

# **GEM UK: Wales Report 2012**

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The Global Entrepreneurship Monitor (GEM) is an international project involving 69 economies in 2012 which seeks to provide information on the entrepreneurial landscape of countries. Many studies have shown that entrepreneurship is an important driver for economic growth, competitiveness and job creation. The results of the GEM data analysis are used as key benchmarking indicators by regional and national authorities around the world. The sample size in Wales was 3,008 adults aged over 16 years of age in 2012 as a result of the Welsh Government boosting the national sample.

## **Main Findings**

- The rate of early-stage entrepreneurship (TEA) in Wales for 2012 was 7.0 per cent. This was not significantly different from the estimate of 8.1 per cent in 2011, but significantly lower than the estimate of 10.3 per cent for England and 9.8 per cent for the whole of the UK.
- Necessity-driven TEA was 1.3 per cent, close to the 2011 rate of 1.6 per cent, while opportunity-driven TEA was 5.3 per cent, not significantly different from the 6.4 per cent estimate in 2011.
- The female TEA rate in Wales slipped back to 4.0 per cent from a record high of 6.1 per cent in 2011. This was significantly lower than the UK estimate of 7.1 per cent. The female to male ratio of TEA dropped to 39 per cent from 60 per cent in 2011 (UK 57%, up from 49%).
- The TEA rate of young adults aged 18 to 29 remained high in 2012 at 8.6 per cent compared with 9.7 per cent in 2011 (UK: 9.4%, up from 7.4% in 2011) , while the TEA rate among 30 to 64 year olds was 6.5 per cent (7.7% in 2011), significantly lower than the UK average of 9.9 per cent (7.7% in 2011) and the average for England (10.5%).
- Entrepreneurial attitudes improved slightly in Wales in 2012. Opportunity perception rose significantly, from 17.7 per cent of the non-entrepreneurial working age population to 22.6 per cent. Opportunity perception also rose significantly across the UK from 27.9 per cent to 30.5 per cent.
- For the first time since 2008, the percentage of non-entrepreneurial individuals of working age in Wales who saw opportunities but were afraid of starting a business in case it might fail dropped, from 48.9 per cent to 43.8 per cent (UK: 41.4% to 43.3%) but these changes were not statistically significant.
- The proportion of non-entrepreneurial working age adults in Wales who expect to start a business within the next three years was down slightly at 8.8 per cent (9.4% in 2011). Start-up intentions rose across the UK, but not significantly (9.8% to 11.3%).

## Background

The Global Entrepreneurship Monitor (GEM) is based on the following premises. First, an economy's prosperity is highly dependent on a dynamic entrepreneurship sector. Second, an economy's entrepreneurial capacity is composed of individuals from all groups in society with the ability and motivation to start businesses, and requires positive societal perceptions about entrepreneurship. Third, high-growth entrepreneurship is a key contributor to new employment in an economy, and national competitiveness depends on innovative and cross-border entrepreneurial ventures.

The Welsh Government (WG) sponsored the Welsh component of the GEM UK research project. Stimulating entrepreneurship remains an important challenge for the region and WG has taken the lead in ensuring that it is embedded within its core activities. This is the tenth year in which the WG has participated in GEM. Of the 272,000 respondents to GEM UK surveys for the period 2002-2012, over 44,000 respondents were from Wales. Wales now has the largest database on entrepreneurial attitudes, activity and aspirations of any region of the UK for this period. This is particularly useful when conducting trend analysis for important sub-populations in Wales, such as women, young or older people, in relation to other home nations.

The results from GEM data analysis are used as key benchmarking indicators by regional and national authorities around the world. They also enable comparisons to be made with the other regions of the UK and other countries participating in GEM. Overall, GEM's unique ability to provide information on the entrepreneurial landscape of countries in a global context makes its data a necessary resource for any serious attempt to study and track entrepreneurial behaviour.

It is important that we better understand the determinants of early stage entrepreneurship, because there is evidence to suggest a connection between

higher rates of entrepreneurship and overall economic prosperity, particularly in innovation-driven economies like Wales.

## How GEM Measures Entrepreneurial Activity

GEM creates an index of early stage entrepreneurial activity (known as TEA) using the following approach:

- A telephone survey of a random sample of the adult population is conducted between May and September. In 2012, sampling in Wales was extended until December.
- The TEA index is the sum of those respondents classified as nascent<sup>1</sup> entrepreneurs and new firm entrepreneurs<sup>2</sup>.

The TEA index does not measure all entrepreneurial activity and is not based on a survey of business entities. It measures the characteristics of entrepreneurial individuals and the types of entities they establish. As such it is a unique and internationally comparative measure of the cultural propensity of a nation, or region, to be entrepreneurial.

One way of distinguishing between different types of entrepreneurial activity is the extent to which the activity is based on necessity (i.e. there are no better alternatives for work) or opportunity (where entrepreneurs may be exploiting the potential for new market creation).

In 2011 and 2012, entrepreneurial activity among employees was measured. We now know that culture and regulations can affect how entrepreneurial activity is expressed within nations. In countries where entrepreneurs have much less access

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<sup>1</sup> The active planning phase in which the entrepreneur has done something during the past 12 months to help start a new business, a new business that he/she will at least part own, and which has not paid wages or other income to the owners in the past 3 months.

<sup>2</sup> The second phase is defined as from 4 to 42 months after the new venture begins to provide income to the owners. Entrepreneurs who at least part own and manage a new business that has been paying some form of income to the owners for at least 4 and not more than 42 months are referred to as new firm entrepreneurs.

to social security than employees, for example, employee entrepreneurial activity tends to comprise a higher proportion of overall entrepreneurial activity<sup>3</sup>.

In addition to activity, the GEM survey asks all respondents about their attitudes to entrepreneurial activity, and asks entrepreneurs about their aspirations.

The methodology, sample sizes and weighting systems used for the GEM UK 2012 adult population survey are explained in more detail in the GEM UK 2012 report ([www.gemconsortium.org](http://www.gemconsortium.org)). An important change in the sample design was introduced in 2010 when 10 per cent of respondents in each Government Office Region (GOR) were selected at random from households which had mobile phones but not fixed phone landlines. In 2012, this was increased from 13 per cent to 16 per cent, in line with recent estimates in the proportion of mobile-only households in the UK.

The following report presents a summary of the headline results, and key themes arising from the GEM survey in 2012 and the analysis of the eleven years of GEM data (2002-12).

## **Total Early-Stage Entrepreneurial Activity (the TEA Index)**

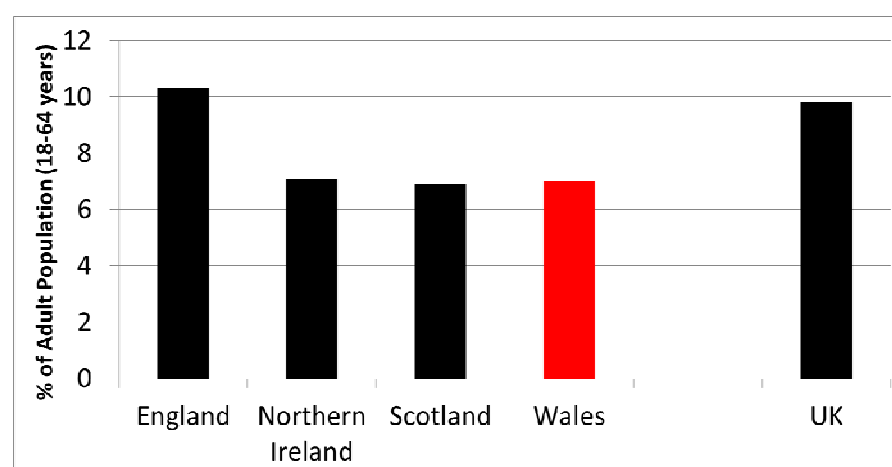
The rate of early-stage entrepreneurship in Wales for 2012 was 7.0 per cent. This was not significantly different from the estimate of 8.1 per cent in 2011 but significantly lower than the estimate of 10.3 per cent for England and the UK estimate of 9.8 per cent. The English TEA rate was significantly higher than the rates for all other home nations in 2012 (Figure 1).

Overall, a TEA rate of 7.0 per cent in Wales equates to around one in every fourteen adults aged 18-64 or around 131,000 individuals, 55 per cent of whom were in the very early stages of starting a business (nascent entrepreneurs 3.9%) and the

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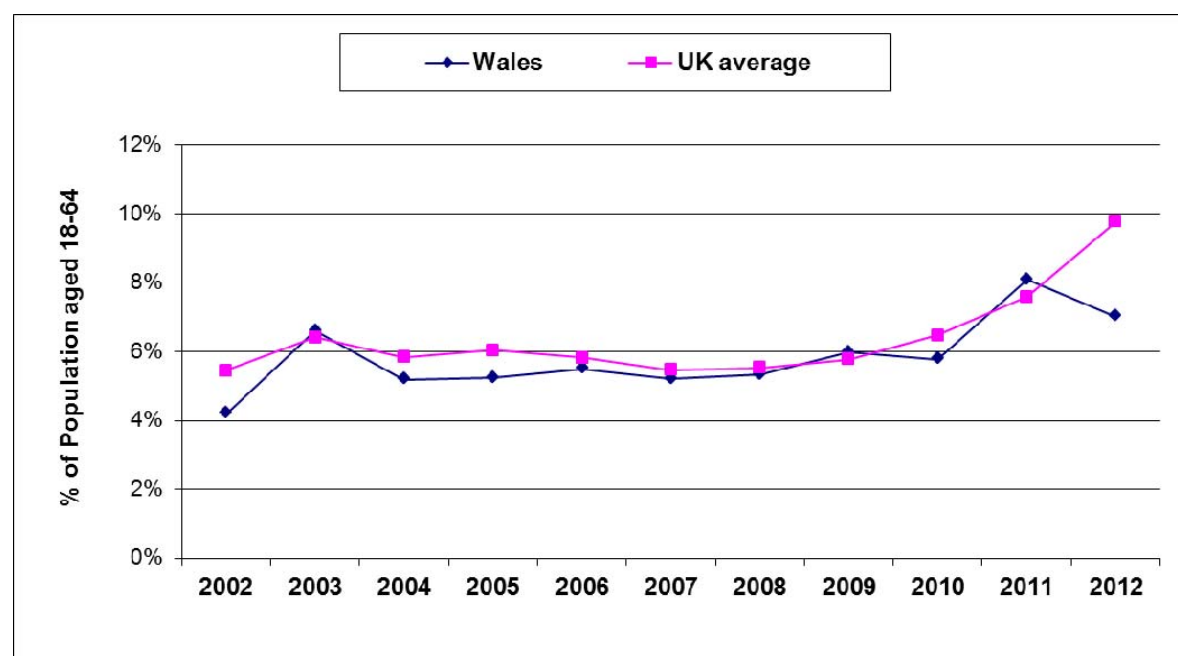
<sup>3</sup> Bosma, N. et al. (2013) Global Entrepreneurship Monitor special report on employee entrepreneurial activity. London: Global Entrepreneurship Research Association.

remainder those who had a new business which was between 3 and 42 months old (3.2%).



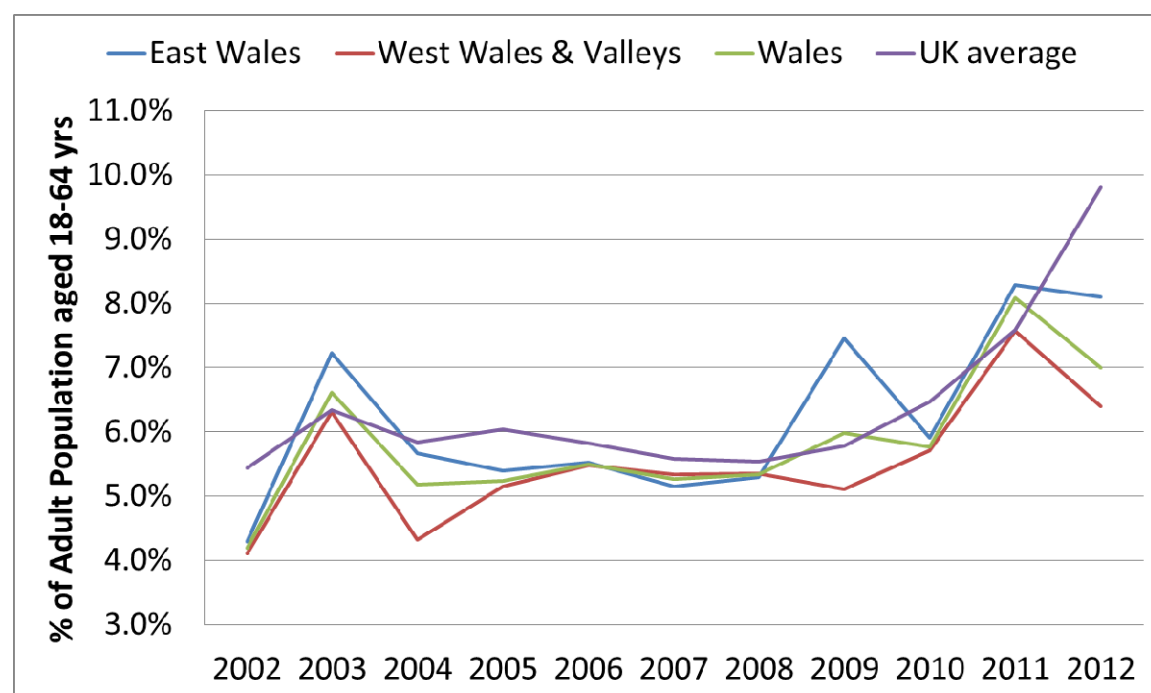
**Figure 1: Total early-stage entrepreneurial activity (TEA) in the UK Home Nations 2012** (Source: GEM APS)

The rate of early-stage entrepreneurial activity in Wales, as in the UK, rose following the recession (Figure 2a). However, in 2012 the nascent entrepreneurial activity rate fell from 4.9 per cent to 3.9 per cent in Wales, while both nascent and new entrepreneurship rates increased significantly in the UK as a whole.



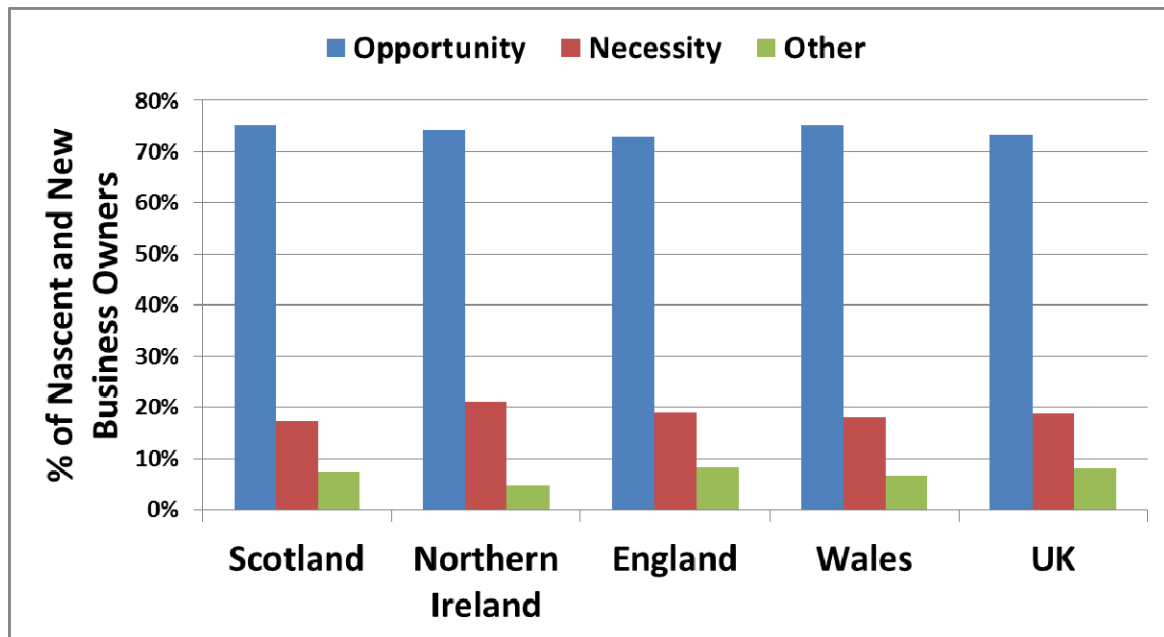
**Figure 2a: Total Early-Stage Entrepreneurial Activity in Wales and the UK (2002-12).** (Source: GEM APS)

Figure 2b suggests that the dip in 2012 in the level of early-stage entrepreneurial activity in Wales may have been concentrated in West Wales & Valleys rather than in East Wales, although none of these differences are statistically significant. The apparent peak in entrepreneurial activity in East Wales in 2009 may be an anomaly due to small sample size.



**Figure 2b: Total Early-Stage Entrepreneurial Activity in East Wales, West Wales & Valleys, Wales and the UK (2002-12).** (Source: GEM APS)

Necessity-driven TEA was 1.3 per cent, close to the 2011 rate of 1.6 per cent, while opportunity-driven TEA was 5.3 per cent, not significantly different from the 6.4 per cent estimate in 2011. Necessity-driven TEA as a proportion of all TEA was 18 per cent, similar to previous years (Figure 3) and around the same as that in other home nations.

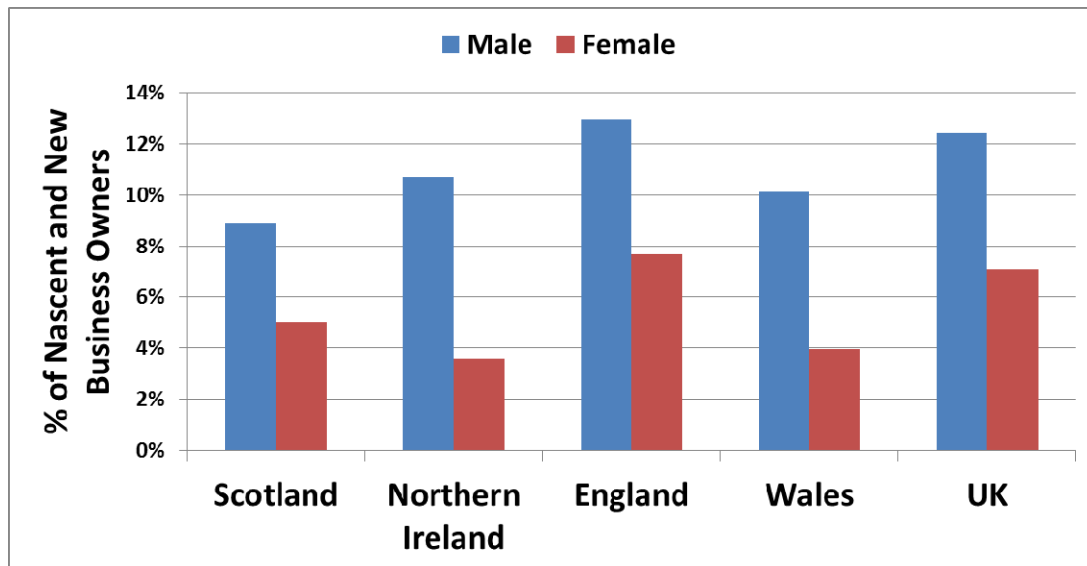


**Figure 3: Opportunity and Necessity Entrepreneurship in the UK Home Nations in 2011.** (Source: GEM APS 2012)

## Who are the Entrepreneurs in Wales?

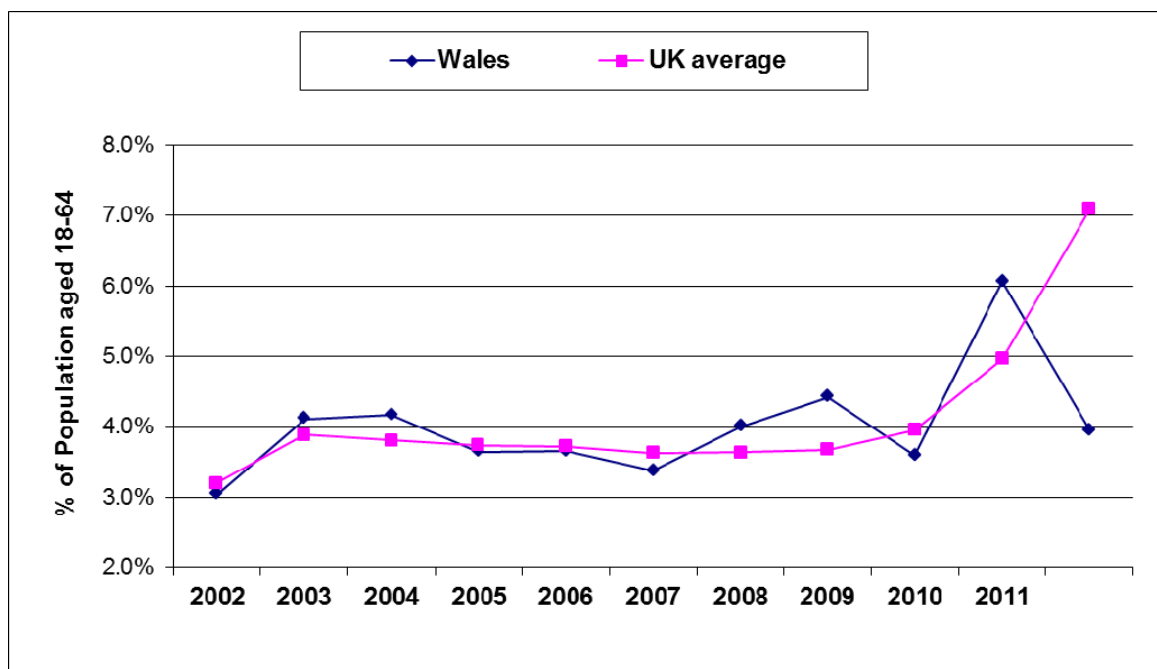
**Gender:** In all the home nations and the UK, males have significantly higher TEA rates than females. In addition, the English male TEA rate was significantly higher than the Scottish male TEA rate in 2012, and the English female TEA rate was significantly higher than the Welsh and Northern Irish TEA rate.

The ratio of female to male early-stage entrepreneurial activity varies markedly across the four home nations. The ratio in Wales dipped from 60 per cent to 39 per cent in 2012. While annual ratios are likely to vary from year to year, the long run average ratios over the 2002 to 2012 period suggest that Wales has a similar ratio, at 53 per cent, to England (47%) and Scotland (50%) but higher than Northern Ireland (35%).



**Figure 4: Total Early-Stage Entrepreneurial Activity in the UK Home Nations in 2012.** (Source: GEM APS 2012)

The female TEA rate in Wales slipped from a record high of 6.1 per cent in 2011 to its long run average of 4.0 per cent in 2012, although this dip was not statistically significant. The Welsh male TEA rate was unchanged at 10.1 per cent. We can see from Figure 5 that female TEA rates in Wales generally match the UK trend. From year to year, they are more volatile because of a relatively small sample size. The medium term trend is upwards.

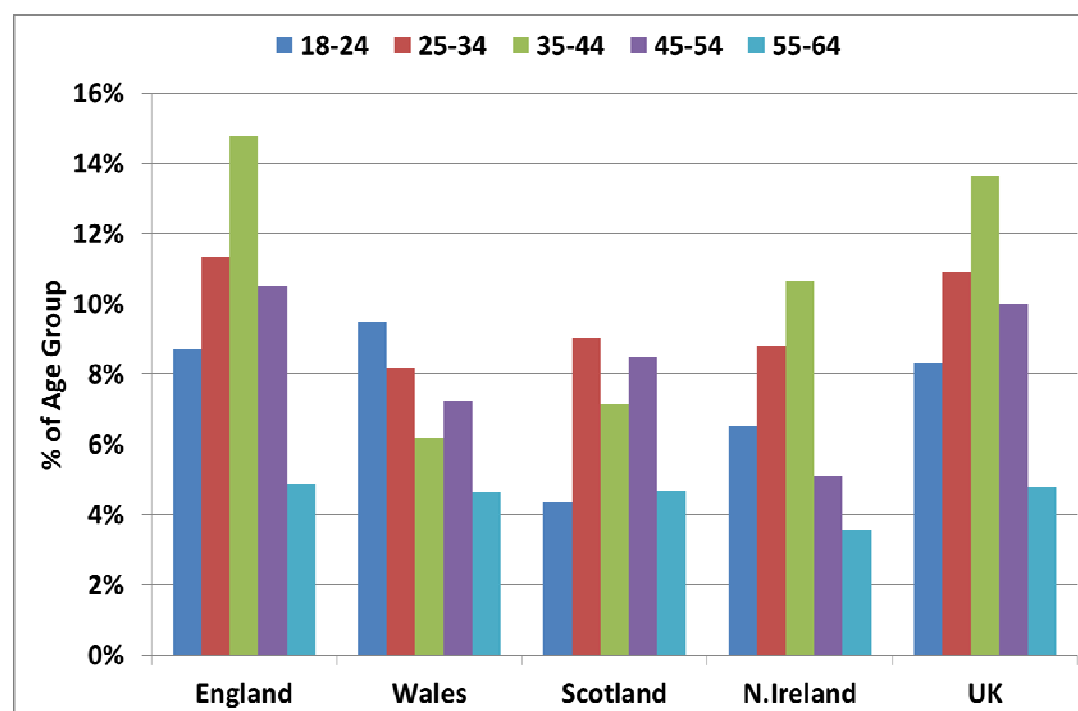


**Figure 5: Total Early-Stage Female Entrepreneurial Activity in Wales and the UK, 2002-2012.** (Source: GEM APS)

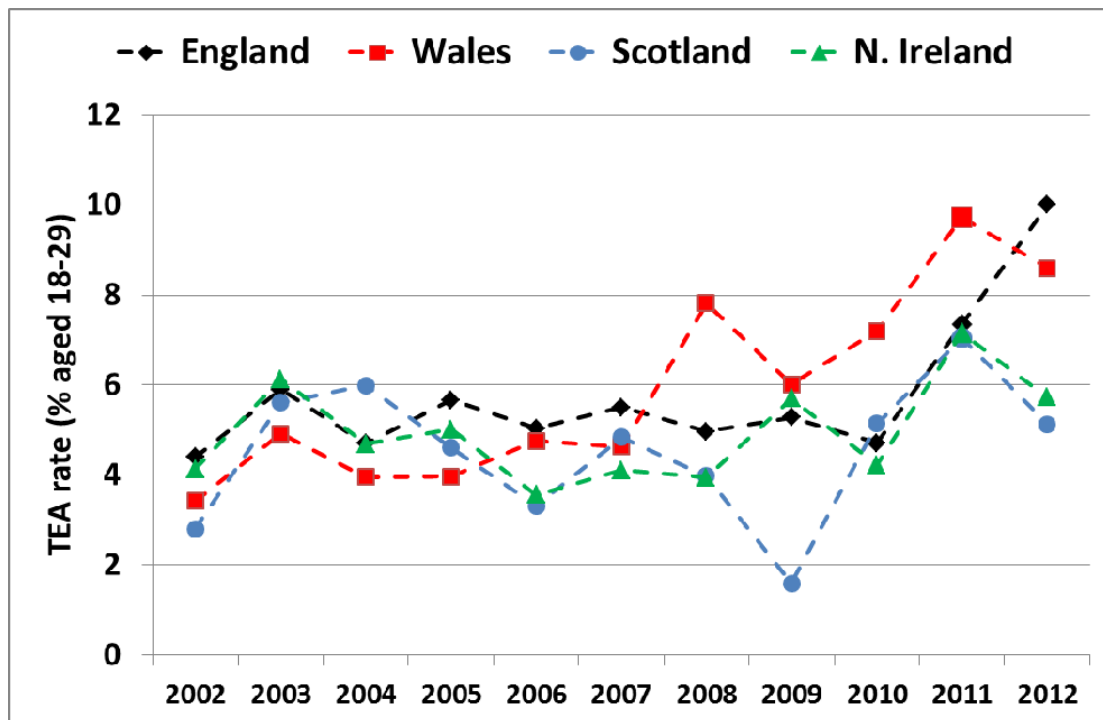


**Age:** As Figure 6 shows, individuals aged between 25-34 years display the highest rate of early-stage entrepreneurial activity in the UK. For several years, the distribution of the TEA rate by age has been shifting towards a younger generation in Wales, and this is particularly noticeable in 2012. Of all the home nations, the TEA rate estimate for the 18-24 age group is highest in Wales. It is not statistically significant different from the rate in the other home nations, however, because there are relatively few individuals in this age group.

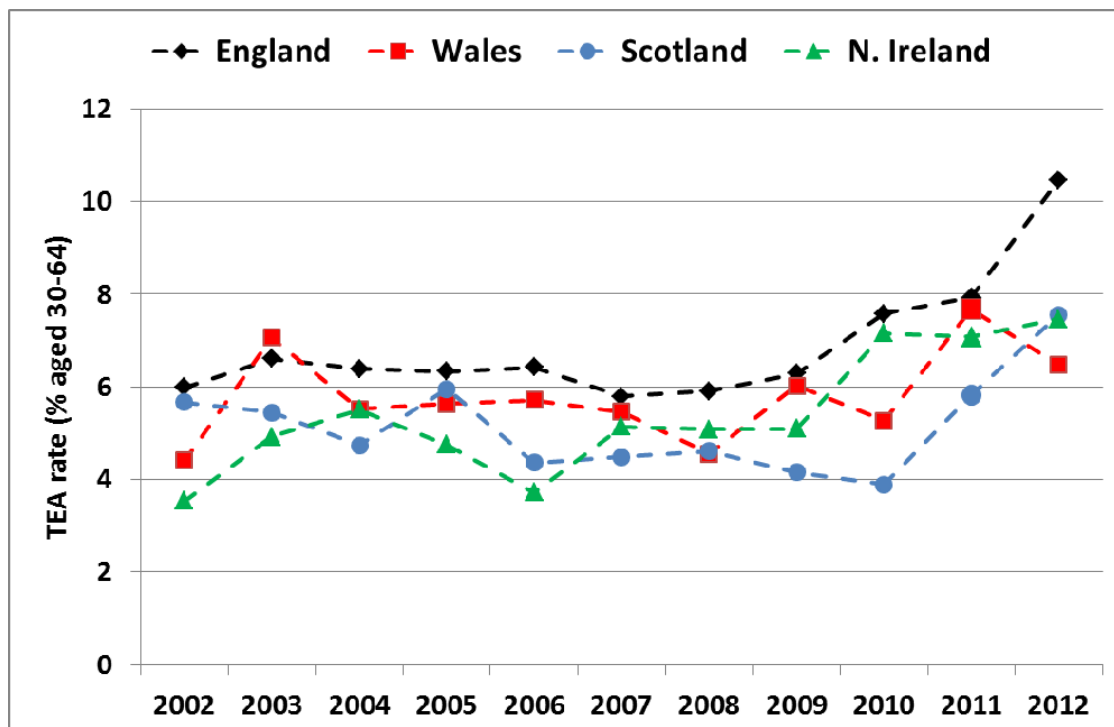
A more helpful analysis is to compare how TEA rates have changed in the 18 to 29 age group (where there seems to be a natural break in UK GEM activity data) and compare them to the 30 to 64 age group. Figures 7 and 8 show that the TEA rate for young adults in Wales has been relatively high in recent years and was finally matched by England in 2012. By contrast, TEA rates among 30 to 64 year olds in Wales are very similar to rates in Scotland and Northern Ireland, and in 2012 they were significantly lower than English TEA rates for this age group.



**Figure 6: Total Early-Stage Entrepreneurial Activity in the UK Home Nations, 2012.** (Source: GEM APS, 2012)

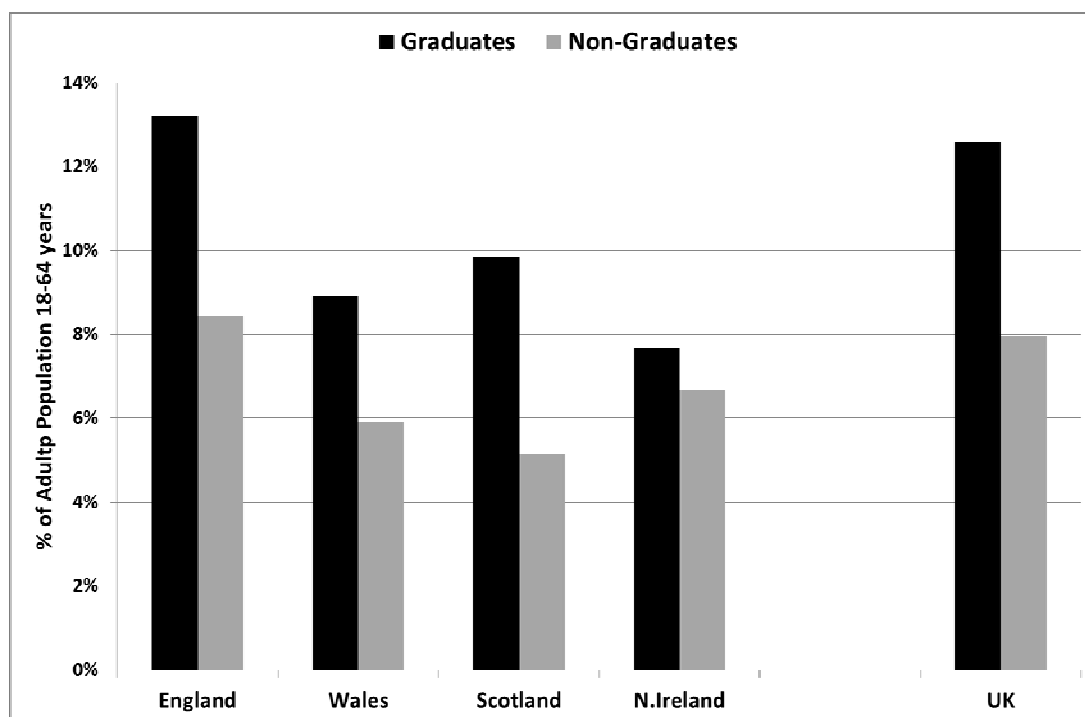


**Figure 7: Trend in Total early-stage Entrepreneurial Activity in the UK Home Nations for 18 to 29 year olds, 2002 to 2012.** (Source: GEM APS, 2002 to 2012)



**Figure 8: Trend in Total early-stage Entrepreneurial Activity in the UK Home Nations for 30 to 64 year olds, 2002 to 2012.** (Source: GEM APS, 2002 to 2012)

**Education:** The average level of total early-stage entrepreneurial activity for graduates in the UK in 2012 was 12.6 per cent, up significantly from 9.4 per cent in 2011 (Figure 9), and significantly higher than for non-graduates (8.0%, not significantly different from the 2011 estimate of 6.5 per cent). It was also significantly higher than the TEA rate for graduates currently residing in Wales (8.9%). The Welsh graduate TEA rate was similar to the previous year (8.5%) and not significantly different from the TEA rate for non-graduates in Wales (5.9%, down but not significantly from 7.9% in 2011). By contrast, graduate TEA rates were significantly higher than non-graduate TEA rates in England and Scotland.



**Figure 9: Total Early-Stage Entrepreneurial Activity in the UK Home Nations by Graduate Status, 2012.** (Source: GEM APS, 2012)

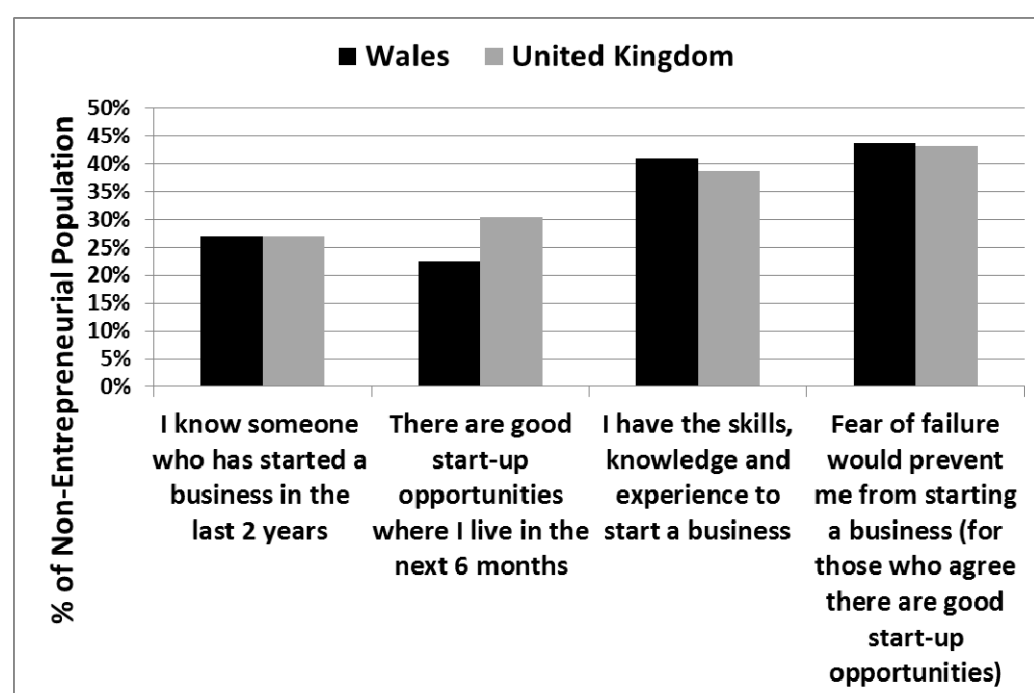
## Entrepreneurial Attitudes and Intentions

GEM has developed a number of attitudinal statements which provide a proxy for entrepreneurial potential in a country/region. They include knowing a person who has started a business in the last 2 years, perception of good opportunities for start-

up, self-belief in possessing the relevant skills to set up in business and the prevalence of fear of failure as a deterrent to setting up in business.

GEM attitudinal data is best treated at the group rather than individual level, because individuals who are already entrepreneurs may feel compelled to provide positive answers in the Adult Population Survey (APS). Hence, as in the last three years, we report attitudinal data only for that portion of the population who are not already entrepreneurs.

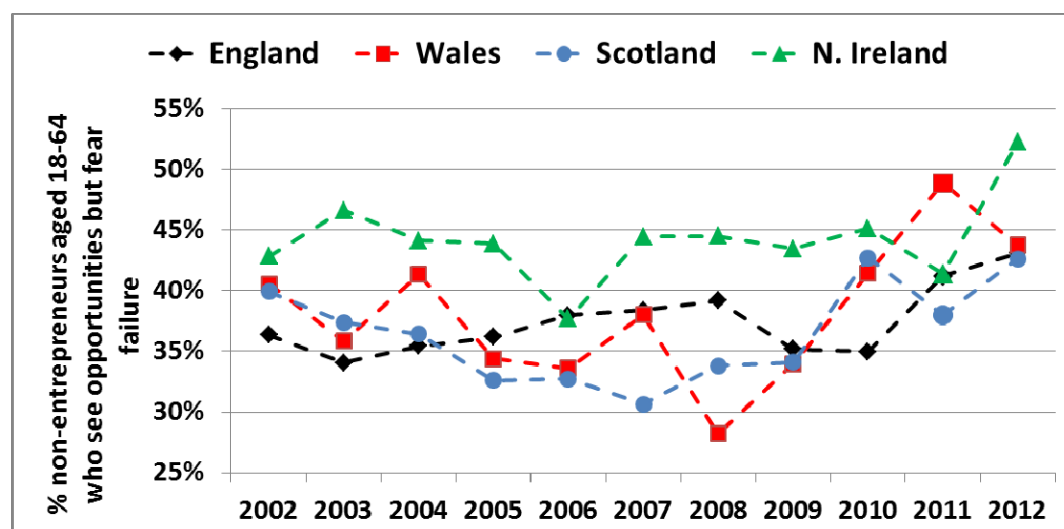
In Wales, one in four (27.0%) of individuals state that they know an entrepreneur. This is the same as the UK as a whole (Figure 10), and much the same as in previous years. In Wales two-fifths (41.0%) of non-entrepreneurs believe they have the skills to set up in business compared – again similar to the UK average at 38.7 per cent.



**Figure 10: Entrepreneurial Attitudes and Perceptions in Wales and the UK (2012).** (Source: GEM APS, 2012)

The proportion of the population seeing good opportunities for starting a business but reporting that the fear of failure would prevent them starting a business fell in 2012 from 48.9 per cent to 43.8 per cent, compared with a rise in the UK, from 41.4 per cent to 43.3 per cent, although neither of these differences is statistically

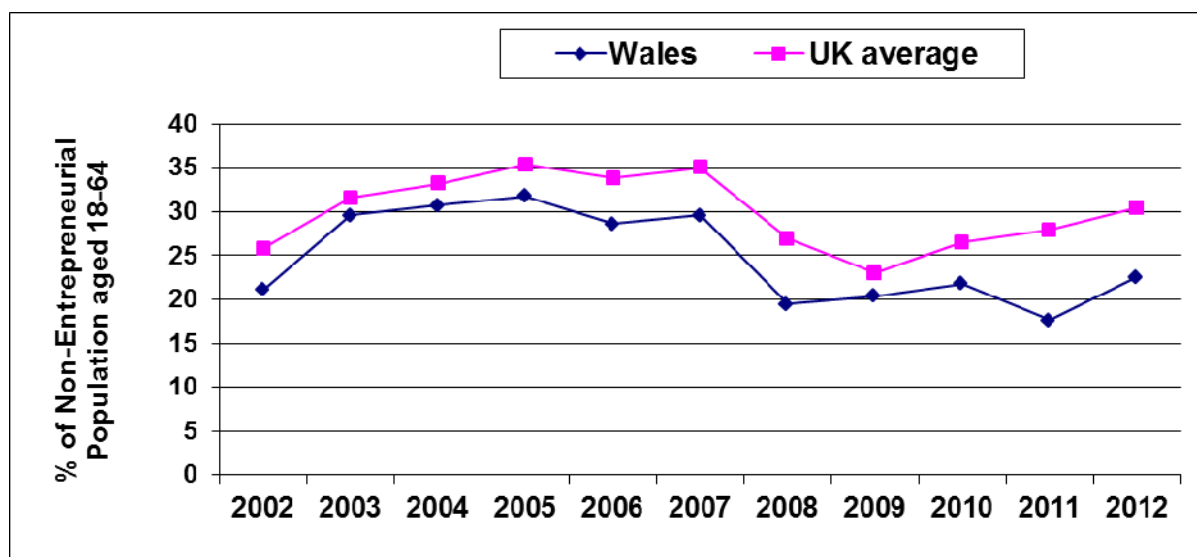
significant. Figure 11 shows that fear of failure rose more sharply in Wales than in other home nations since the onset of the recession in 2007, but it is now the same as the rate in England and Scotland.



**Figure 11: Fear of Failure among those who see Opportunities in the UK Home Nations, 2002-12.** (Source: GEM APS)

Because of the current high fear of failure rate, we offered those who saw opportunities but feared failure a list of possible reasons and asked if they applied to them. The most frequently mentioned reason in Wales was fear of losing one's property (83.2%; UK: 67.1%) and the second most frequently mentioned reason was fear of personal bankruptcy (74.5 per cent; UK: 77.3 per cent). The third reason was "you would be embarrassed if your business failed" and this was selected by 63.6 per cent of Welsh respondents, compared with only 39.8 per cent across the UK.

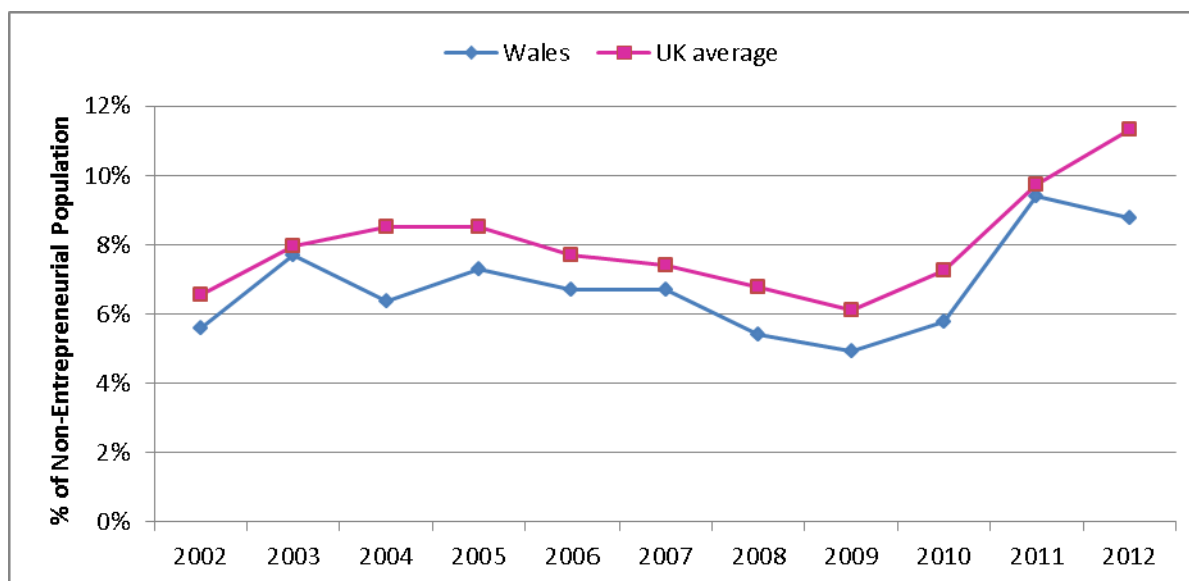
In the 2012 survey, only 22.6 per cent of the non-entrepreneurial working age population in Wales agreed there were good opportunities for starting a business in their local area in the next six months, compared with 30.5 per cent of the UK non-entrepreneurial working age population. This is significantly higher than the 2011 estimate. However, there is still a significant gap in opportunity perception with the UK and specifically with England.



**Figure 12: Perception of Start-up Opportunities in Wales and the UK, 2002-12.**  
(Source: GEM APS)

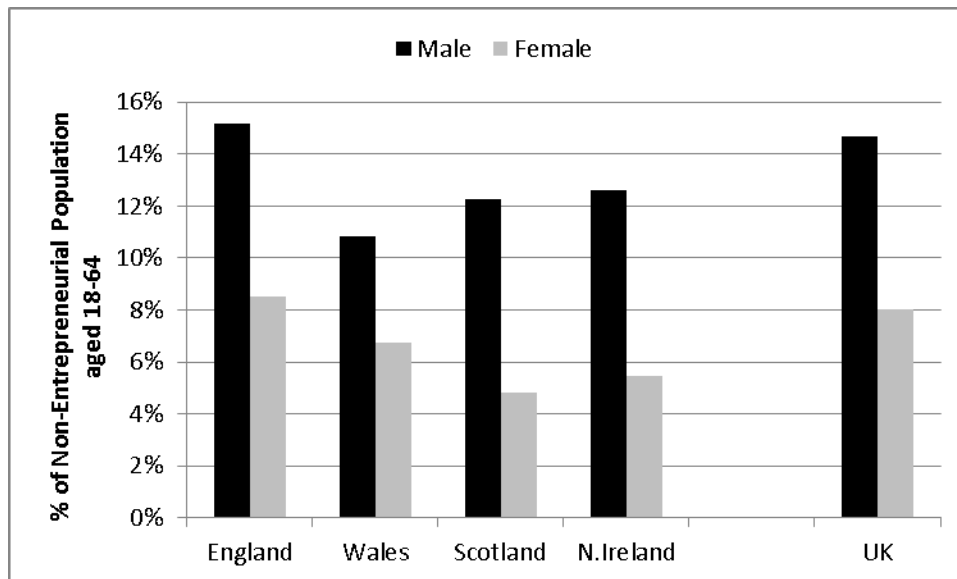
In 2012, respondents who said there were not plenty of opportunities to start a business in their local area were asked why they thought this. The most frequent reason in Wales (44.1% of non-entrepreneurially active respondents who did not perceive opportunities) was the wider economic climate (UK: 36.2%). The next most frequent response was “no business idea (11.2%; UK: 7.4%) followed by “unsuitable area” (10.9%; UK: 7.9%).

Looking to the future, the proportion of non-entrepreneurial working age adults in Wales who expect to start a business within the next three years was down slightly at 8.8 per cent (9.4% in 2011) (Figure 13). The UK estimate rose from 9.8 per cent to 11.3 per cent, but this rise was not significant. This finding matches the general pattern this year that attitudes and activity in Wales have not changed appreciably since 2011.



**Figure 13: Future Start-up Expectations (within 3 years) in Wales and the UK, 2002-12.** (Source: GEM APS)

In 2012, there was a significant difference between the proportion of non entrepreneurially-active men and women in Wales who reported that they intend to start a business in the next three years (Figure 14). In 2012, 6.8 per cent of such women in Wales expected to start a business in the next 3 years compared to 10.8 per cent of men. The ratio of female to male future start-up intentions in Wales was 63 per cent, up from 55 per cent in 2011 and higher than that of other home nations. In 2011 the Scottish rate was highest (75%) however the Scottish ratio has fallen back in 2012 to 39% so not too much should be read into this. Overall, start-up intentions have not changed significantly in the past year.



**Figure 14: Future Start-up Expectations (within 3 years) in the UK Home Nations by Gender, 2012.** (Source: GEM APS, 2012)

## Welsh Language fluency and Entrepreneurial Activity

There was no significant difference in 2012 in the TEA rate of those in Wales who were fluent in spoken and written Welsh (10.3%), who could speak and understand some Welsh (5.9%) and who had little or no Welsh skills (6.8%).

## Training, Awareness and Entrepreneurial Activity

In 2012 16.3 per cent of nascent and new entrepreneurs aged 18 to 24 and 12.4 per cent of entrepreneurs aged 25 to 30 had heard of Dynamo Resources, compared with 8.3 per cent of others aged 18 to 24 and 8.6 per cent of others aged 25 to 30. These differences were not significantly different, but the younger individuals did appear to be more likely to have heard of Dynamo Resources (16.3%) than those aged 25 to 30 (8.6%). Overall, 13.1 per cent of young adults aged 18 to 30 had heard of Dynamo Resources, similar to the 2011 estimate of 12.8 per cent.

In 2010 we included a more precise question on whether people aged 18-30 had taken part in any activities at school, college or university that made them think about starting a business or being their own boss. Almost half (46.7%) reported that they had, and this figure was 39.7 per cent in 2011 and remained the same at 41.5 per



cent in 2012. At 53.9 per cent (up from 50.8%), the estimate for Northern Ireland was significantly higher than that for Wales or England (37.4%) but the same as Scotland (44.6 per cent). We also asked a slightly different question: “As a result of something you did at school, college or university, would you think about starting your own business?” Answers were very similar, with 42.2 per cent answering yes in 2012, compared with 42.3 per cent who answered yes in 2011. A similar proportion in England, (43.1%), Scotland (46.6%) and Northern Ireland (45.5%) answered yes.

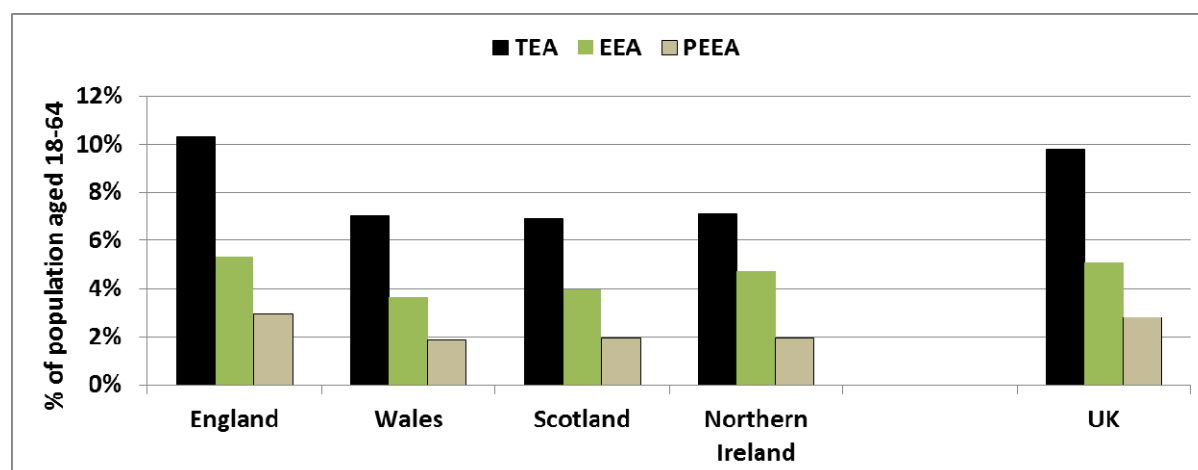
In 2012, very similar proportions of people in the home nations had heard of Enterprise Week or Global Entrepreneurship Week: 24.3 per cent in Wales, 21.0 per cent in England and Scotland, and 23.3 per cent in Northern Ireland. All of these estimates were very close to those of 2011.

## **Entrepreneurial Employee Activity**

In 2011, GEM measured entrepreneurial employee activity (EEA) for the first time, defining it as the proportion of employees aged 18-64 who play a leading role in the creation and development of new business activities for the organization in which they work, specifically those involved in developing or launching new goods or services or setting up a new business unit, a new establishment or subsidiary. GEM has developed a range of measures for this activity. The main measure is the proportion of employees in the working age population who are currently engaged in leading new business activities for their employer (EEA). These activities can be either idea development for a new activity or preparation and implementation of a new activity. The individuals can be employees of private for-profit, government and not-for-profit organisations. Figure 15 compares TEA, EEA and PEEA, which is the rate for entrepreneurial employees in private for-profit organisations, using the same denominator (per cent of respondents aged 18-64) to make them comparable.

The EEA rate was 5.1 per cent in the UK, 5.3 per cent in England, 3.6 per cent in Wales, 4.0 per cent in Scotland, and 4.7 per cent in Northern Ireland. The PEEA rate estimates for 2012, which are a subset of EEA, were similar to those for 2011: UK 2.8 per cent (2011 2.3 per cent), England 2.9 per cent (2011: 2.4%), Wales, Scotland and Northern Ireland 1.9 per cent (2011: 1.5%, 1.8% and 1.7%, respectively). Figure

15 compares the TEA, EEA and PEEA rates for the four home nations and the UK in 2011. There is no significant difference between the employee activity rates of home nations, unlike the TEA rate where England has significantly higher activity than the other home nations.



**Figure 15: Total early-stage Entrepreneurial Activity, Employee Entrepreneurial Activity and Private-sector Entrepreneurial Employee Activity in the UK Home Nations, 2012.** (Source: GEM APS, 2012)

## Concluding Observations

A remarkable feature of entrepreneurship in contemporary Wales is the decline in activity rates with age. This is very unusual. Across the world, entrepreneurial activity tends to increase rapidly with age up to around 35 or so and then gently decline. In Wales, as Figure 6 showed, there is more or less a straight line decline with age. Indeed, the TEA rate for 35-44 year olds in Wales in 2012 was less than half the rate in England. This matters because people in their 30s and 40s usually benefit from a combination of experience and energy. Younger adults tend to have the energy but not the enthusiasm, while energy levels are lower among older adults. With TEA rates among younger adults on a par with those in England, more attention may need to be paid to the relatively underperforming middle group of those from 35 to 54 years of age.

In Wales, 56 per cent of those aged 35-44 who saw opportunities for starting a business, also said they would not start one in case it might fail. This is the highest

proportion of any age group in Wales, and about ten percentage points above the rate in the other home nations of the same age group. Fear of losing one's house and of personal bankruptcy appears to be relatively high in Wales, and there may be a connection with this low rate of start-up among people of peak start-up age in Wales. Further research could investigate the reasons for this.

## Disclaimer

This report is based on data collected by the GEM consortium and the GEM UK team; responsibility for analysis and interpretation of the data is the sole responsibility of the authors.

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