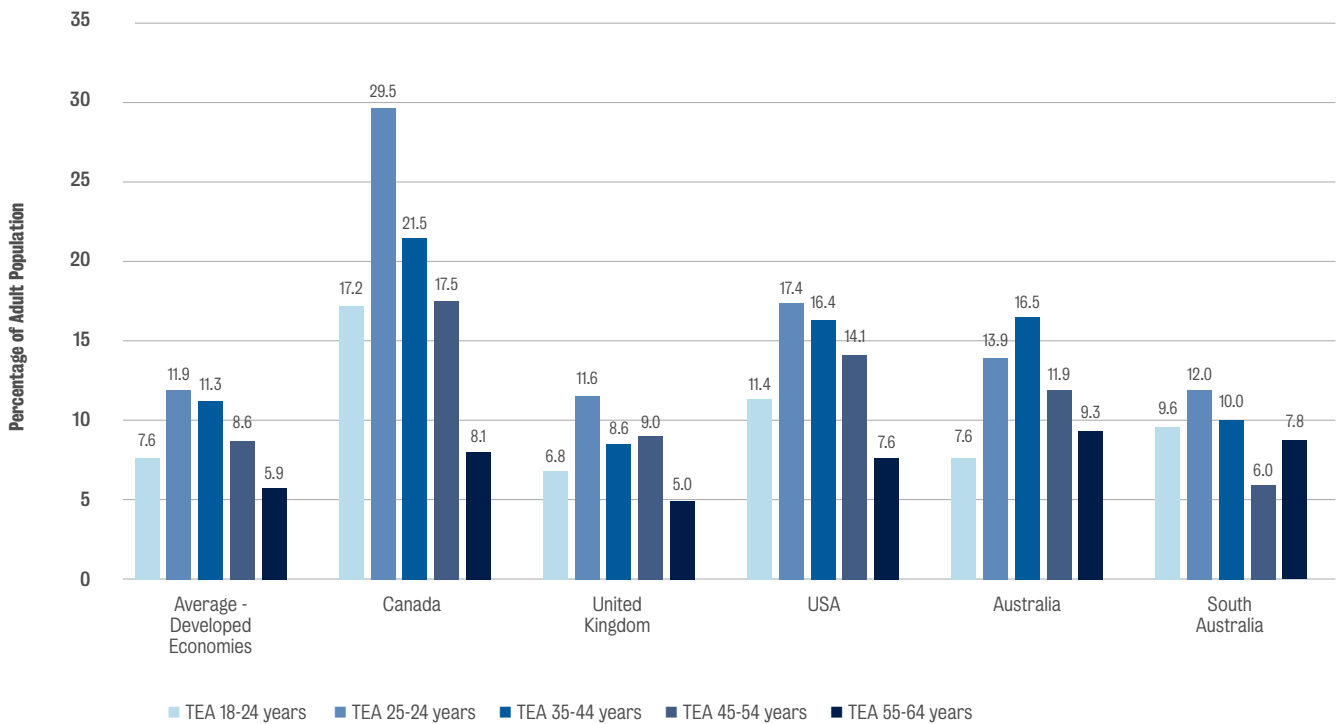
Figure 15 also compares the highest level of education of entrepreneurs in SA versus Australia (both based on the 2017/18 GEM study). The data reveals that SA has a higher proportion of entrepreneurs with school level education compared with Australia (33.1 percent vs 24.2 percent), and lower levels of VET or diploma level (27.4 percent vs 30.6 percent) and Bachelor Degree (22.6 percent vs 28.0 percent). Levels of Postgraduate education are approximately the same (17 percent).

FIGURE 12: Comparison of female and male early stage entrepreneurship (TEA) rates



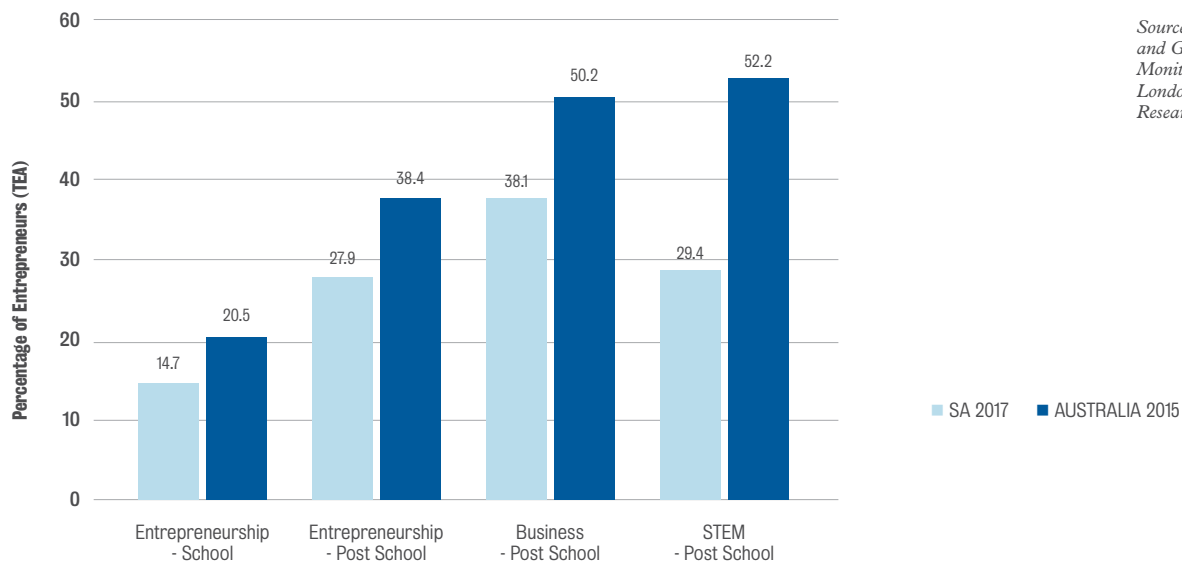
Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 13 Age distribution of early-stage entrepreneurs (TEA)



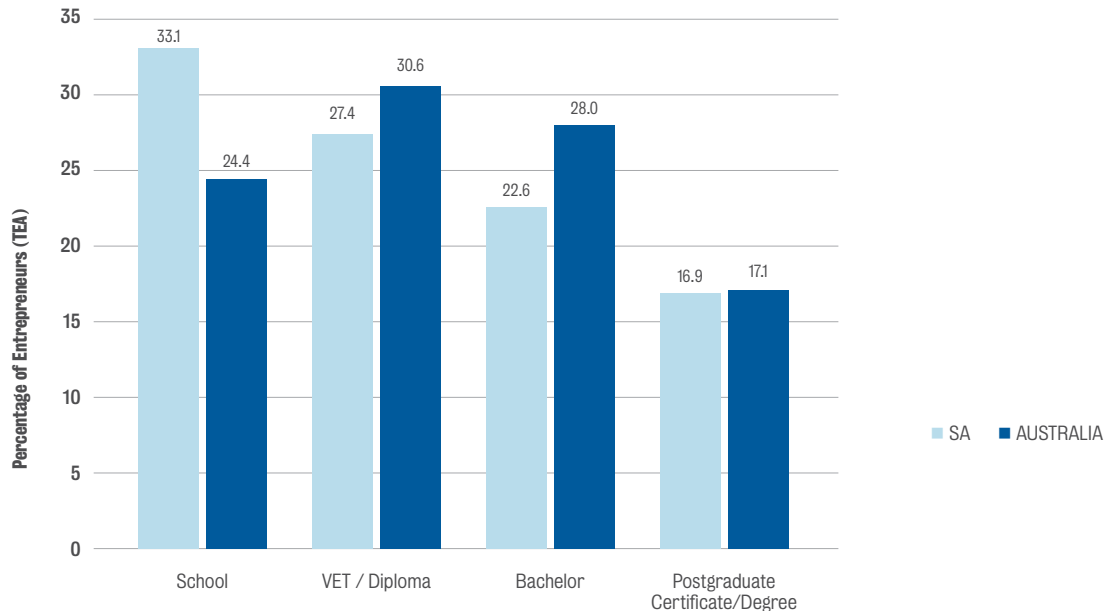
Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 14 Education and Training of Entrepreneurs – SA 2017 vs Australia 2015



Source: SA 2017/18 GEM study and GEM Global Entrepreneurship Monitor: Global Report 2017/18, London, Global Entrepreneurship Research Association.

FIGURE 15 Highest Level of Education of Entrepreneurs – SA 2017 vs Australia 2017



Source: Australia 2017/18 and SA 2017/18 GEM study.



5. PERCEPTIONS OF ENTREPRENEURIAL ECOSYSTEM AND USE OF SERVICES

A special topic about entrepreneurs' perceptions of the entrepreneurship ecosystem and their use of support services was included in both the 2017/18 SA and Australia GEM studies. No comparative data is available from other countries.

Figure 16 compares the perceptions of all start-ups and young firms (TEA) between SA and Australia, of the availability of support organisations, resources and services, and finance.

Overall, we can see that South Australians have a poorer perception of availability across all three categories of support. In SA, 33 percent of start-ups perceive support organisations as sufficient or abundant, compared with 47 percent for across Australia. Similarly, in SA, 41 percent perceive resources and services as sufficient or abundant, compared with 58 percent for

across Australia. Finally, 38 percent start-ups perceive access to finance as sufficient or abundant, compared with 52 percent for across Australia.

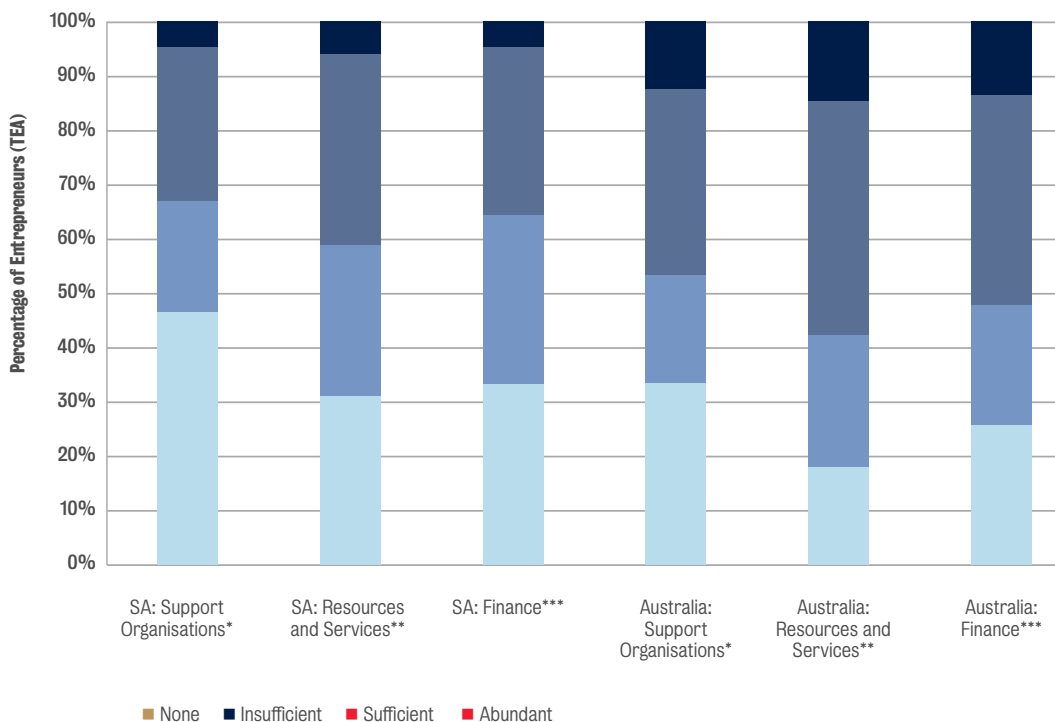
Figure 17 reports the perceptions of both start-ups (nascent firms) and young businesses (less than 3.5 years) that have accessed various types of services for both SA and Australia.

Overall, we can see that SA's start-ups have made substantially more use of support services than across Australia, whereas the opposite is the case for young established

firms. One explanation is that support services have improved in SA over recent years, but were relatively less available more than four years ago.

Overall, between 7 and 14 percent of start-ups and established young businesses accessed any support services. In general, grants, advice, training, tax concessions and mentoring are all somewhat commonly used by entrepreneurs (in that order), whereas the use of mediation services is quite uncommon.

FIGURE 16 Entrepreneur's perceptions of Entrepreneurial Ecosystem: SA vs Australia

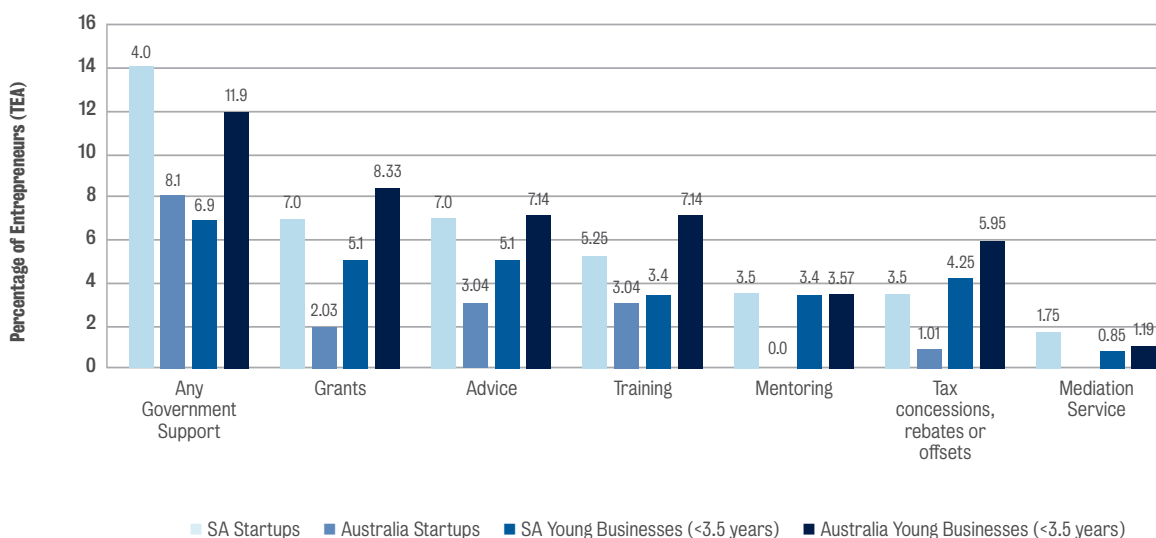


*Places, organisations, and/or network opportunities that will inform and connect you to support information and expertise

**Resources & services available to assist you in starting a new business such as information, expertise, business services, potential employees, office space and/or equipment

***Finance available to assist you in starting a new business

FIGURE 17 Entrepreneur's Use of Support Services: SA vs Australia



Source: Australia 2017/18 and SA 2017/18 GEM study.

6. CONCLUSIONS AND POLICY IMPLICATIONS

Overall, the findings of the GEM SA study suggest that SA falls behind the rest of Australia with respect to entrepreneurship participation across the population.

While it must be acknowledged that high levels of entrepreneurship are not universally a good thing (for example, developing economies on average have a higher level of entrepreneurship driven by necessity and lack of employment opportunities), the pattern of findings in the report suggest several areas where SA should look to improve.

Four elements of these findings stand out as particularly important areas for improvement that policy measures may wish to address.

1. Overall, SA entrepreneurial participation is substantially lower than Australia (SA TEA of 9.1 percent vs 12.2 for Australia). This appears to be, in part, due to a lower perception of good opportunities for entrepreneurship (43 percent in SA vs 51 percent across Australia). Government narratives, communication campaigns and support have a potential role to play in shaping public attitudes and an entrepreneurial culture more generally. Universities, and even earlier education in schools, also play a role in fostering and supporting appropriate forms of entrepreneurship. GEM 2015¹⁰ revealed a very strong influence of entrepreneurial education at school on entrepreneurship participation.
2. SA female participation in entrepreneurship is very low. With only 5.6 percent of adult females involved in entrepreneurship, this is about half that of SA males (12.8 percent), and well below female participation across Australia (9.2 percent). Government narratives, communication campaigns and support have a potential role to play in shaping public attitudes toward female entrepreneurship.
3. The average level of skill, in terms of prior relevant education, of SA's entrepreneurs is lower than across Australia. Entrepreneurs

in SA are substantially less educated than the Australian benchmark for entrepreneurship education at school and post school, business studies post-school; and science, technology or ICT, engineering or maths (STEM) post-school. The difference is most pronounced for STEM education/training, where 29 percent of SA entrepreneurs have studied STEM, compared with 52 percent across Australia.

4. Entrepreneurship participation by middle-aged adults (45–54 years old) is particularly low in SA. At 6.0 percent, this is about half the level across Australia (11.9 percent). Again, targeted communications and support could be considered to encourage greater participation in this Generation X cohort.

In light of these findings, several forms of policy interventions are recommended:

1. A public awareness campaign aimed at encouraging participation in entrepreneurship – particularly focussed on positive examples of women, the 45–54 age cohort, and/or STEM educated founders. Evidence from elsewhere suggests that this form of government campaign (e.g., the highly successful Start-up Chile program) can be very effective in improving attitudes and participation in entrepreneurship. To this point, the South Australian Entrepreneurs Week program could be institutionalised in the annual calendar and given prominence as a government-backed initiative.
2. Continuing and/or expanding support programs for start-ups. Programs providing seed funding and access to incubators, accelerator programs and mentors provide concrete support to encourage and advance start-ups. Establishing a data collection strategy across the State's incubators and accelerators would

enable close monitoring of the progress on inclusive diversity and quality of entrepreneurial participation.

3. A component of these programs to specifically target women. Evidence from one of the most successful start-up hubs globally (MaRS in Toronto) suggests that a proactive approach to gender inclusion, including female mentors, female angel investment/VC funds, can be successful in improving gender balance across the entrepreneurship ecosystem.
4. Entrepreneurial ecosystems are not all the same and while SA's indicators of entrepreneurial activity are to some extent lower than the national case, the prima facie evidence could be further analysed to understand how the lower incidence of entrepreneurship reflects strength, weakness or difference in the South Australian economy.

It is also suggested that further (e.g., bi-annual) data be collected to evaluate the effectiveness of start-up support programs.

Notwithstanding the challenges outlined above, there are a few bright spots for SA's entrepreneurship profile:

1. Youth entrepreneurship is comparatively high in SA. SA's youth entrepreneurship for the 18–24 age group (9.6 percent) is higher than across Australia (7.6 percent). This may reflect recent effort to promote entrepreneurship as a possible career path, both within schools and at universities.
2. Senior entrepreneurship is also quite high in SA. SA's senior entrepreneurship for the 55–64 age group (7.8 percent), while not as high as across Australia (9.3 percent), is well ahead of the average of developed economies (5.9 percent) and the UK (5.0 percent).

¹⁰ Steffens, P (2015). Australian Youth Entrepreneurship and Education. ACE Research Vignette, 046. Australian Centre for Entrepreneurship Research, QUT. <https://eprints.qut.edu.au/86053/> and Schott, T, Kew, P and Cheraghi, M (2015). Future Potential: A GEM perspective on youth entrepreneurship 2015. <https://www.gemconsortium.org/report>



3. While smaller in number, SA's start-ups are on average more ambitious in terms of job growth than the rest of Australia. While entrepreneurship rates in general are substantially lower than across Australia, the percentage of adults starting a business that expects to employ at least six people is almost on par with that of Australia.

It is important to note that in interpreting the findings of this report, most start-ups are of a modest nature in terms of overall growth expectations and innovativeness. The typical new firm starts small and remains small. We stress that since GEM is a study of the population of all businesses, the numbers of very high-growth start-ups captured in the study are too small to make any direct assessment of very high-growth ventures in Australia. Nonetheless, while the impact of a single new firm might be small, collectively they are crucial for the growth and development of our economy. Furthermore, the greater the quality and overall pool of start-ups, the larger the number of high-potential start-ups. In this sense, the GEM study does provide evidence that the overall pool of quality start-ups is comparatively and reasonably strong in SA, albeit not as strong as across Australia. It is these high-potential

start-ups that arguably have the greatest impact on the economy. To support this, we are pleased to see that the indicators of high-potential entrepreneurship in Australia are positive. These indicators, including expected employment growth and innovativeness, compare favourably with other developed economies.

We also acknowledge that the findings of this research are far from conclusive in a number of important aspects, and suggest future research is warranted in the following areas:

1. This study identified a lower entrepreneurship participation rate than elsewhere in Australia, particularly for women and 45–54 year olds. However, the reasons for this lower participation are not clear. Further research could help identify the reasons.
2. This study identified that the average level of skill, in terms of prior relevant education, of SA's entrepreneurs is lower than across Australia. Further research is needed to establish whether this difference reflects lower levels of these types of education across the population generally, or if fewer educated individuals choose entrepreneurship as a career choice.

3. The current study was limited to comparing SA to Australia (due to sample size limitations). A state-by-state GEM study would allow a systematic investigation of differences in entrepreneurship between each state of Australia.

4. The GEM study identifies "grassroots" entrepreneurship. As noted above, these are dominated by rather modest business efforts – small in size and with low growth ambitions or potential. While these start-ups are economically important due to their sheer number, the very high-growth potential start-ups (e.g., gazelles) also have an important impact on the economy. Data on the numbers and types of these firms is very limited in SA/Australia. Research, for example using the ABS BLADE database, is suggested to provide baseline data for high-growth firms.

**THE SOUTH AUSTRALIAN
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ENTREPRENEURSHIP,
COMMERCIALISATION AND
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THE UNIVERSITY OF ADELAIDE**

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