

National Council for Graduate Entrepreneurship
Research Report 003/2007

Graduate Entrepreneurship in the UK:

Summary Report from GEM UK Data

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1. Terms of References

A summary report is required from the National Council for Graduate Entrepreneurship to understand how GEM UK may contribute to the evidence base. The report should be brief and give an indication of the available data and some interpretation of it.

2. Scope of the Report

This report presents charts and tables that give an overview of graduate entrepreneurial activity in the UK. It is based on the GEM UK 2005 adult population survey (APS) of 32,500 adults of working age in the UK.

The report uses two indicators:

- **Total early stage entrepreneurial activity (TEA):** This is GEM's core indicator and is based on the answers to three key questions within the GEM survey: are you alone or with others engaged in some form of start up activity independently of your work and have been paying salaries for less than three months? Are you alone or with others engaged in some form of start up activity as part of your job and have been paying salaries for less than three months? Are you alone or with others the owner or manager of a business?

The TEA calculation takes positive responses from each of these questions to calculate rates of *nascent* business formation (salaries paid 0-3 months) and *baby* business formation (salaries paid 3-42 months). TEA is the sum of these two.

Additionally, GEM also calculates the rate of *established* business ownership (salaries paid for more than 42 months).

- **Social entrepreneurial activity (SEA):** This is a calculation of all entrepreneurial activity where profit is allocated for community, social or environmental purposes rather than to distribute profit amongst shareholders. It's calculation is based on similar questions: are you alone or with others starting up a venture, business or initiative with community, environmental or social purposes and are you alone or with others the owner or manager of a venture, business or initiative with community, social or environmental purposes?

In addition to this, the report gives details on other areas of interest such as attitudes towards entrepreneurship and finance as well as barriers to entrepreneurship amongst those who are not involved in any form of entrepreneurial activity ("avoiders").

Two groups of graduates are compared throughout: those graduating with their highest level of qualification before 2000 and those graduating with their highest level of qualification after 2000.

3. Total Entrepreneurial Rates

The total rate of entrepreneurial activity for the early stage (the TEA rate) shows men are more likely than women to be TEA active. The total figures which include data before and after the year 2000 show the rate for men to be 8.9% and the comparable rate for women to be 7.3%. However, within these data it should be noted that the rates decline after 2000. This is true for men and women. The rate for men is 11.4% before 2000 and 9.8% after 2000. This is compared to the rate for women of 5.9% before 2000 and 5.3% after 2000.

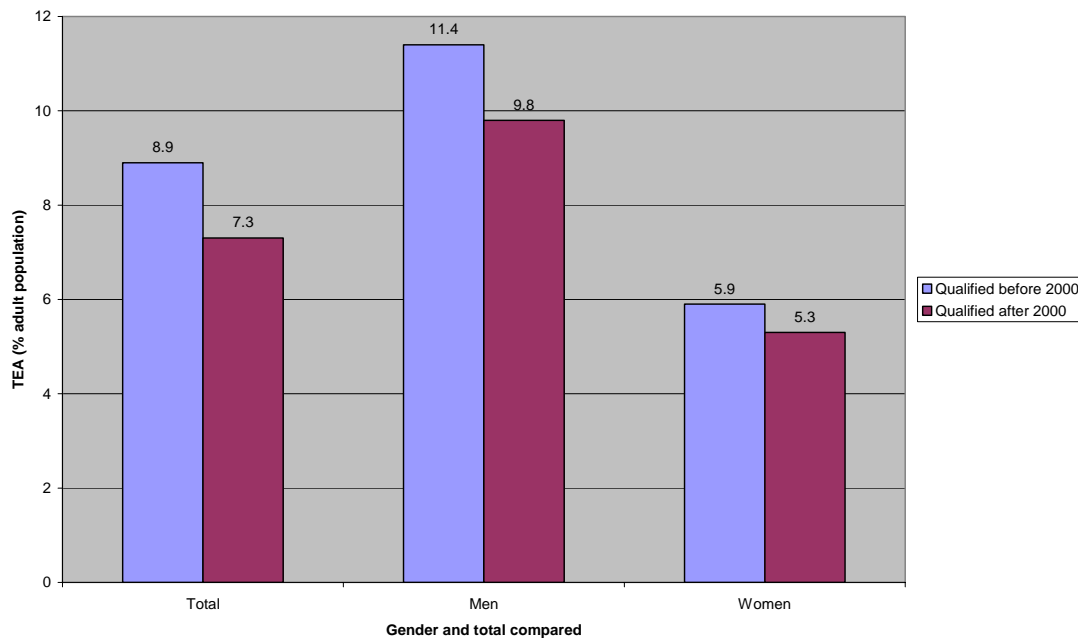


Figure 1
Total early stage entrepreneurial activity (TEA) rates overall and by gender, 2005
 Source: GEM UK 2005

Therefore, it can be concluded that men are more likely than women to be TEA active generally and that both genders are more likely to be TEA active if they graduated before 2000.

4. Graduate TEA by Region

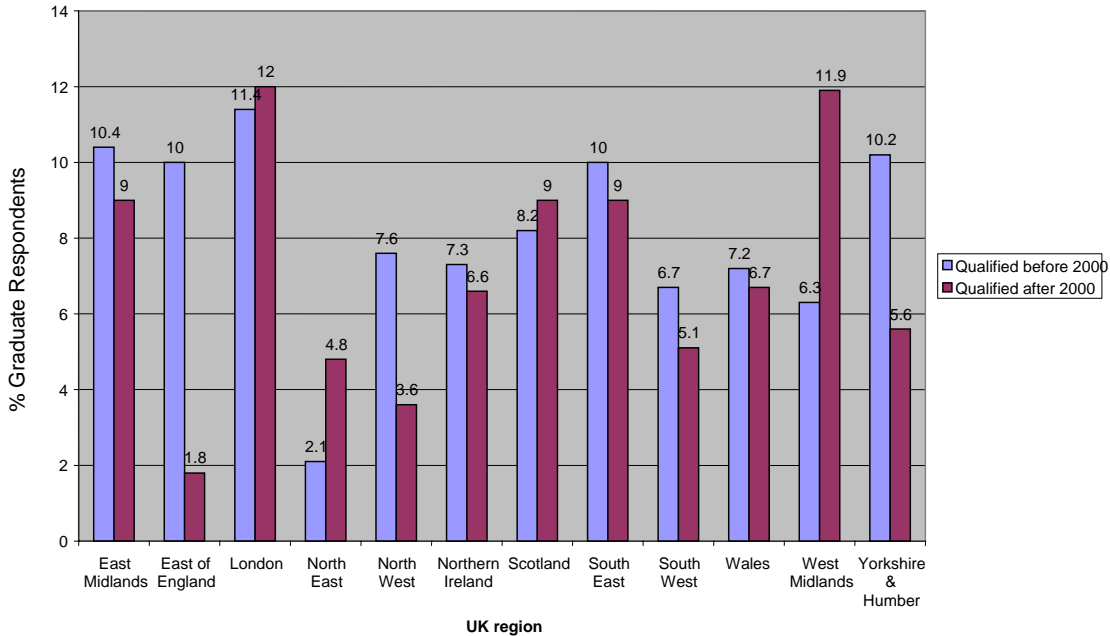


Figure 2
Graduate TEA by UK region, 2005
 Source: GEM UK APS, 2005

The data shows a mixed set of results for Graduate TEA for the regions across the UK. In general terms, graduate entrepreneurship is lower for those who graduated after 2000, but there are four exceptions: London, the North East, Scotland and the West Midlands. The highest rates are 12.0% for London and 11.9% for the West Midlands. Graduate entrepreneurship is particularly low after 2000 in the East of England at 1.8%. While there may be some sampling error here, the results are statistically significant at the 1% level.

5. Indicators of Underlying Entrepreneurial Activity

	Qualified before 2000			Qualified after 2000		
	Men	Women	Total	Men	Women	Total
Made informal investment in last year	3.4	1.7	2.6	2.4	1.1	1.6
Shut down a business in last year	3.6	1.7	2.8	1.8	1.0	1.3
Expect to start a business in next 3 years	14.2	8.8	11.8	18.1	10.3	13.8

Figure 3

Indicators of underlying graduate entrepreneurial activity (%)

Source: GEM UK APS 2005

As noted in Figure 3, men are more likely than women to make informal investments. This is true for those who graduated before 2000 (3.4% of men compared to 1.7% of women) and also for those who graduated after 2000 (2.4% of men compared to 1.1% of women). The aggregated data shows levels of informal investment activity to be higher amongst those who graduated before 2000 than those who graduated after 2000 (2.6% compared to 1.6%).

Aggregate levels of business closure have reduced from 2.8% of those who graduated before 2000 to 1.3% who graduated after 2000. The percentage of men who 'shut down a business in the last year' has fallen from 3.6% before 2000 to 1.8% after 2000. For women the figures fall from 1.7% before 2000 to 1.0% after 2000.

The expectations of future start up activity are significantly higher in the population that graduated after 2000. The figures for men increase from 14.2% before 2000 to 18.1% after 2000 and for women, increase from 8.8% before 2000 to 10.3% after 2000.

6. Cultural Indicators

	Qualified before 2000			Qualified after 2000		
	Men	Women	Total	Men	Women	Total
Personally know an entrepreneur	41.6	30.3	36.5	41.3	33.2	37.1
There are good start-up opportunities	55.4	44.0	50.4	46.5	46.8	46.7
Fear of failure would prevent me from starting a business	35.0	37.8	36.2	29.5	36.1	32.9
I have the skills to start a business	70.1	53.4	62.5	60.7	42.3	51.0
Starting a business is a good career choice	41.0	40.4	40.7	50.2	49.9	50.0
Entrepreneurs have a high status in society	71.9	69.9	71.1	77.4	69.3	73.2
Media coverage of entrepreneurship is good	58.2	53.4	56.2	54.3	49.1	53.6

Figure 4
Attitudes towards and perception of entrepreneurship amongst the graduate population, 2005 (%)

Source: GEM APS 2005

There are no statistical differences in knowing an entrepreneur between those who graduated before 2000 and those who graduated after 2000. However, women who graduated after 2000 are significantly more likely to know an entrepreneur than those who graduated before.

The perception of opportunities is lower amongst those who graduated more recently at 46.7% compared to 50.4%. However, the gender breakdown shows mixed results. The percentage for men has declined over time from 55.4% to 46.5% but over the same time, the percentage for women has increased from 44.0% to 46.8%.

Fear of failure is lower amongst those who graduated more recently, irrespective of gender. The rate for men has declined from 35.0% before 2000 to 29.55 after 2000. For women, the rate has also declined from 37.8% before 2000 to 36.1% after 2000.

Perception of having the skills to start a business is lower amongst those who graduated more recently, irrespective of gender. Thus the rate for men has declined from 70.1% before 2000 to 60.7% after 2000 and for women has declined from 53.4% before 2000 to 42.3% after 2000.

The last three questions in Figure 4 show the attitudinal responses. Seeing starting a business as a good career choice was similar for men and women before 2000 at 41.0% and 40.4% respectively. These both rose to 50.2% for men and 49.9% for women after 2000. Aggregated data of the last three responses show an increase from 40.7% before 2000 to 50.0% after 2000. The question of the status of entrepreneurs in society elicited a positive response in 71.9% of men and 69.9% of women before 2000 and 77.4% and 69.3% respectively after 2000. The aggregated data rose from 71.1% before 2000 to 73.2% after 2000. Media coverage was seen as good by 56.2% of all graduates before 2000 which fell slightly to 53.6% after 2000. These figures were mirrored by decreases for both men and women of 58.2% to 54.3% and 53.4% to 49.1% respectively

7. Components of TEA amongst the Graduate Population

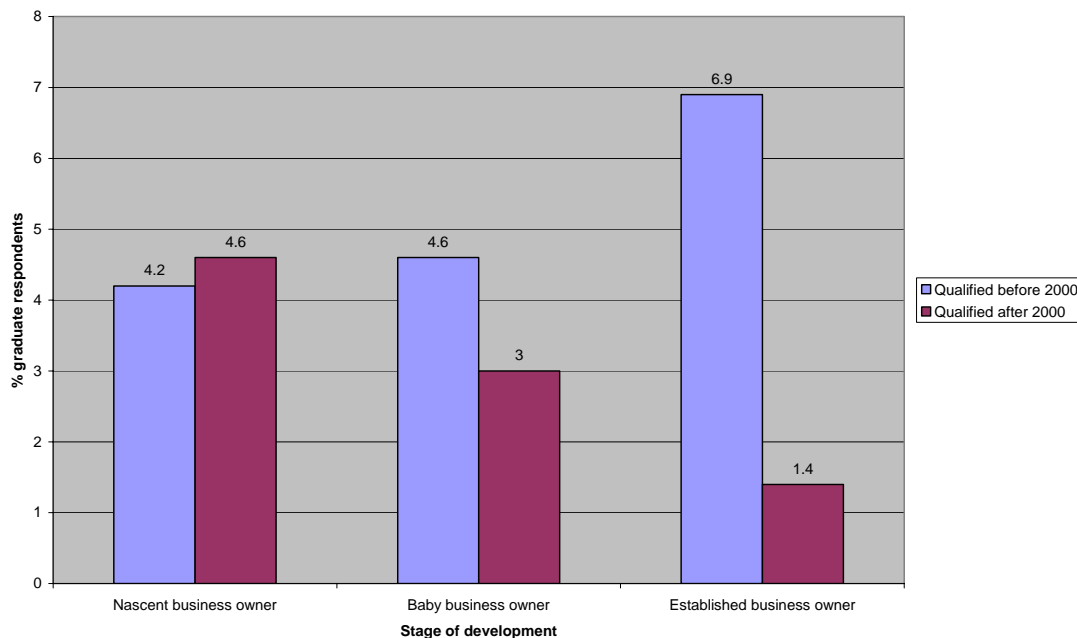


Figure 5
Components of TEA + established firms in the graduate population (2005)
 Source: GEM UK APS 2005

The rates of business formation (nascent businesses 0-3 months) have increased slightly from 4.2% before 2000 to 4.6% after 2000, although statistically, this is not significant. The rate of baby business ownership is lower amongst the recently graduated population, with the rate falling from 4.6% before 2000 to 3.0% after 2000. This change is statistically significant at the 5% level. The rate of established business ownership is considerably lower amongst the recently graduated population, with the rate falling from 6.9% before 2000 to 1.4% after 2000. This is significant at the 1% level.

8. The Growth Potential of Businesses Established by Graduate Entrepreneurs

Figure 6 is a calculation for market expansion potential based on the newness of the product or service, the innovativeness of the product or service and the expectation of the growth in jobs over the next 5 years.

Stage of development	No market expansion potential (%)	Little market expansion potential (%)	Some market expansion potential (%)	Maximum market expansion potential (%)
Qualified before 2000				
Nascent	46.5	37.4	9.6	6.6
Baby	47.1	41.2	8.8	2.9
All Owner-managed	44.1	44.1	10.3	1.5
Established	45.0	50.0	5.0	-
Qualified after 2000				
Nascent	49.2	33.6	10.7	6.6
Baby	35.3	35.3	29.4	-
All Owner-managed	45.2	32.3	19.4	3.2
Established	16.7	66.7	16.7	-

Figure 6
Market expansion potential of businesses owned by graduates by stage of development.

Source: GEM UK APS 2005

Figure 6 shows a mild tendency for some market expansion potential to be higher amongst the recently graduated population. For established businesses before 2000, 45.0% thought there would be no market expansion and 50.0% thought there would be a little market expansion compared to the same category after 2000 where the figures are 16.7% for no market expansion and 66.7% for a little market expansion.

If the data is aggregated as All Businesses, then the rates for no market expansion decrease over time from 45.7% to 36.6% and for little market expansion they decrease slightly from 43.25 to 42.0%. But for some market expansion potential they increase from 8.4% to 19.1% from before to after 2000. Graduates from after 2000 are more than twice as confident than they were before 2000 of some market expansion potential.

9. Financing Graduate Businesses

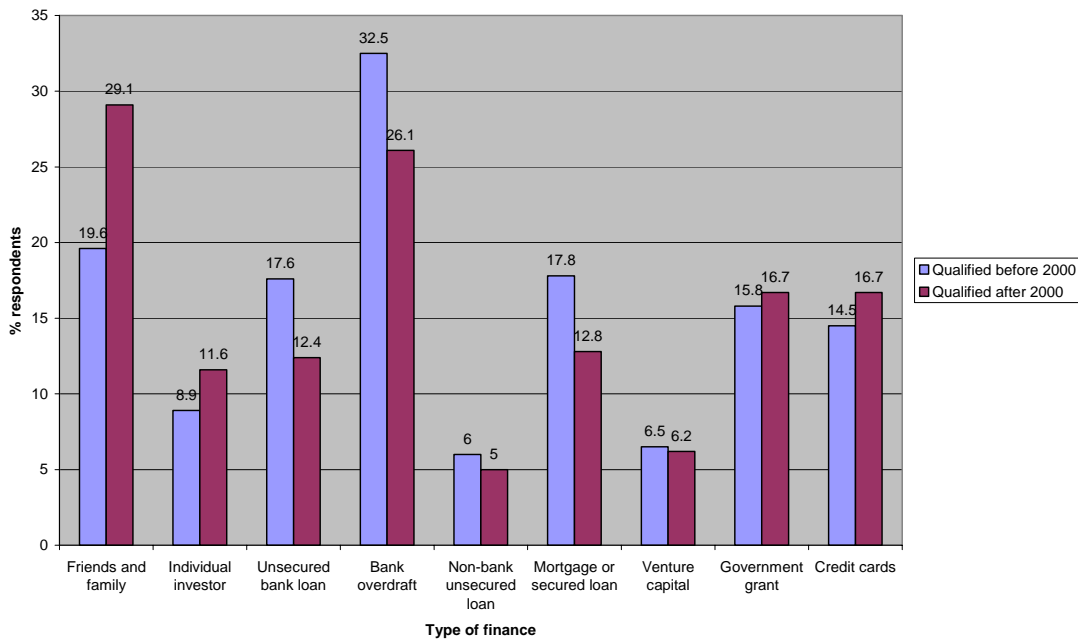


Figure 7
Sources of finance accessed by graduate entrepreneurs, 2005

Source: GEM UK APS 2005

The most popular source of finance has changed from a bank overdraft before 2000 to friends and family after 2000. The four sources which have increased over these times are friends and family, individual investor, government grants and credit cards. At the same time the other sources have declined in popularity.

Aggregating the data for sourced from financial institutions (unsecured bank loan, bank overdraft, non-bank unsecured loan, mortgage or secured loan and venture capital) the percentage has dropped from 80.4% to 62.5% whereas those sourced from private decisions (friends and family, individual investor and credit cards) have increased from 35.0% to 57.4%. The level of government grants as a financial source has increased slightly from 15.8% to 16.7%. Thus recent graduates are more likely to raise finance from private decisions, such as friends and family, individual investors or credit cards to finance their businesses.

10. Reasons for not Getting Finance

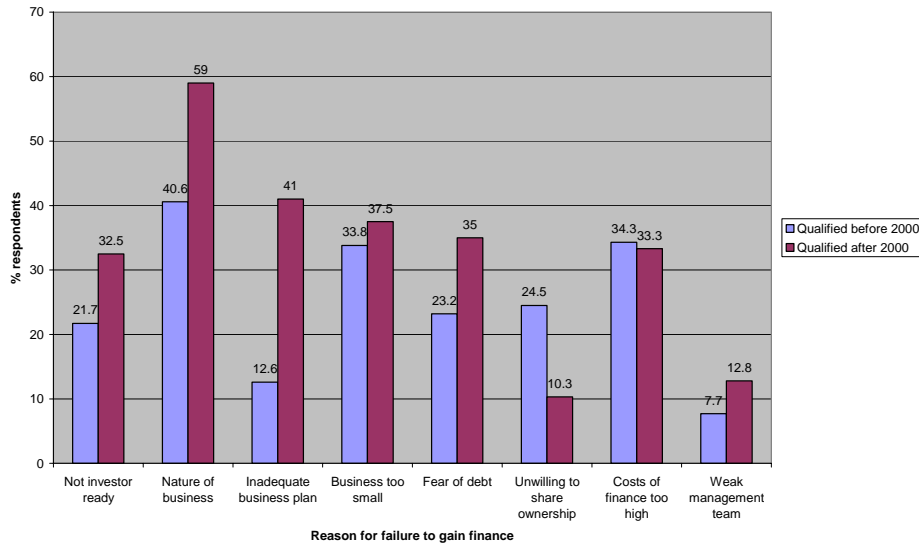


Figure 8
Reasons for failing to gain finance by date of qualification

Source: GEM UK APS 2005

The comparisons should be treated with caution since numbers are very small. However, there are several figures which can usefully be highlighted. From before 2000 to after 2000, the numbers failing to gain finance for not being investor ready have increased from 21.7% to 32.5%, due to the nature of the business increased from 40.6% to 59.0%, because of the inadequacy of a business plan increased dramatically from 12.6% to 41.0% and due to the fear of debt increased from 23.2% to 35.0%. The costs of finance being too high as a reason stayed at a high level at 34.3% down to 33.3%.

11. Barriers to Entrepreneurship amongst Graduate “Avoiders”

Getting finance for the business is the single largest area preventing recent graduates from thinking of starting a business. This was 40.3% before 2000 and was the highest figure. After 2000 it was 56.3% and was still the highest figure.

Perception that their skills are inadequate is significantly higher amongst the recently graduated population at 16.7% compared to 11.7% from before 2000. These are illustrated in Figure 9, below.

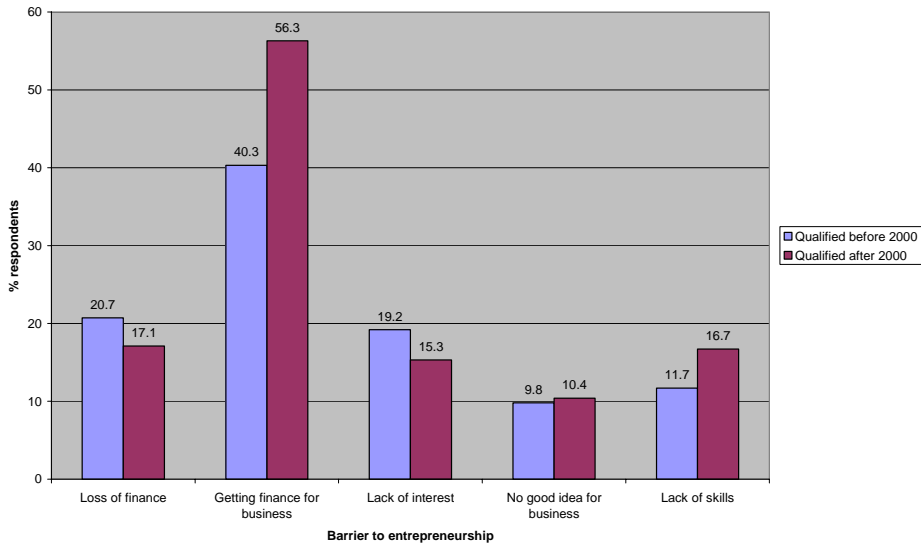


Figure 9
Barriers to entrepreneurship amongst avoiders by date of graduation
 Source: GEM UK APS 2005 (significant at 1% level)

12. Graduate Social Entrepreneurship by Gender

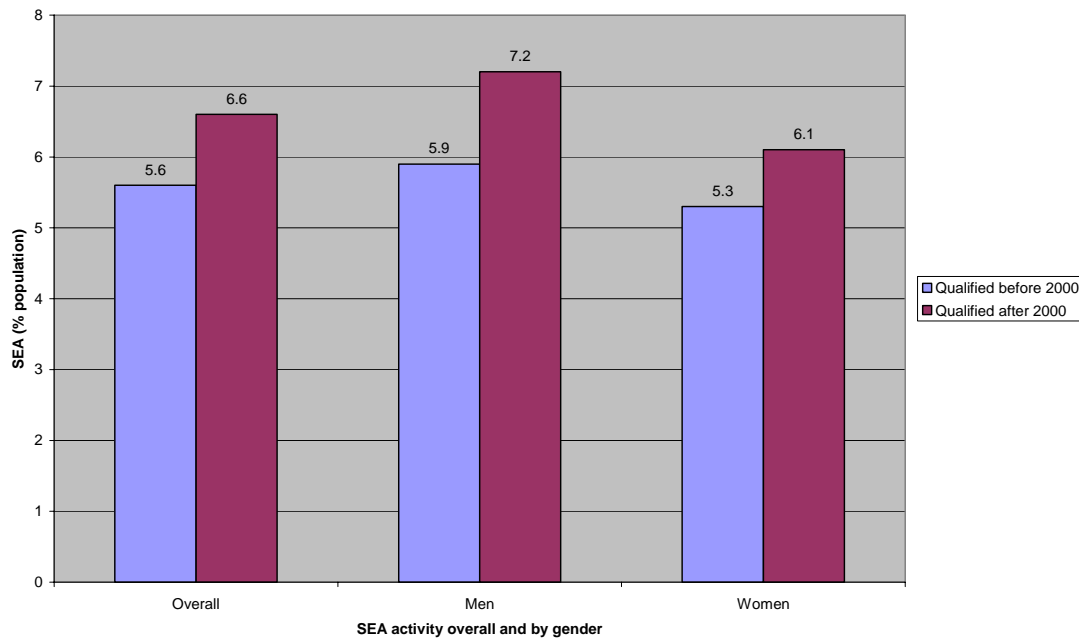


Figure 10
SEA activity by gender and year of graduation
 Source: GEM UK APS, 2005

Social Entrepreneurial Activity is higher amongst recent graduates. Before 2000 it was 5.6% rising to 6.6% after 2000. For recently graduated women the rate of SEA is higher than it is for TEA (6.1% to 5.3%). The gap between men and women is

narrower for SEA than it is for mainstream entrepreneurial activity. For before 2000 the SEA gap was 5.9% (men) and 5.3% (women) and after 2000 7.2% (men) and 6.1% (women). For TEA the respective figures are before 2000 11.4% (men) and 5.9% (women) and after 2000, 9.8% (men) and 5.3% (women).

13. SEA by UK Region

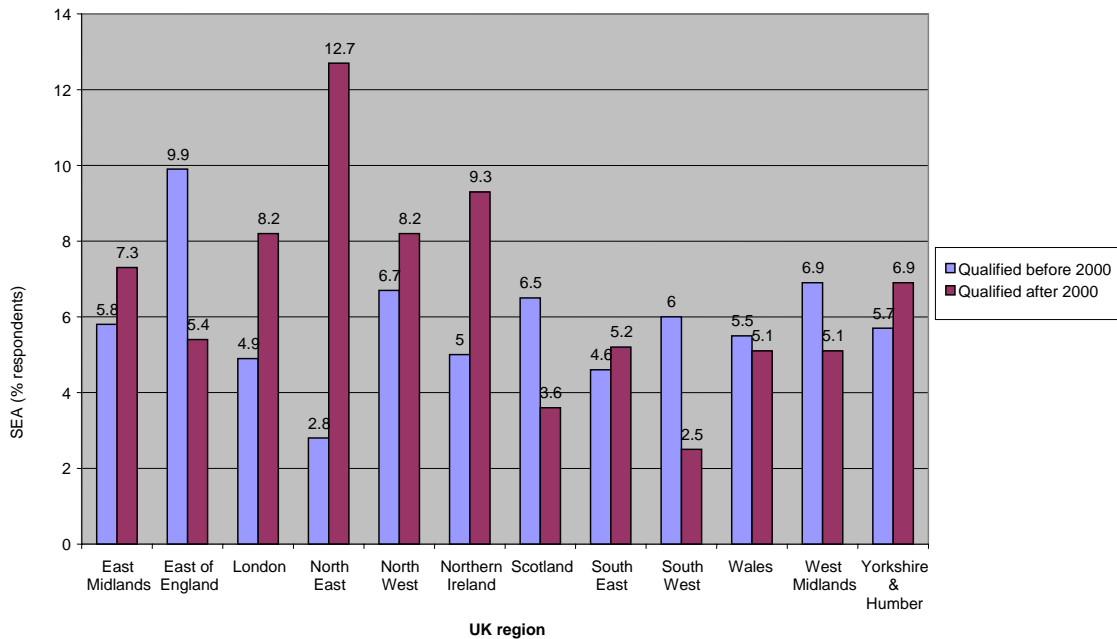


Figure 11
SEA by UK region and year of graduation

Source: GEM UK APS, 2005

SEA is higher amongst recent graduates in seven regions and lower in five regions. The total SEA for all 12 regions has slightly increased from 76.8% to 79.5%. Overall that is a slight increase but there are regional differences. There are three substantial increases for the regions London (4.9% to 8.2%), North East (2.8% to 12.7%) and Northern Ireland (5.0% to 9.3%) and three substantial decreases for the regions East of England (9.9% to 5.4%), Scotland (6.5% to 3.6%) and the South West (6.0% to 2.5%). Of these, the huge rise of 2.8% to 12.7% for the North East is the most notable. Of the decreases, that of 9.9% to 5.4% for the East of England is the most notable. Comparing the levels of Total Entrepreneurial Activity (TEA) with Social Entrepreneurial Activity (SEA), SEA is substantially higher than TEA for recent graduates in the North East (SEA 12.7% TEA 4.8%) and the North West (SEA 8.2% TEA 3.6%)

14. Summary

Graduate women are less likely to be TEA active than their male counterparts. This is the case for the UK population as a whole but the gap between male and female TEA rates amongst graduates is similar. Women are also less confident than men, even though overall their qualifications in the population studied are similar. There is less of a gap between men and women for SEA.

Total entrepreneurial activity amongst the recently graduated population is generally lower than amongst those who graduated before 2000. This is consistent with an older age pattern in the UK population as a whole: the most likely group to become entrepreneurs are those with graduate qualifications between the ages of 35 and 44. However, recently graduated respondents in London, the North East, Scotland and the West Midlands were significantly more likely to be TEA active suggesting that policy initiatives or the general labour market in those areas may be having an effect.

Informal investment activity amongst those who graduated before 2000 is unsurprisingly higher. Those who graduated after 2000 are more likely to be thinking of starting a business and this suggests that attitudes towards entrepreneurship may be getting more positive. However, specific attitudes towards opportunities and skills are not more positive amongst the recently graduated population suggesting that experience and age contribute towards a feeling that entrepreneurship is a feasible career option.

Unsurprisingly, baby and established business ownership is higher amongst the group of respondents who graduated before 2000. However, there are no significant differences between the two populations in terms of nascent business ownership. The lower overall TEA rate amongst the recently graduated population may therefore be explained by the fact that they have not yet had time to establish their business activities.

Combined data shows that overdrafts are the most likely source of finance to be accessed, although recent graduates are more likely to ask family and friends in the first instance. They are slightly more likely to have accessed government grants than less recent graduates. For both groups the nature of the business was the single most likely reason for not getting finance for the business. Surprisingly given recent government initiatives, recent graduates are substantially more likely to fear getting access to finance and to see themselves as not having the skills to start a business than less recent graduates. They are, however, less likely to see lack of interest in entrepreneurship as a barrier to starting a business.

Social Entrepreneurship activity has increased for both men and women across the UK, with some regions showing exceptionally high rates for more recent graduates. In some cases, the level of SEA is higher than the comparable rate for TEA.