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# GEM UK: Wales Report 2011

Jonathan Levie and Mark Hart



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The Global Entrepreneurship Monitor (GEM) is an international project involving 54 countries in 2011 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 3,003 adults aged over 16 years of age in 2011 as a result of the Welsh Government boosting the national sample.

## Main Findings

- **The rate of early-stage entrepreneurship (TEA) in Wales for 2011 was 8.1 per cent, up significantly from 5.8 per cent in 2010. This compared with TEA rates of 7.6 per cent in the UK overall and 7.7 per cent for the English regions.**
- **Necessity-driven TEA rose from 1.1 per cent to 1.6 per cent, while opportunity-driven TEA rose from 4.1 per cent to 6.4 per cent.**
- **The female TEA rate in Wales rose to a record high of 6.1 per cent in 2011 (UK 5.0 per cent) and the female to male ratio of TEA was 60 per cent, up from 45 per cent in 2010 (UK 49 per cent, up from 44 per cent).**
- **The TEA rate of young adults aged 18 to 29 continued to rise in 2011. The TEA rate among this age group has almost tripled in Wales from 3.4 per cent in 2002 to 9.7 per cent in 2011 (UK: 4.2 per cent to 7.4 per cent), compared with a milder increase in the TEA rate among 30 to 64 year olds from 4.4 per cent to 7.7 per cent (UK: 5.8 per cent to 7.7 per cent).**
- **Attitudes among the non-entrepreneurial population have generally been more negative in 2011 than in 2010. Only 17.7 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 27.9 per cent across the UK. This is the lowest rate of perception of start-up opportunities in Wales since 2002, and a statistically significant decline on 2010.**
- **Some 48.9 per cent of non-entrepreneurial individuals of working age in Wales (UK: 41.4 per cent) agreed they were afraid of starting a business in case it might fail, up each year from a low of 28.2 per cent in 2008 (UK: 38.3 per cent).**
- **The proportion of non-entrepreneurial working age adults in Wales who expect to start a business within the next three years rose significantly from 5.2 per cent in 2010 to 7.6 per cent in 2011.**
- **The Private Sector Entrepreneurial Employee Activity (PEEA) rate, or the proportion of employees in private for-profit organisations who are currently engaged in leading new business activities for their employer, was 1.5 per cent, compared with 2.3 per cent for the UK.**

## **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 ninth year in which the WG has participated in GEM. Of the 246,000 respondents to GEM UK surveys for the period 2002-2011, over 41,000 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 conducting trend analysis for important sub-populations in Wales, such as young 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.
- 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, entrepreneurial activity among employees was measured, adding to our knowledge about the variety of contexts in which entrepreneurial activity can be expressed.

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 2011 adult population survey are explained in more detail in the GEM UK 2011 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.

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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.

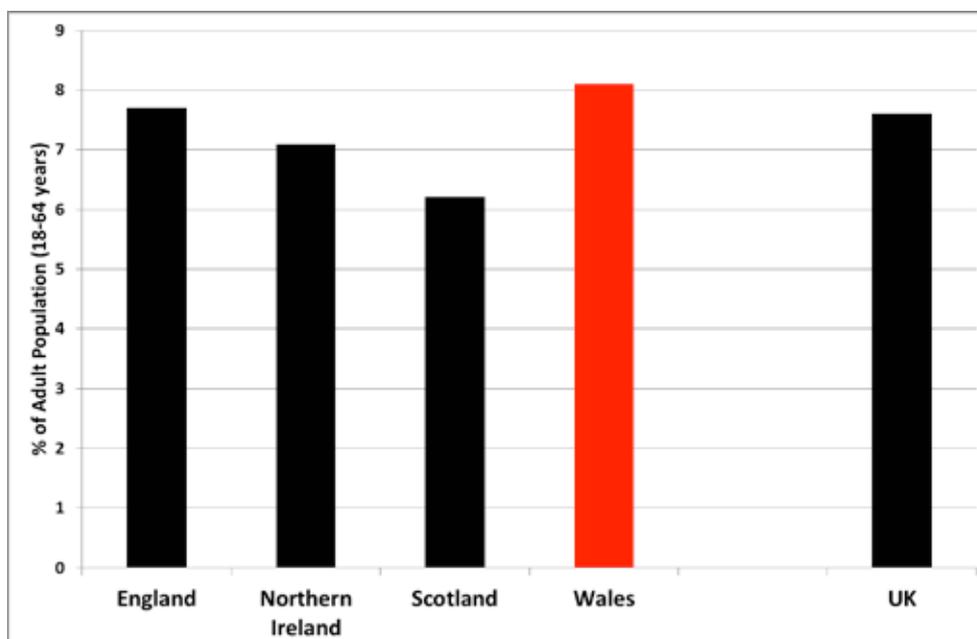
In 2011, this was increased to 13 per cent, in line with recent estimates in the proportion of mobile-only households in the UK.

The following report presents a summary of the headline results, and key themes arising from the GEM survey in 2011 and the analysis of the ten years of GEM data (2002-11).

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

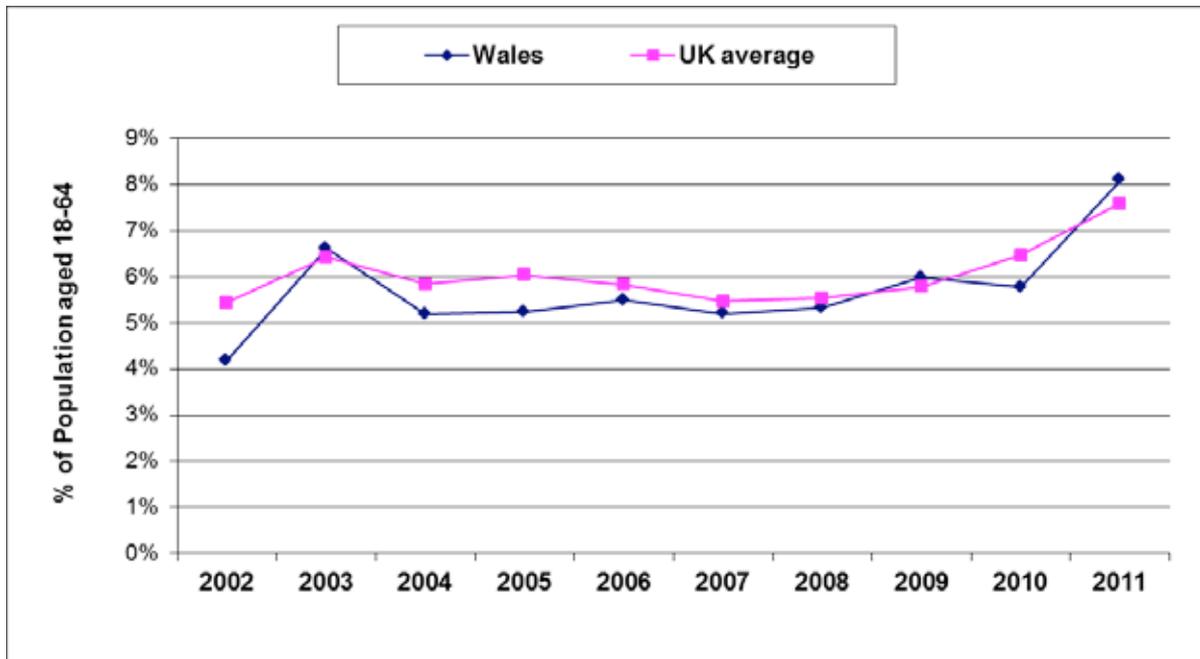
The rate of early-stage entrepreneurship in Wales for 2011 was 8.1 per cent compared to 7.6 per cent in the UK overall and 7.7 per cent for the English regions. The TEA rates for Wales, the other home nations and the UK in 2011 were not significantly different from each other statistically (Figure 1).

Overall, a TEA rate of 8.1 per cent in Wales equates to around one in every twelve adults aged 18-64 or over 180,000 individuals, 60 per cent of whom were in the very early stages of starting a business (nascent entrepreneurs 4.9 per cent) and the remainder those who had a new business which was between 3 and 42 months old (3.2 per cent).



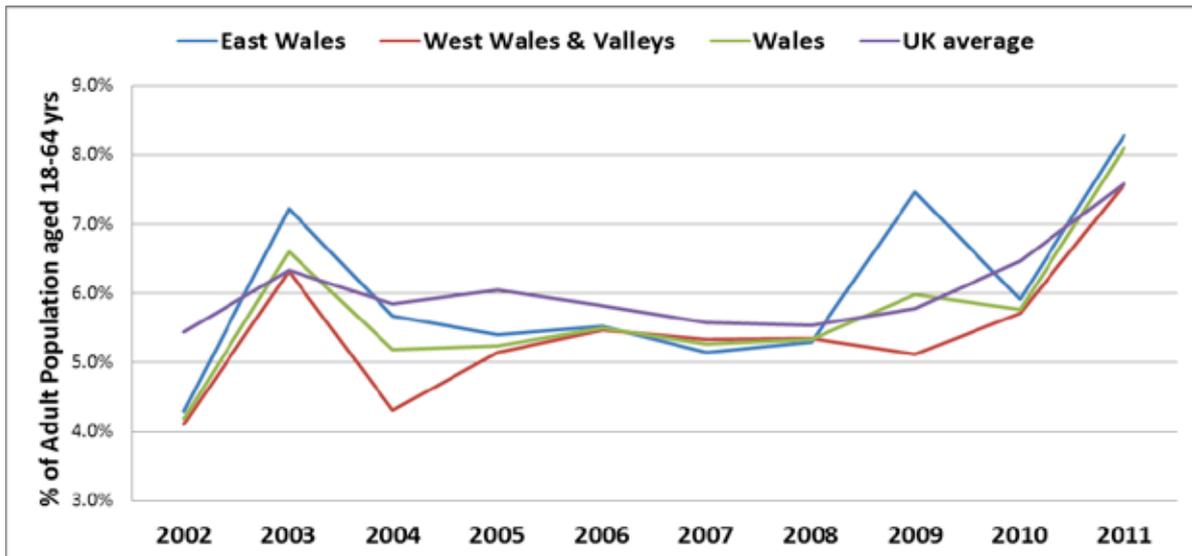
**Figure 1: Total early-stage entrepreneurial activity (TEA) in the UK Home Nations 2011 (Source: GEM APS)**

Looking at the 2002-2011 period we observe that the rate of early-stage entrepreneurial activity in Wales, as in the UK, has risen through the recession (Figure 2a). The level of early-stage entrepreneurial activity in Wales has tracked the UK trend very closely in recent years.



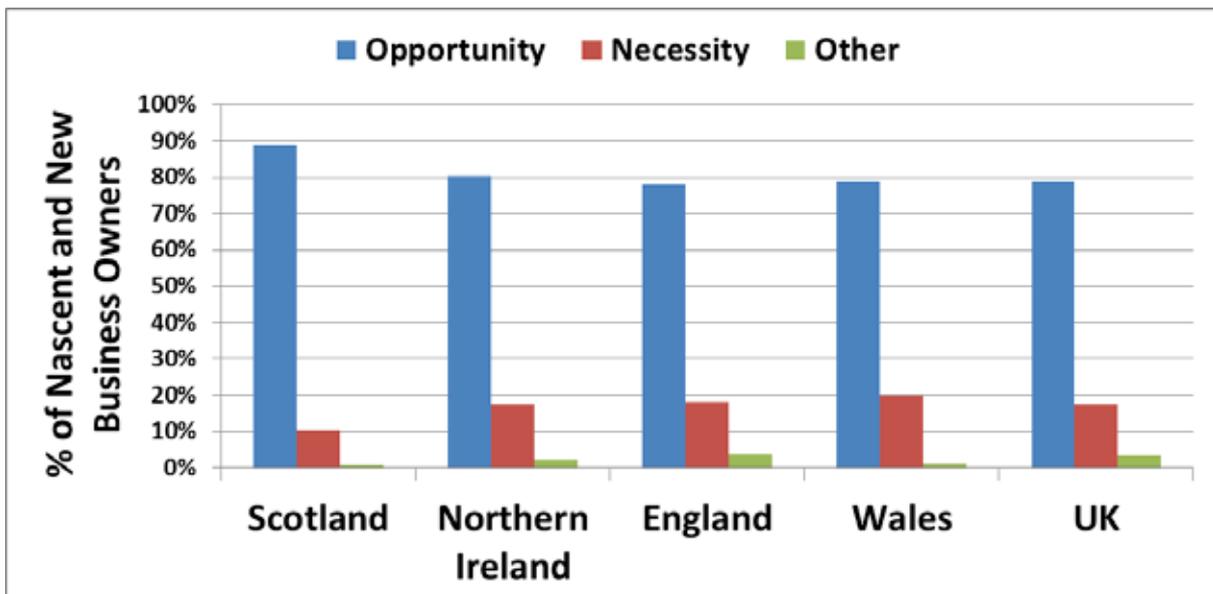
**Figure 2a: Total Early-Stage Entrepreneurial Activity in Wales and the UK (2002-10).** (Source: GEM APS)

Figure 2b shows that in 2011 the level of early-stage entrepreneurial activity in the two NUTS 2 regions in Wales (East Wales and West Wales & Valleys) rose in line with the Welsh and UK average. The apparent peak in entrepreneurial activity in East Wales in 2009 may be an anomaly due to small sample size; overall, a rising trend since 2008 is more likely.



**Figure 2b: Total Early-Stage Entrepreneurial Activity in East Wales, West Wales & Valleys, Wales and the UK (2002-11).** (Source: GEM APS)

Both “necessity-driven” and “opportunity-driven” TEA rates were significantly higher in Wales in 2011 than in 2010. Necessity-driven TEA rose from 1.1 per cent to 1.6 per cent, while opportunity-driven TEA rose from 4.1 per cent to 6.4 per cent. Necessity-driven TEA as a proportion of all TEA was 20 per cent, similar to previous years (Figure 3) and around the same as that in other home nations except for Scotland. Wales had a significantly higher level of necessity entrepreneurship in 2011 than Scotland.

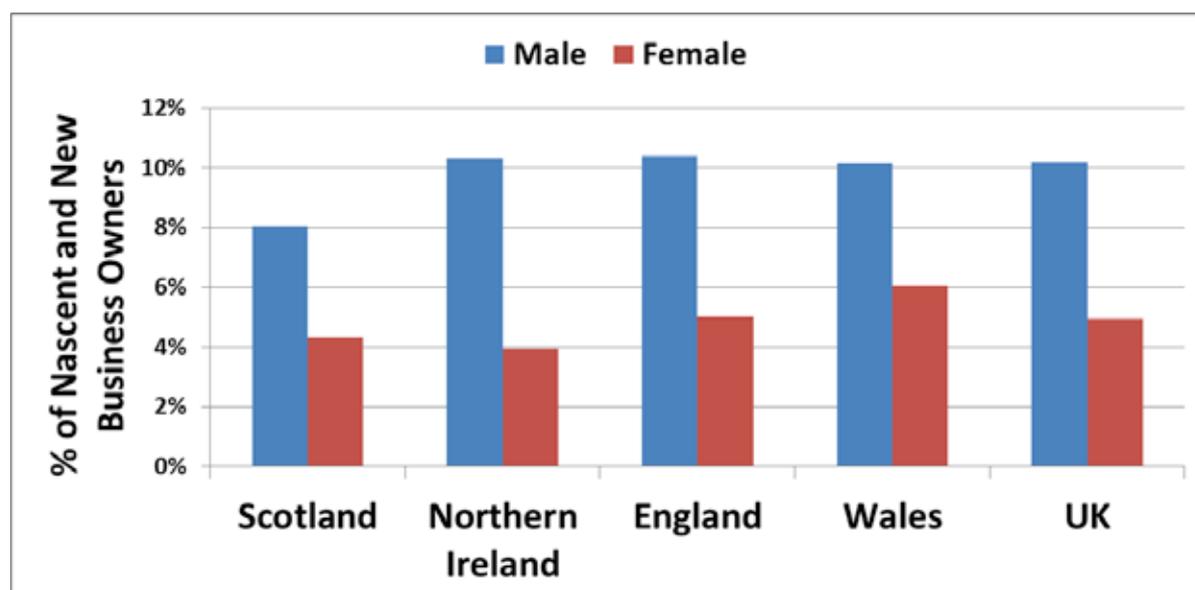


**Figure 3: Opportunity and Necessity Entrepreneurship in the UK Home Nations in 2011.** (Source: GEM APS 2011)

## Who are the Entrepreneurs in Wales?

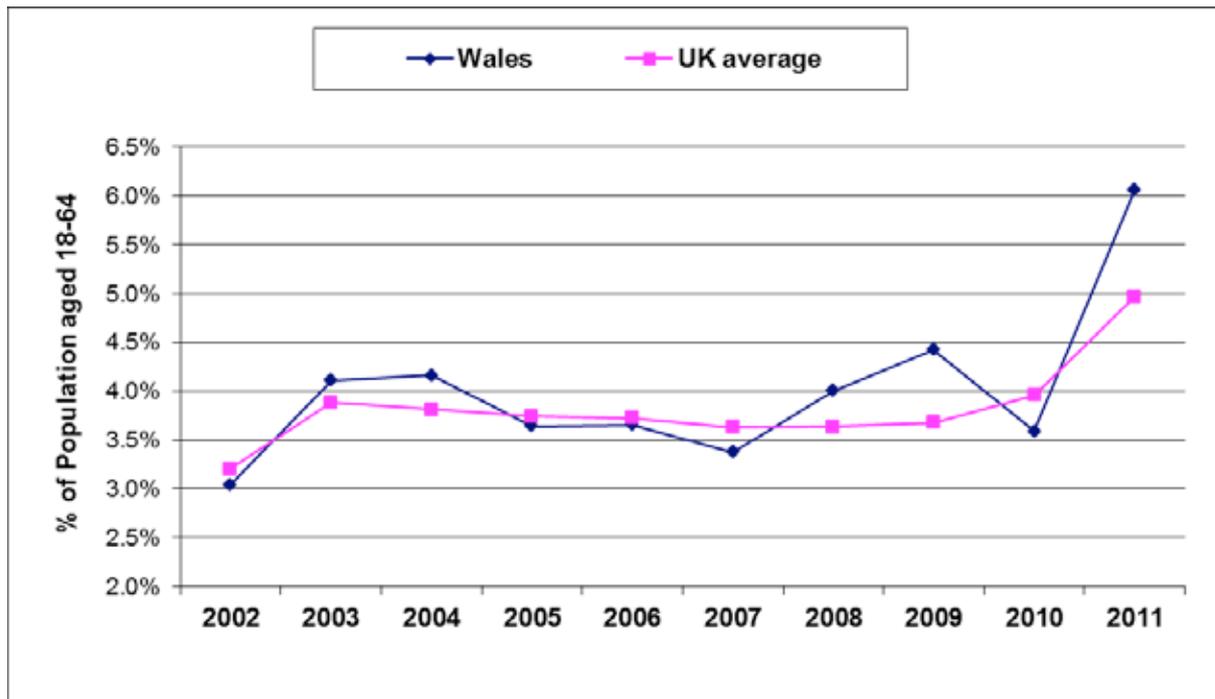
**Gender:** In all the home nations and the UK, males have significantly higher TEA rates than females. However, neither gender-based TEA rates differ significantly across the home nations, or between a home nation and the UK average.

The ratio of female to male early-stage entrepreneurial activity varies markedly across the four home nations. The ratio in Wales at 60 per cent returned to 2009 levels after a dip in 2010 to 45 per cent. While annual ratios are likely to vary from year to year, the long run average ratios over the 2002 to 2011 period suggest that Wales has a similar ratio, at 51 per cent, to England (47 per cent) and Scotland (49 per cent) but higher than Northern Ireland (36 per cent).



**Figure 4: Total Early-Stage Entrepreneurial Activity in the UK Home Nations in 2011.** (Source: GEM APS 2011)

The female TEA rate in Wales rose to a record high of 6.1 per cent in 2011. 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. This may well be the reason for the (non-statistically significant) apparent dip in rates between 2009 and 2010: the medium term trend is upwards.



**Figure 5: Total Early-Stage Female Entrepreneurial Activity in Wales and the UK, 2002-2011.** (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 and this is also true for Wales. However, the 18-24 age group in Wales appears to have a relatively high TEA rate in comparison to the other home nations. This difference is not statistically significant, but there are relatively few individuals in this age group. A more meaningful 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 a near tripling of the TEA rate among 18 to 29 years olds in Wales from 3.4 per cent in 2002 to 9.7 per cent in 2011, compared with a milder increase in the TEA rate among 30 to 64 year olds from 4.4 per cent to 7.7 per cent. This increase in TEA rates among 18-29 year olds in Wales is larger than the other home nations, and is more than double the increase in the 20-64 rate.

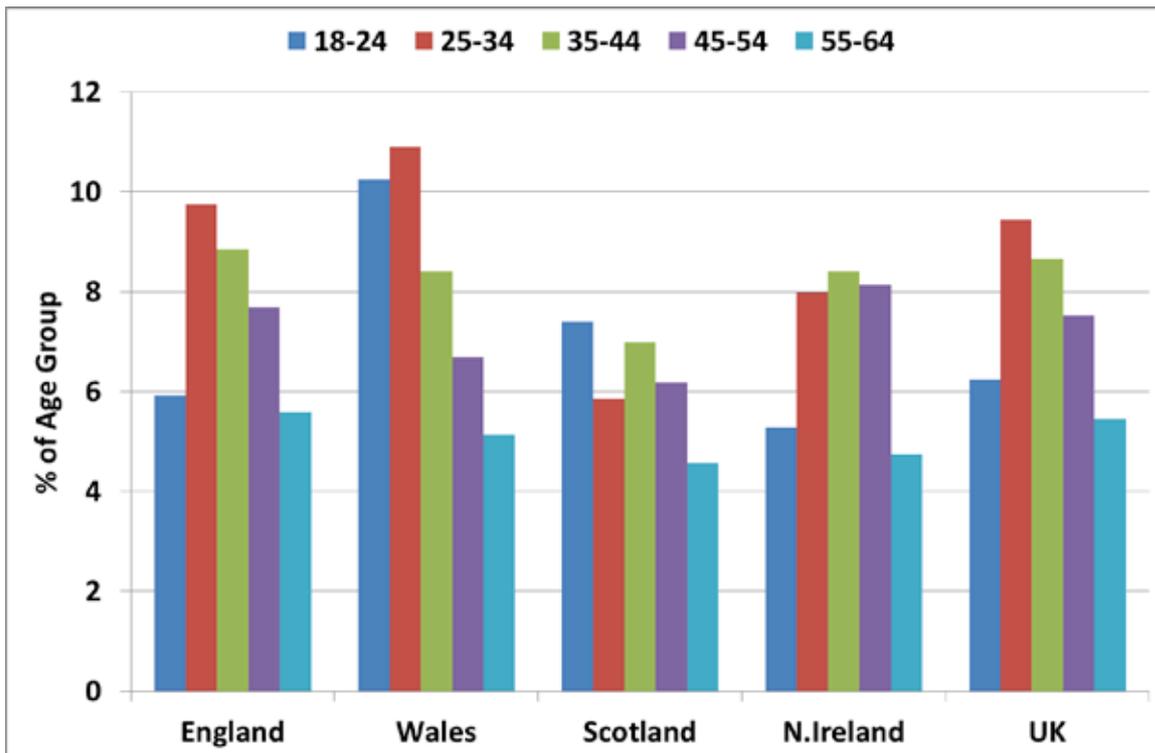


Figure 6: Total Early-Stage Entrepreneurial Activity in the UK Home Nations, 2011. (Source: GEM APS, 2011)

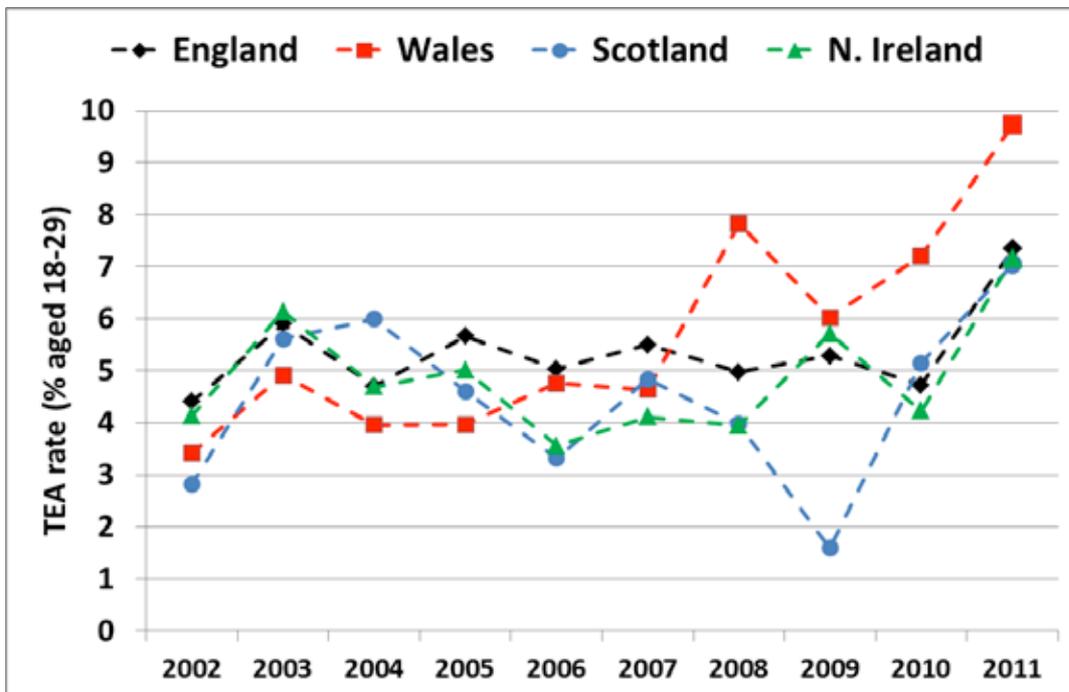
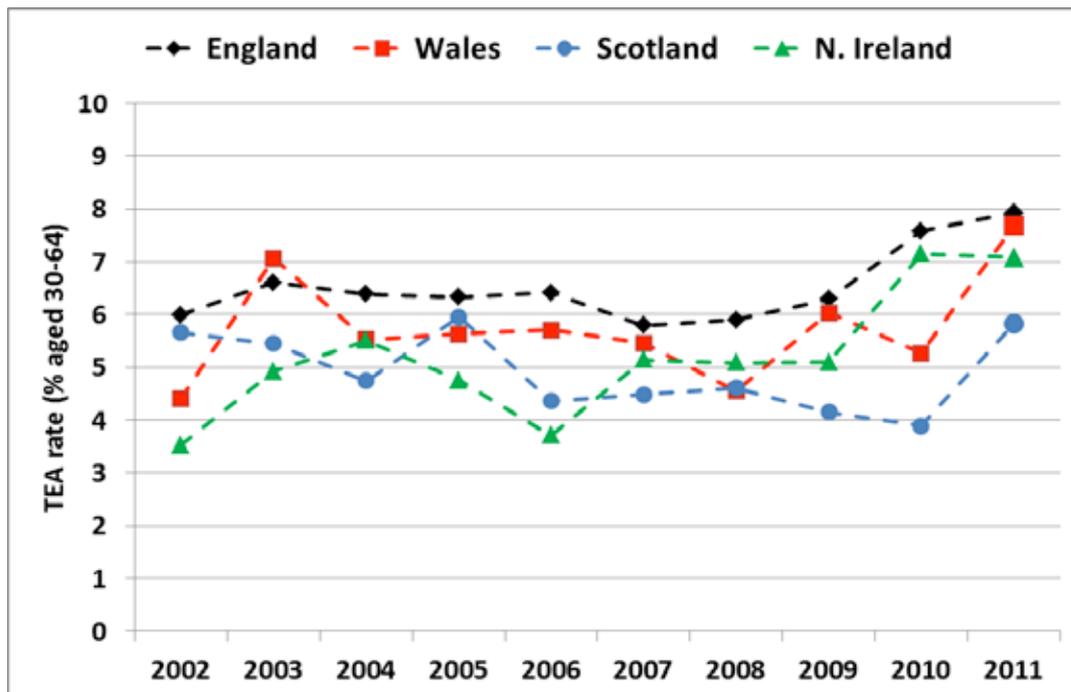
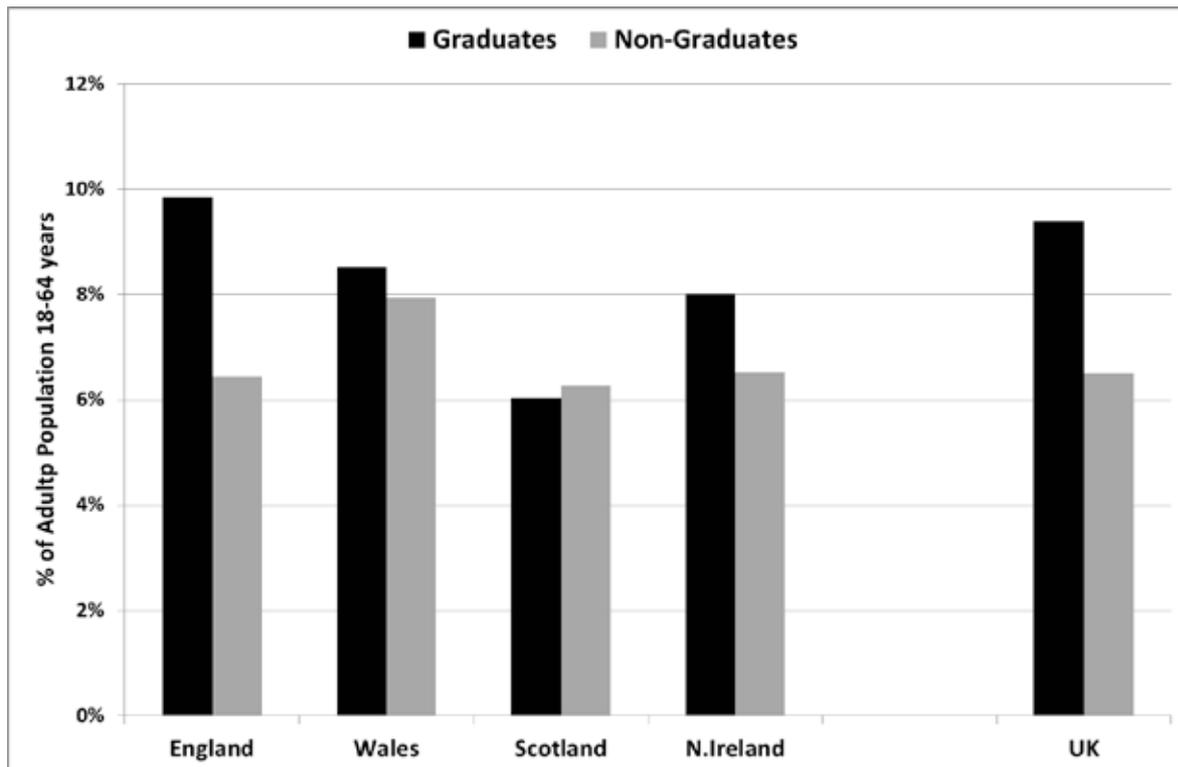


Figure 7: Trend in Total early-stage Entrepreneurial Activity in the UK Home Nations for 18 to 29 year olds, 2002 to 2011 (Source: GEM APS, 2002 to 2011)



**Figure 8: Trend in Total early-stage Entrepreneurial Activity in the UK Home Nations for 30 to 64 year olds, 2002 to 2011 (Source: GEM APS, 2002 to 2011)**

**Education:** The average level of total early-stage entrepreneurial activity for graduates in the UK in 2011 was 9.4 per cent (Figure 9), significantly higher than for non-graduates (6.5 per cent). The comparable figure for graduates currently residing in Wales was 8.5 per cent and this is not statistically different from the UK level or from the TEA rate for non-graduates in Wales (7.9 per cent). Graduate TEA rates in Wales, Northern Ireland and Scotland seem closer to non-graduate TEA rates than in England – the difference between TEA rates of English graduates and non-graduates was close to significant.



**Figure 9: Total Early-Stage Entrepreneurial Activity in the UK Home Nations by Graduate Status, 2010.** (Source: GEM APS, 2011)

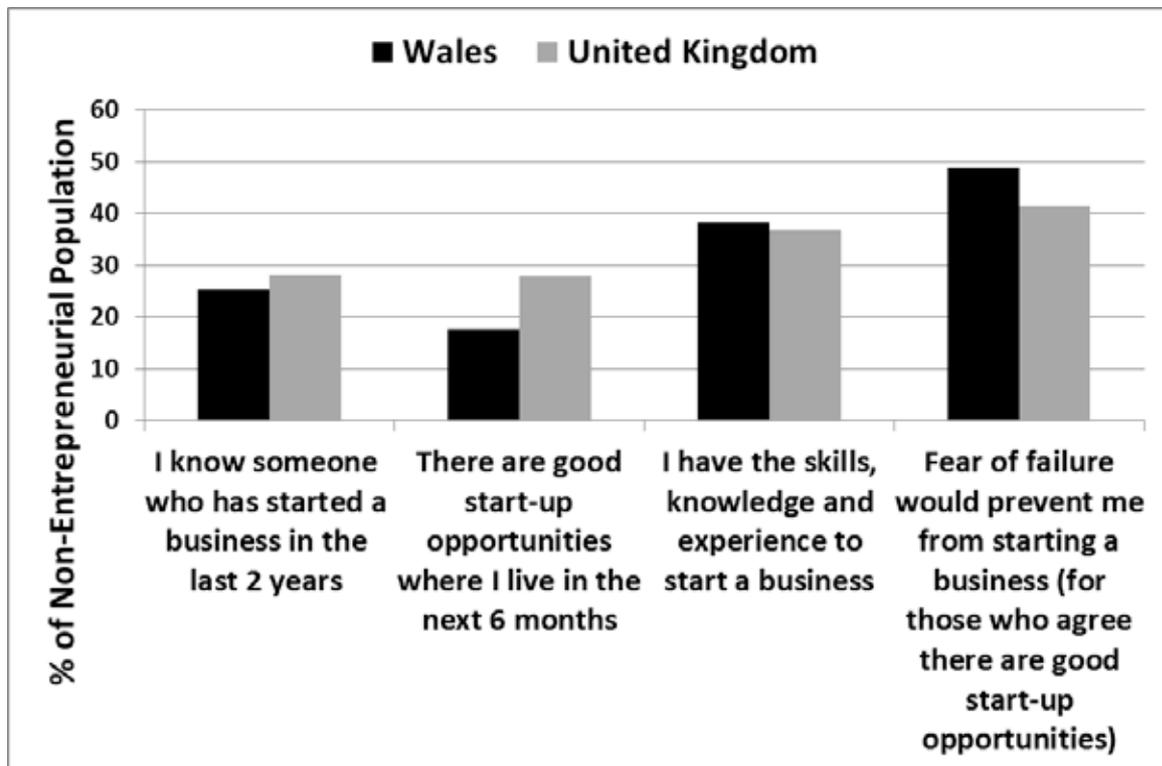
## Entrepreneurial Attitudes and Intentions

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). Here, as in the last two years, we report attitudinal data only for that portion of the population who are not already entrepreneurs.

In Wales, one in four (25.3 per cent) of individuals state that they know an entrepreneur compared to 28.2 per cent in the UK as a whole (Figure 10), the same as in 2010. In Wales

two-fifths (38.3 per cent) of non-entrepreneurs believe they have the skills to set up in business compared – again similar to the UK average at 36.7 per cent.



**Figure 10: Entrepreneurial Attitudes and Perceptions in Wales and the UK (2011).** (Source: GEM APS, 2011)

The proportion of the population reporting that the fear of failure would prevent them starting a business rose in 2011 from 41.4 per cent to 48.9 per cent, as it did in the UK, from 36.0 per cent to 41.4 per cent, although neither of these rises is statistically significant. Figure 11 shows that fear of failure has risen more sharply in Wales than in other home nations since the onset of the recession in 2007.

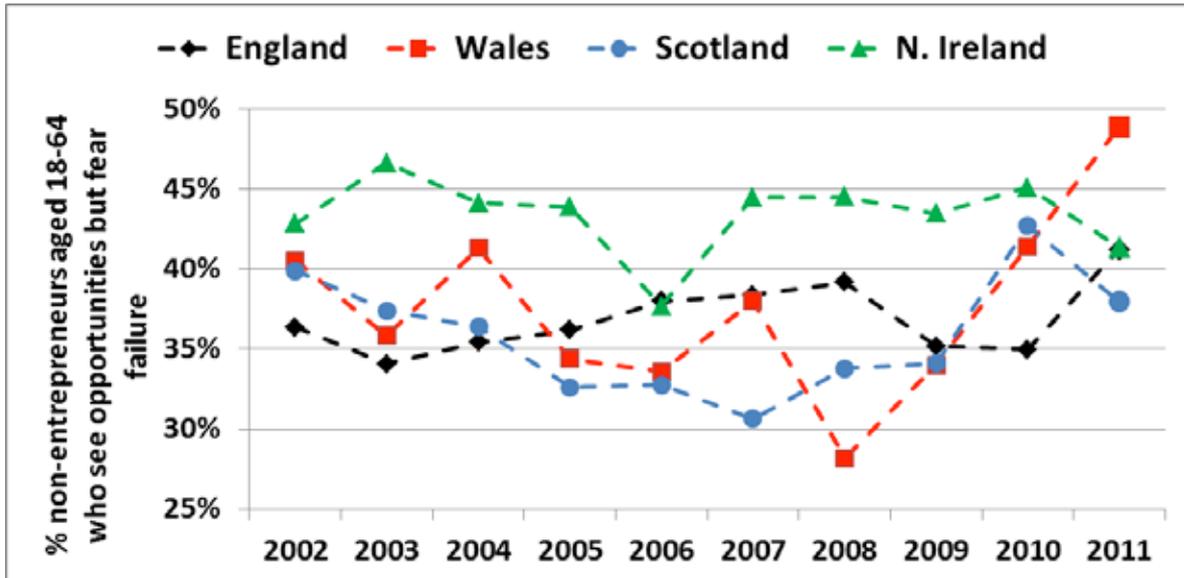


Figure 11: Fear of Failure among those who see Opportunities in the UK Home Nations, 2002-11. (Source: GEM APS)

In the 2011 survey, only 17.7 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 27.9 per cent of the UK non-entrepreneurial working age population. This is the lowest rate of perception of start-up opportunities in Wales since 2002, and a statistically significant decline on 2010. Opportunity perception rates did not decline significantly in the other home nations. The last year that opportunity perception declined at a faster rate in Wales than in the UK as a whole was in 2008, the first year of the recession.

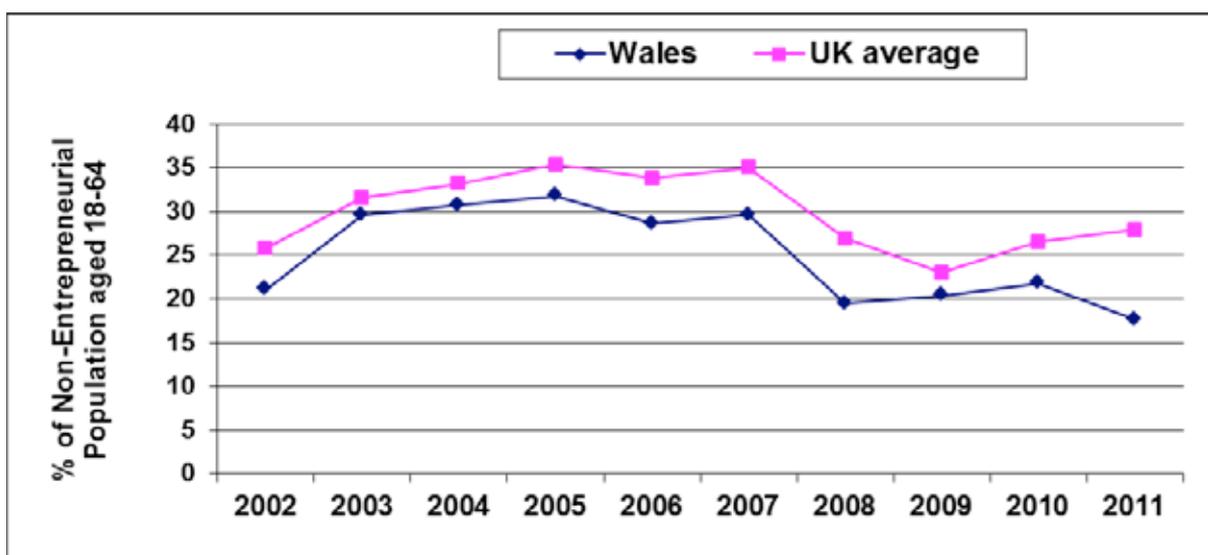
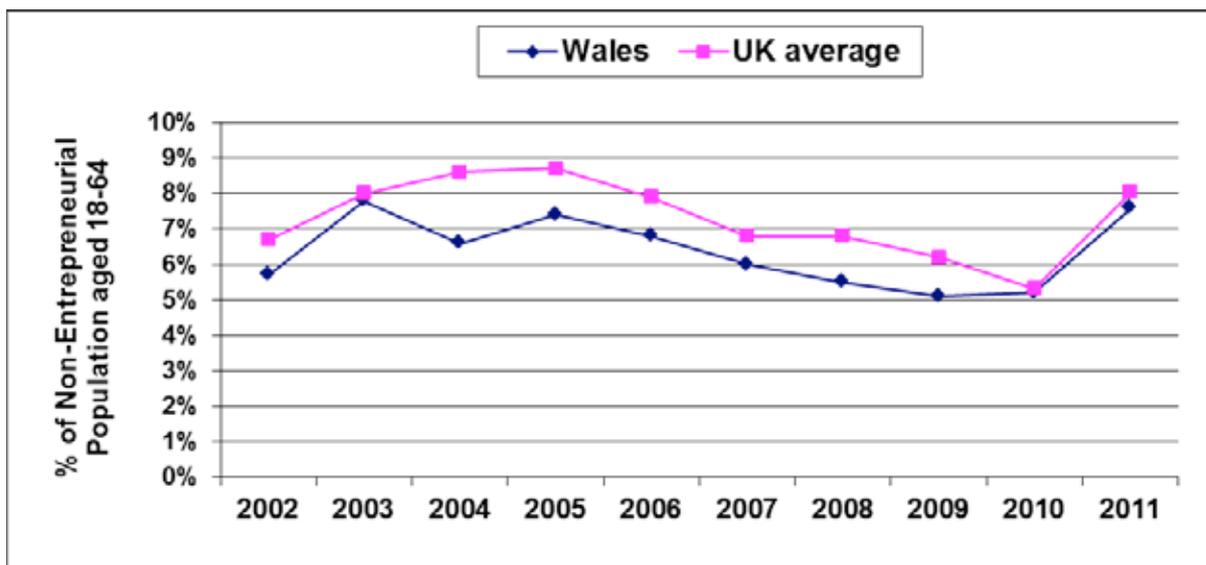


Figure 12: Perception of Start-up Opportunities in Wales and the UK, 2002-11. (Source: GEM APS)

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 rose significantly from 5.2 per cent in 2010 to 7.6 per cent in 2011 (Figure 13). This mirrored the UK trend which saw a rise from 5.3 per cent to 8.0 per cent. Both these increases in 2011 were significant, and they reverse the steady fall in future start-up intentions in Wales since 2005 – prior to the onset of the recent economic downturn. This runs counter to the trend in opportunity perception, which suggests it is more a reflection of the tightening of the labour market and the increase in necessity-based entrepreneurship.



**Figure 13: Future Start-up Expectations (within 3 years) in Wales and the UK, 2002-11.** (Source: GEM APS)

Men are more likely than women to report that they intend to start a business in the next three years in Wales (Figure 14). In 2011, 5.5 per cent of women in Wales expected to start a business in the next 3 years compared to 10.0 per cent of men. The ratio of female to male future start-up intentions in Wales was 55 per cent, up from 43 per cent in 2010 and close to that observed for the TEA rate in 2011 (51 per cent).

Start-up intentions rose significantly in Scotland in 2011 for males and females, but the increases in other home nations for males and females were not statistically significant. The rise among females in Scotland is particularly noteworthy and unusual; since 2002 it has never been higher than 3.7%.

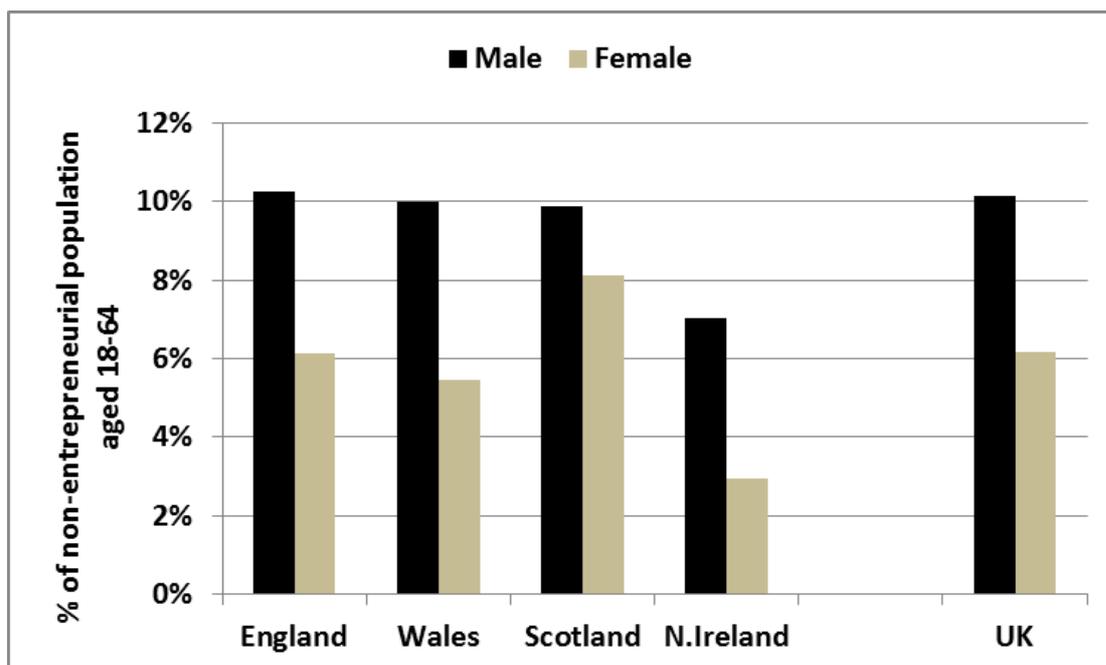


Figure 14: Future Start-up Expectations (within 3 years) in the UK Home Nations by Gender, 2011. (Source: GEM APS, 2011)

## Training, Awareness and Entrepreneurial Activity

In the 2008 GEM UK survey<sup>3</sup>, almost three out of five (58 per cent) of 18 to 29 year olds in Wales agreed they had received training in starting a business provided by a college or university that was not part of their formal education, compared with only 35 per cent in Scotland, 39 per cent in England and 29 per cent in Northern Ireland. There was no significant difference in the proportion who had received training in starting a business as part of formal post-school education across the home nations.

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 per cent) reported that they had, and this figure dropped to 39.7 per cent in 2011. While this difference may appear to be steep, it is not statistically significant, because of the small size of the sample of 18 to 30 year olds. At 50.8

<sup>3</sup> This was the last year the survey carried a full set of questions on enterprise education and training.

per cent, the estimate for Northern Ireland was significantly higher than that for Wales or England (41.6 per cent) but the same as Scotland (50.0 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 42.3 per cent answering yes in 2011, compared with 48.3 per cent who answered yes in 2010. A similar proportion in England answered yes (44.6 per cent) but significantly more people in Scotland (51.5 per cent) and Northern Ireland (51.6 per cent) answered yes than in Wales. In 2011, very similar proportions of people in the home nations had heard of Enterprise Week or Global Entrepreneurship Week: 23.6 per cent in Wales, 22.2 per cent in England and Scotland, and 21.9 per cent in Northern Ireland.

## **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. While GEM has developed a range of measures for this activity, we focus on the measure which is most analogous to early-stage entrepreneurial activity (TEA): Private Sector Entrepreneurial Employee Activity (PEEA), or the proportion of employees in private for-profit organisations who are currently engaged in leading new business activities for their employer. GEM distinguishes two phases of entrepreneurial employee activity: idea development for a new activity and preparation and implementation of a new activity.

The PEEA rate estimates for 2011 were: UK 2.3 per cent, England 2.4 per cent, Wales 1.5 per cent, Scotland 1.8 per cent and Northern Ireland 1.7 per cent. Figure 15 compares the TEA and PEEA rates for the four home nations and the UK in 2011. Note that the denominators of these two measures are different. There is no significant difference between the PEEA rates of home nations.

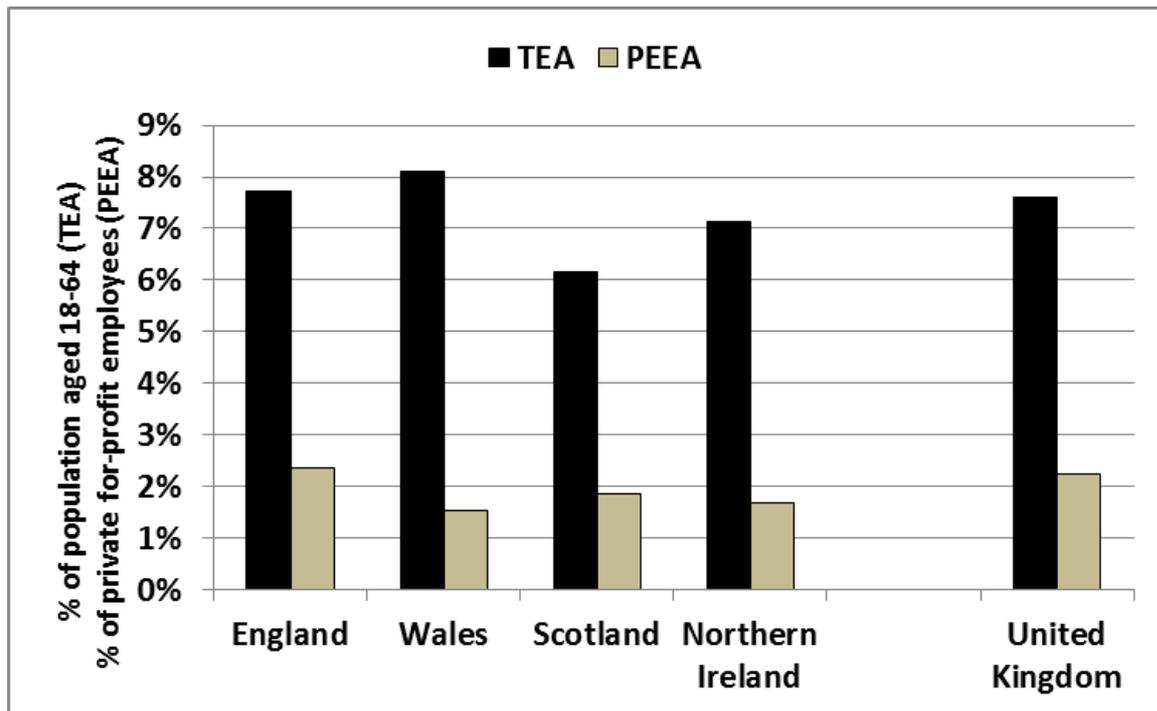


Figure 15: Total early-stage Entrepreneurial Activity and Private-sector Entrepreneurial Employee Activity in the UK Home Nations, 2011. (Source: GEM APS, 2011)

## Concluding Observations

For entrepreneurship in Wales, 2011 may seem a paradox: entrepreneurial activity and intention were rising, yet attitudes were becoming more negative among the non-entrepreneurially active population. This however needs to be put in the context of the economic cycle. At a late stage of a prolonged recession, we would be expecting some entrepreneurial individuals to be eyeing new opportunities for when the economy moves out of recession, while others fear for their jobs and expect they may have to start a business out of necessity, or indeed actively try to start a business before they lose their job. The remainder of the population sees continued recession as a threat rather than an opportunity.

In 2011, 74 per cent of TEA entrepreneurs in Wales were first-time entrepreneurs, while 85 per cent of non-entrepreneurially-active individuals who expected to start a business in the next three years were first-time entrepreneurs. Given the rise in intentions and activity, particularly among younger adults, and the tough economic conditions, the existence of training and signposting to resources for first time entrepreneurs is particularly important at this time.

## 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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