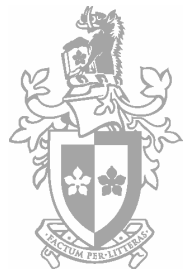


Westpac GEM Australia 2005: Data Report on Entrepreneurial Capacity



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The GEM Australia project is based on annual research – principally the annual GEM Australia national adult population survey – that presents its results using a matrix approach which breaks *total entrepreneurial activity* into six components (*participation, motivation, innovation, growth, finance and entrepreneurial capacity*). Each component is discussed in its own Data Report with respect to three stages of owner-operated business: *start-ups* (businesses actively starting and no more than three months old); *young firms* (from four to 42 months old) and *established firms* (owner operated businesses greater than 42 months old)¹.

Accordingly this data report is one of six that, together, comprise a portrait of entrepreneurial activity in Australia in the calendar year 2005. It is best read in conjunction with the other five data reports and the wide range of other documents and materials, which comprise the multi-faceted GEM project, available at www.gemaustralia.com.au.

The full and correct academic citation for this paper is:

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At an international level, the [GEM Global Executive Report](#) provides the global context for the Australian research by presenting key findings of differences found in comparing the entrepreneurial activity of nations taking part in the GEM project. This year, 35 nations were represented. A full description of the [GEM Global Research Methodology](#) can be found in the [How GEM Works](#) section of the [GEM Australia website](#).

Key Words: Entrepreneurial capacity, Age, Gender, Regions, Education, Skills.

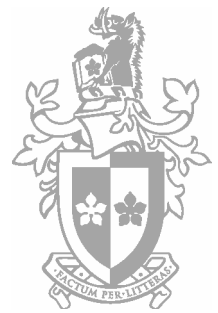
Aim of this paper: To portray the nature and distribution of entrepreneurial capacity possessed by the Australian population in 2005 within the limits prescribed by the data available in the 2005 GEM Australia national population survey.

ENTREPRENEURIAL CAPACITY

Entrepreneurial capacity can become a very fraught concept but, at a broad level of generality, it may be defined as the ability of the people involved in a new venture to do what is required to make it an entrepreneurial success. Entrepreneurial capacity therefore comprises the collective characteristics, experience, knowledge and skills embodied in a venture's human and capital resources. GEM national population survey data permit some broad insights into national entrepreneurial capacity.

¹ Readers should be aware that the Global Executive team and other countries use different terms to describe these business stages in their respective reports. Please refer to [GEM Global Research Methodology](#) section for a description of these differences.



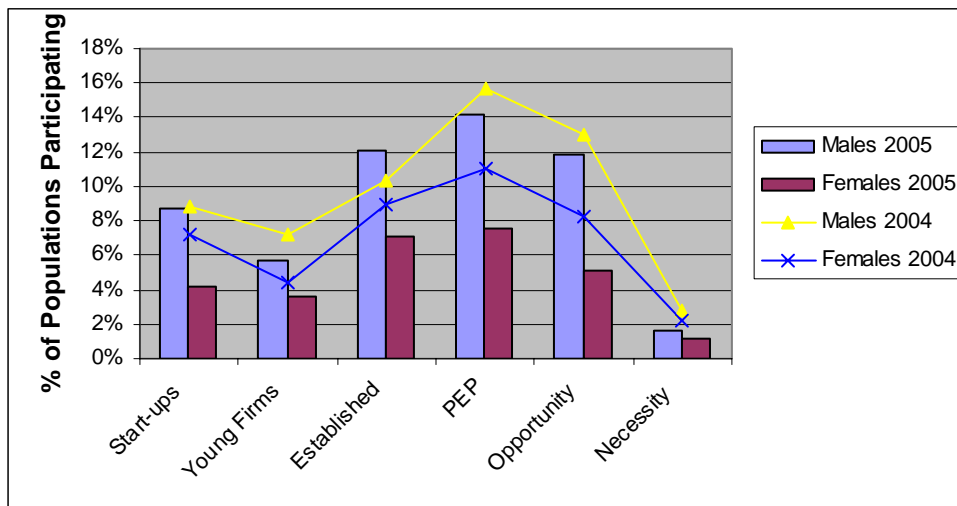


We can observe certain demographic characteristics and specifically inquire into a respondents' self-reported possession of the skills and knowledge necessary to start a business.

GENDER

Overall patterns of Australian participation rates by gender are presented in Figure 1, which shows the difference between male and female participation rates from the perspectives of business stage and motivation along with comparisons with the 2004 findings. In calendar 2005 we note a heavy decrease in female participation rates across most categories. This contrasts starkly with the relatively minor fluctuations among males. This decline in female participation is a substantial contributor to the drop in Australia's overall participation rates in owner operated business between 2004 and 2005.

Figure 1 – Australian Business Ownership Participation: Males/Females



AGE

The pattern of total early-stage participation, (the combination of those in start-up and young firms) has been monitored in past GEM years by observing the age splits for males and females across five categories within the 18 to 64 year old working age definition. Figure 2 reveals a variation in the 2005 findings from the 2004 results with peak male early-stage participation shifting one age category younger (from 35-44 year olds to the 25-34 year olds). The female early-stage participation peak moves to one age bracket older (from the 25-34 year olds to the 35-44 years olds).



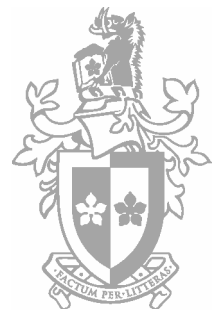
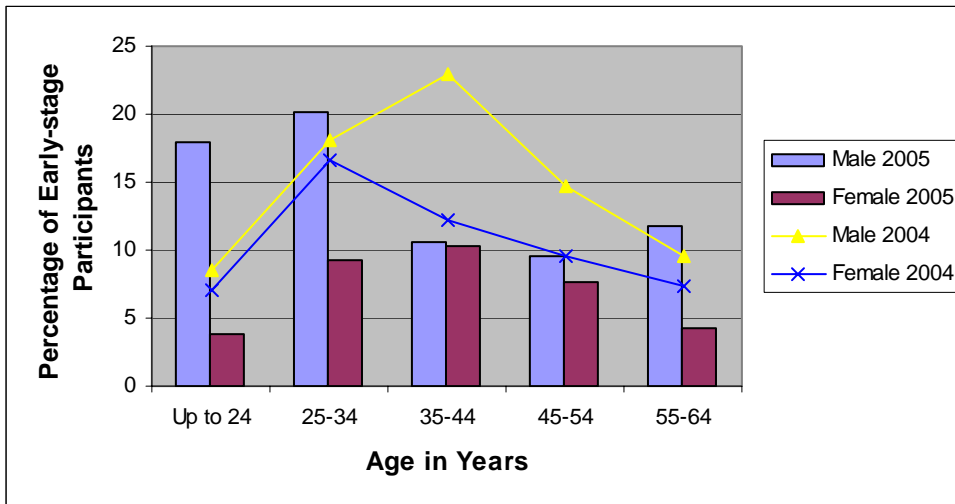


Figure 2 – Gender Early-stage Participation rates within 5 Age Ranges



Moving from gender-age comparisons to type of business stage-age comparisons, Figure 3 considers the two groups of participants in early-stage participation (start-ups and young firms) separately. A dramatic drop in participation occurred in 2005 when compared to 2004 in the age sector of 35-44 years old for both types of participants.

An examination of each business stage group separately reveals that the young firm participation rate is markedly lower than in 2004 for all except the oldest and youngest age categories, while the start-up rates show lower participation in all brackets except the youngest. Moreover, the variation in pattern for start-up participation does not appear to alter greatly except for the 35-44 year old segment, as previously stated.

Statistical significance of findings at this level of detail is difficult to obtain because sample size renders low population representation in some categories under scrutiny. In the case of GEM, the sample size is designed to be representative of the national population as a whole. Ability to conclusively test various sub-populations would demand an extended sample size in order to obtain numbers sufficient for statistical validity testing in every category.



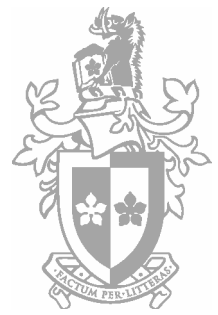
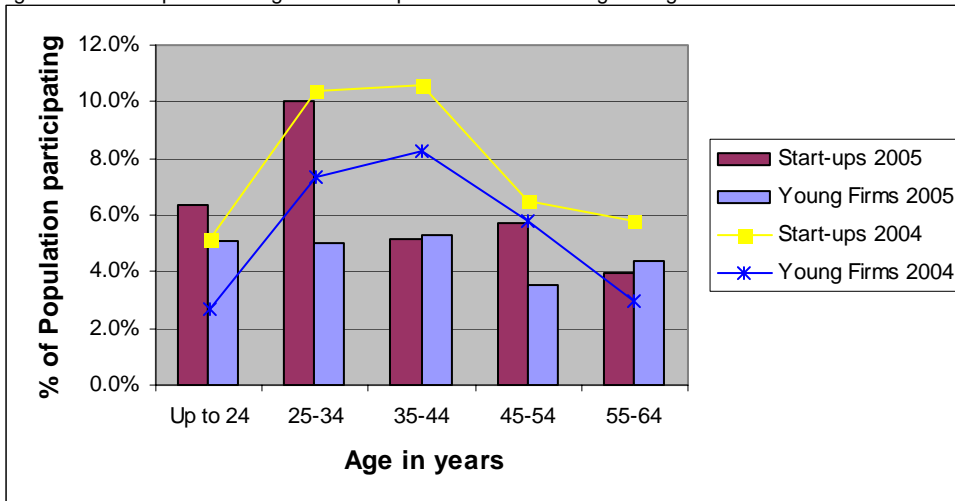


Figure 3 – Start-up and Young Firm Participation Rates within Age Ranges



REGION

GEM Australia has traditionally reported the differences in regional, state and territory activity. For this exercise the smaller states and territories are combined with the larger neighbouring states to gain some level of numeric comparability. Here again the lack of sufficient sample size in each of the regions allows no possibility of statistical significance testing at common confidence intervals of sufficiently small range. Despite sample limitations, Figure 4 provides an interesting contrast between the 2005 and 2004 patterns of responses.

No state shows any major increase in participation in either start-up or young firms. (Although New South Wales shows a marginal increase it might be better considered as approximately the same as the previous year). Notably, both the South Australia / Northern Territory and Western Australia regions show the highest decreases in both participation rates with Victoria showing the next highest level of decrease. Queensland on the other hand exhibits a reasonably stable participation rate in young firms with a decrease only occurring in the start-up group.

In 2004 it was suggested that NSW may tend to act as a barometer of Australian national participation rates (Hindle & O'Connor 2005). Using this barometer, it was cautiously predicted that the 2005 national participation rate would decline. Indeed, we find that it has declined, and, if the NSW rate can be trusted as an early indicator, the 2005 result may predict that the 2006 early-stage participation rate will be substantially the same or maybe only marginally higher than in 2005.



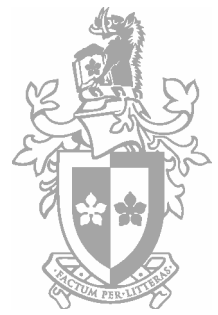
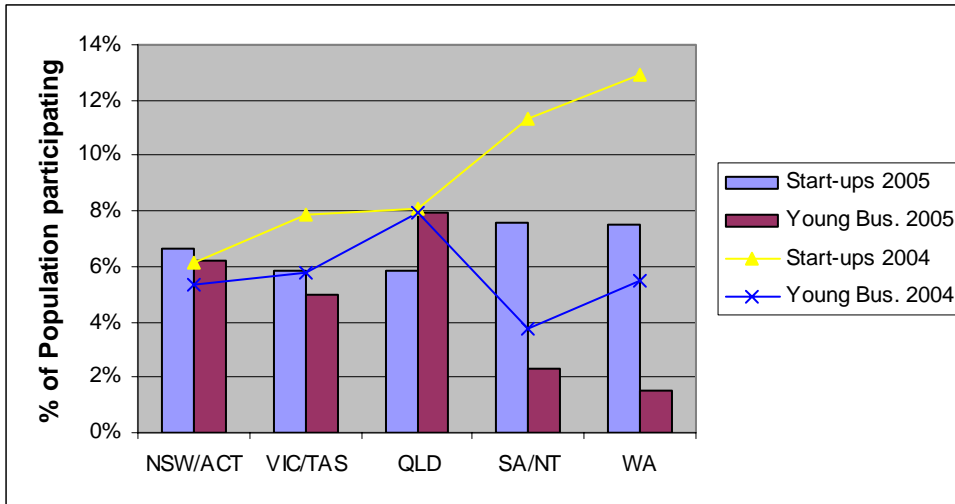


Figure 4 – Early-stage Participation Rates: Regional Splits



EDUCATION

In the 2004 Australian Westpac GEM report the analysis of the findings in education revealed that approximately 78% of our active business participants held less than higher education degree qualifications (Hindle & O'Connor, 2005). In 2005 the Global Executive team reports that early-stage business participants in both high-income/low growth and middle-income/high growth countries are more likely to be post-secondary school educated. However, this is not the case for established business owners where the middle-income/high growth countries have a high representation of post-secondary school educated participants while the high income/low growth countries (such as Australia) on the other hand have a fairly even distribution of business owner participants with above and below post-secondary schooling (refer Figure 5). The implication to be drawn is that high-income countries are experiencing a change in the educational attainment levels of self-employed business owners. Early-stage business participants are beginning to incorporate an increasing proportion of more highly educated individuals – especially in high-tech businesses (Minniti, 2006).



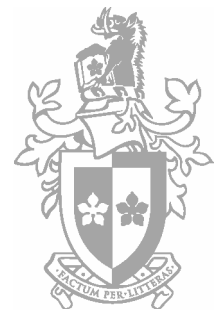
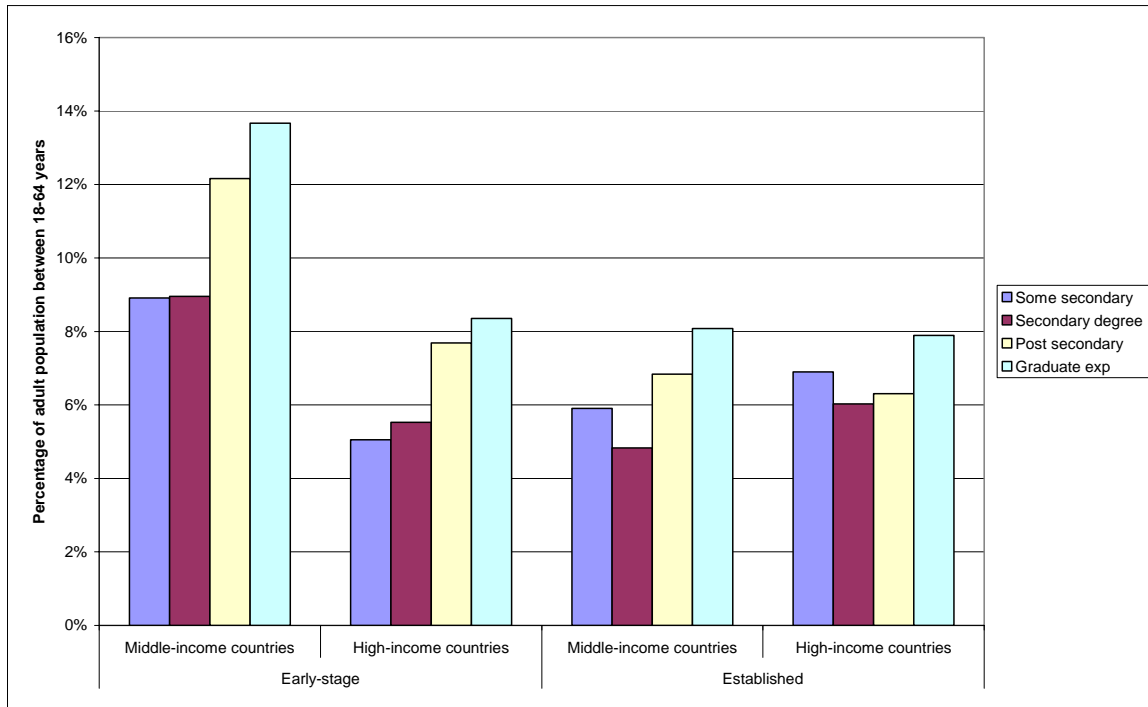


Figure 5: Business Owner Participation by Education and Country Clusters
 (Source: Global Entrepreneurship Monitor 2005 Executive Report, p. 36)



As a comparison this year we provide Figure 6. It shows the education distribution between the early-stage and established business owners for Australia. A nomenclature note is required here where the category of ‘Some secondary’ also includes people with primary education or less and the category ‘Secondary degree’ includes those who have completed up to Year 12 education. ‘Post secondary’ contains those with Technical and Further Education (TAFE) or other vocational education and training while ‘Graduate experience’ is the category containing those with undergraduate degrees or higher. It can be observed that Australia’s early-stage profile is similar to that presented by the global study in both country clusters but the education profile of established business owners takes on a slightly different shape. In both cases, however, Australia evidences a lower representation of business owners with graduate experience when compared generally with the contributing GEM nations. It is hoped that the important question raised by this difference – are Australian business owners undereducated compared to the rest of the world? – will be explored in statistical detail in a future Issue Paper.



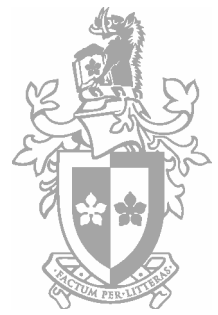
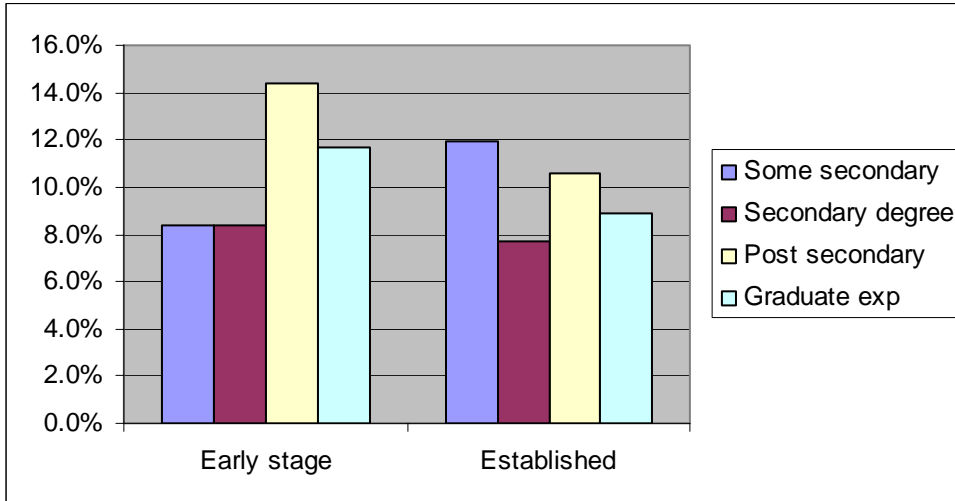


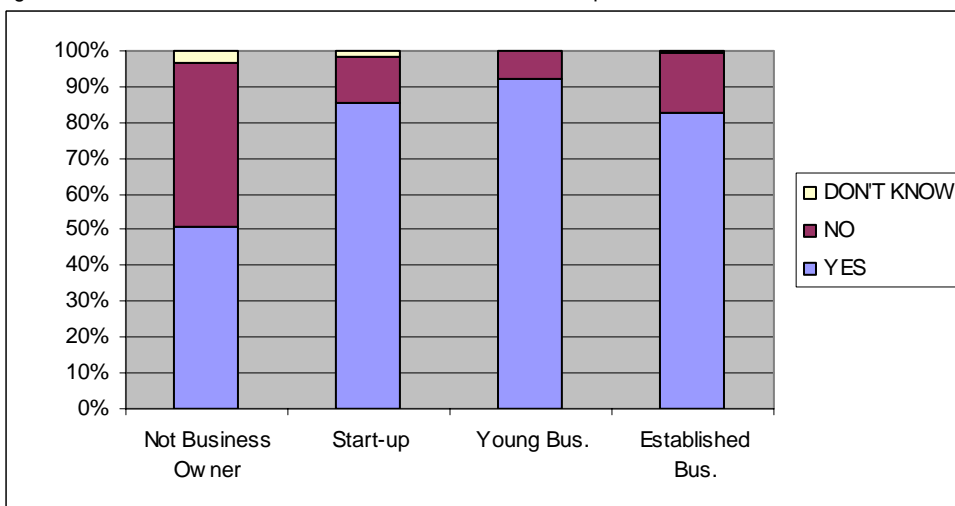
Figure 6: Business Owner Participation by Education in Australia

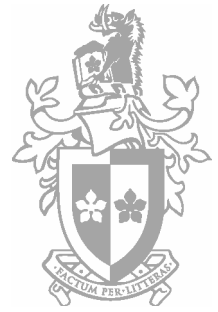


SKILLS

In each country's GEM national population survey, all respondents participating in business ownership activity are asked the question: "Do you believe you have the skills and knowledge to start a business?" For cost reasons, only half (based upon a random allocation procedure) of those who are *not participating* in any manner of business ownership activity are also asked the same question. Figure 7 displays the distribution of those who, in Australia in 2005, believed they possessed the skills and knowledge to start a business. Responses are split four ways: between the three categories of business ownership and non-business owners. This distribution is largely similar to the preceding 2004 results and suggests little or no change. The overwhelming conclusion must be that Australia is a country seriously lacking in entrepreneurial capacity.

Figure 7 – Australian Distribution of Belief in Skills to Do Start-up





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