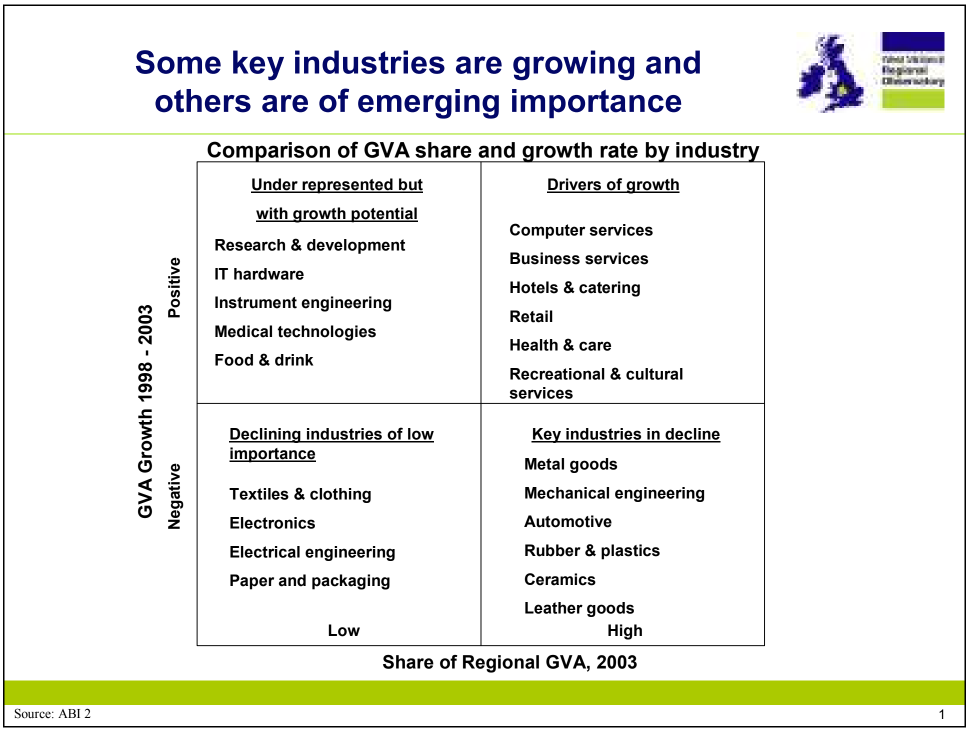
RSP Cross-Cutting Issues 2006: Graduates and the knowledge economy

Key Findings

7th September 2006

The changing demand for skills

There is potential for significant economic growth in the Region over the next few years as key service sectors and a range of high value manufacturing industries continue to expand. This would result in the generation of significant numbers of higher skilled jobs.



The knowledge economy – realising the potential for growth

This potential will only be realised, however, if businesses successfully develop high quality, internationally competitive products and services. While the adoption of new and innovative technology and production processes is clearly essential, investment in skills and talents of the workforce and the development of a 'knowledge economy' is also critical. Indeed the knowledge based economy results from the interaction of:

- Information and communication technologies – which are changing the face of many activities and occupations
- Human capital and intellectual property - use and production of knowledge intensive processes, products and services requires a skilled workforce. For knowledge based companies, talent and education become the most valuable assets, and the decisions they

make on the location of knowledge intensive activities are likely to be increasingly linked to the pool of highly qualified workers into which they can tap.

- Creation and innovation – knowledge (research, design etc.) becomes a tradable product itself or makes up a large share of the actual value of many products or services.

Limitations in the availability of robust and reliable data make measurement of the knowledge economy and knowledge intensity problematic, particularly at a regional level. As a result we have developed a 'proxy' measure of knowledge intensity based on:

The proportion of people in employment that have acquired higher level qualifications (i.e. at least NVQ level 4 or equivalent, which may include graduates with a degree, those with a higher degree or those who have gained an equivalent work based or vocational qualification)

It is recognised that this is not a specific measure of the demand for skills from employers. It is, however, a robust measure of the talent and educational attainment of the Region's workforce that can be analysed reliably at a regional level and, within the Region, by detailed sector and occupation[1].

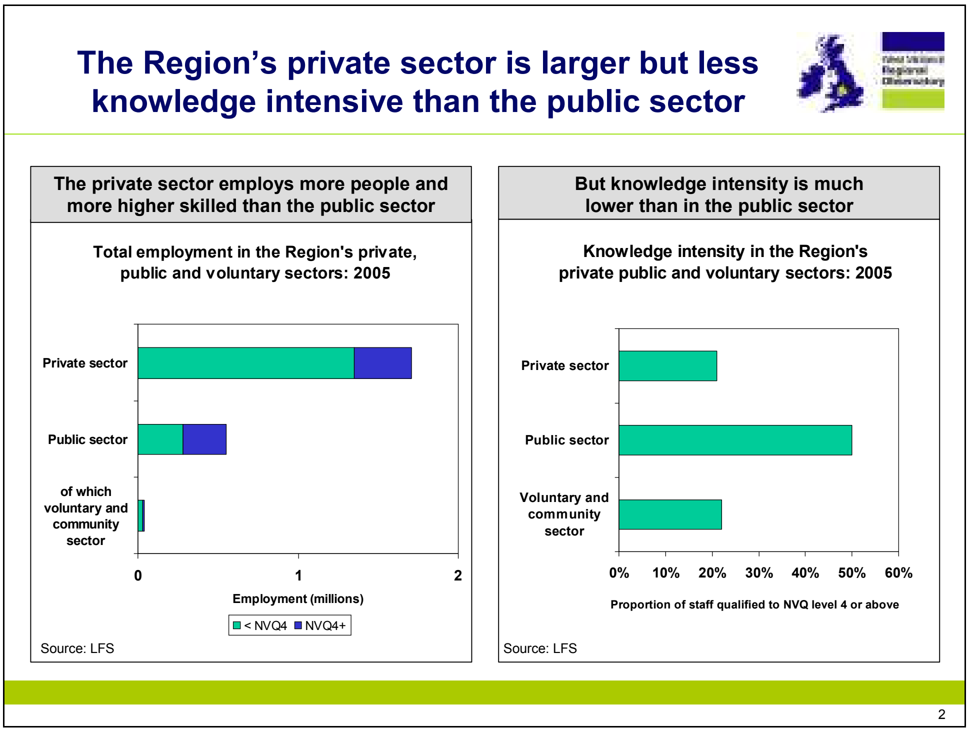
A weak private sector knowledge economy

On this measure of knowledge intensity the West Midlands performs poorly against other regions. In particular the Region's private sector, which is critical to drive up competitiveness and value-added, is much weaker than the public sector:

- The private sector employs more than 1.7 million people in the Region and has more than 360,000 people with higher level qualifications and is much larger in absolute terms than the public sector which employs just over 550,000 people of which 275,000 have higher level qualifications

- However while it should be noted that in a number of private sector industries skills and experience gained informally and 'on the job' can be sometimes be viewed as of more value than formal qualifications, based on our measure the Region's private sector, with 22% of staff with higher level qualifications, is much less knowledge intensive than the public sector where 50% of staff have higher level qualifications

[1] It should be noted, however, that (i) sectors and occupations that have seen the highest levels of recruitment in recent years will inevitably have a higher proportion of higher qualified graduate employment (ii) the situation is far from static as the take up and diffusion of new processes, products, services and technologies stimulates flows of skills and talent across sectors and occupations



- Within the Region's private sector computer services is the only industry of a significant size with more than 40% of the workforce with higher level qualifications.

- Business & professional services, which is one of the Region's most important private sector knowledge industries in employment terms, has only 34% of its workforce with higher level qualifications which compares with 44% nationally

Case study – business & professional services

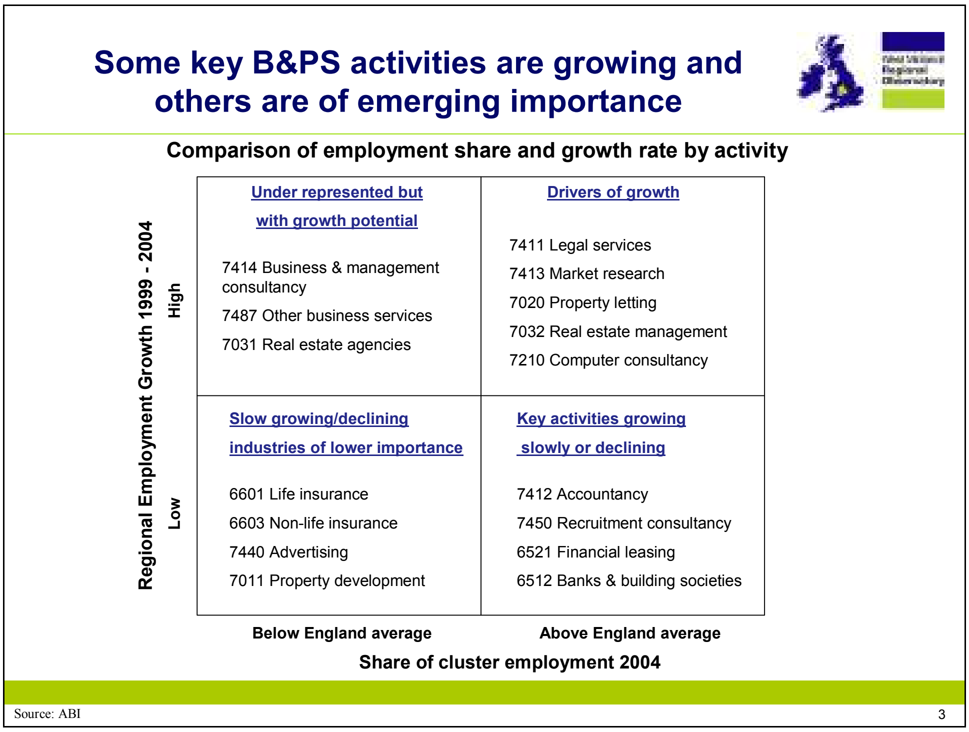
While the Region's business & professional services industry has grown strongly in recent years:

- Lower value added activity, notably labour recruitment and activities such as industrial cleaning, is more strongly represented than elsewhere in the country.

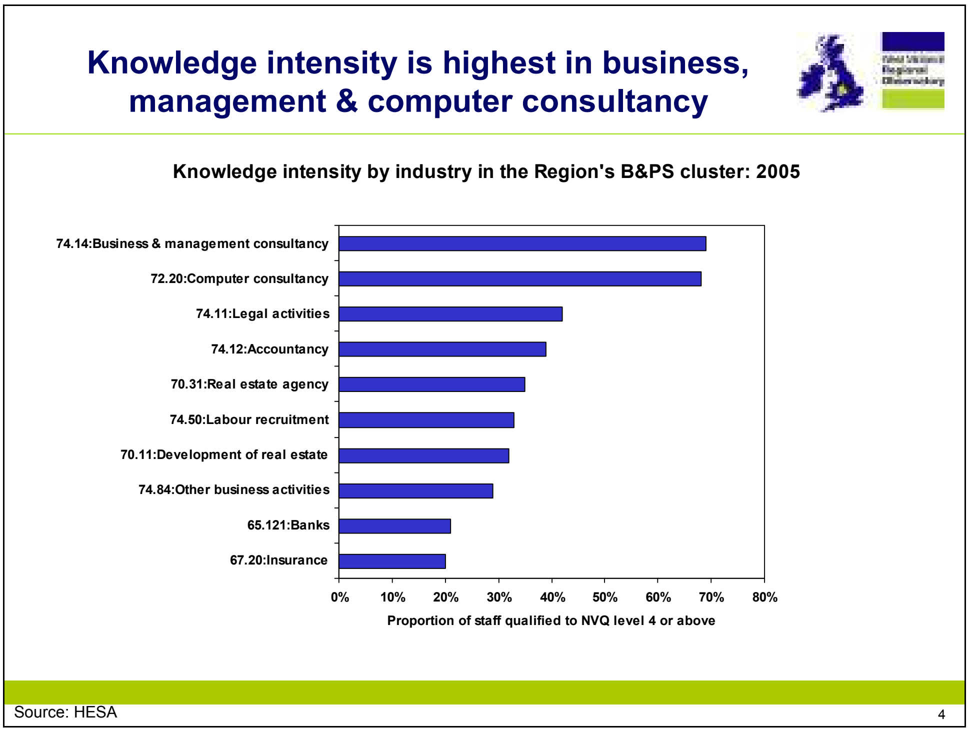
- People with higher level skills going into the industry in the Region are more likely to go into lower skilled, lower paid jobs

However more detailed analysis shows that knowledge intensity is increasing within the professional and business services 'cluster', which excludes these lower value added activities and also encompasses a range of higher value financial services activities. While the cluster is relatively under developed in employment terms and is a little less knowledge intensive than elsewhere in the country:

- A range of industries, notably legal services, market research, hardware consultancy, real estate management, property letting, business and management consultancy, estate agency and other business services are expanding their employment to become key drivers of growth.

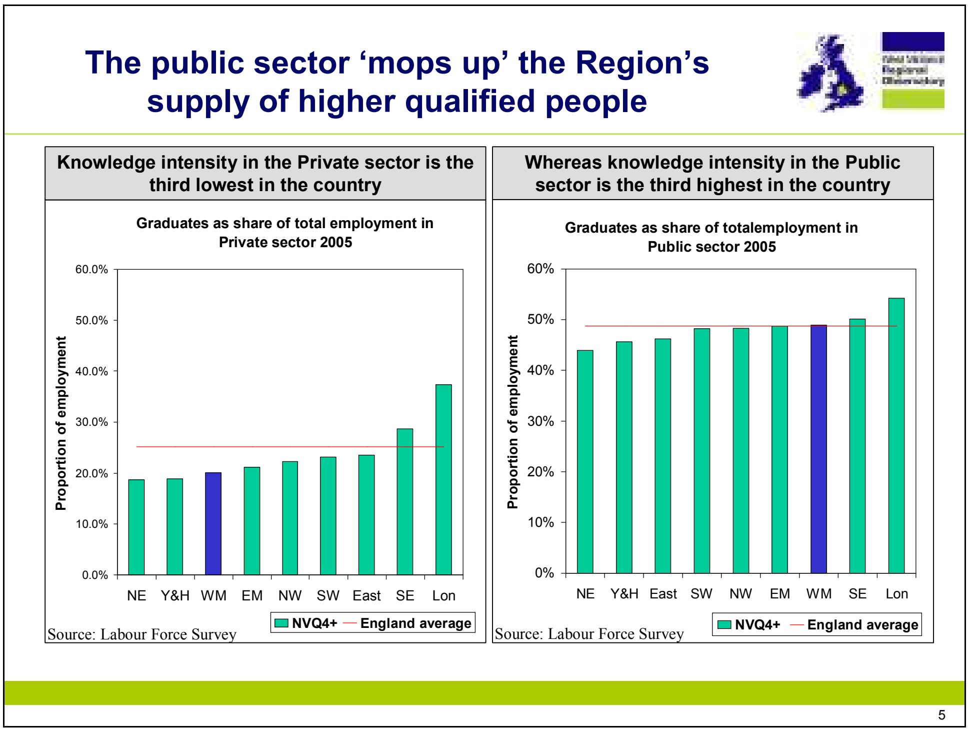


- A number of industries within the cluster are highly knowledge intensive with between 40% and 70% of staff qualified to at least NVQ level 4 or the vocational equivalent



The Region's public sector is 'mopping up' the supply of higher level skills

Overall, however, the Region's private sector is less knowledge intensive than the public sector. Knowledge intensity is above the national average in key industries such as education, health & care and public administration. Indeed the public sector appears to be 'mopping up' the supply of higher qualified people not being recruited by the Region's relatively under developed private sector knowledge economy.



It should be noted, however, that:

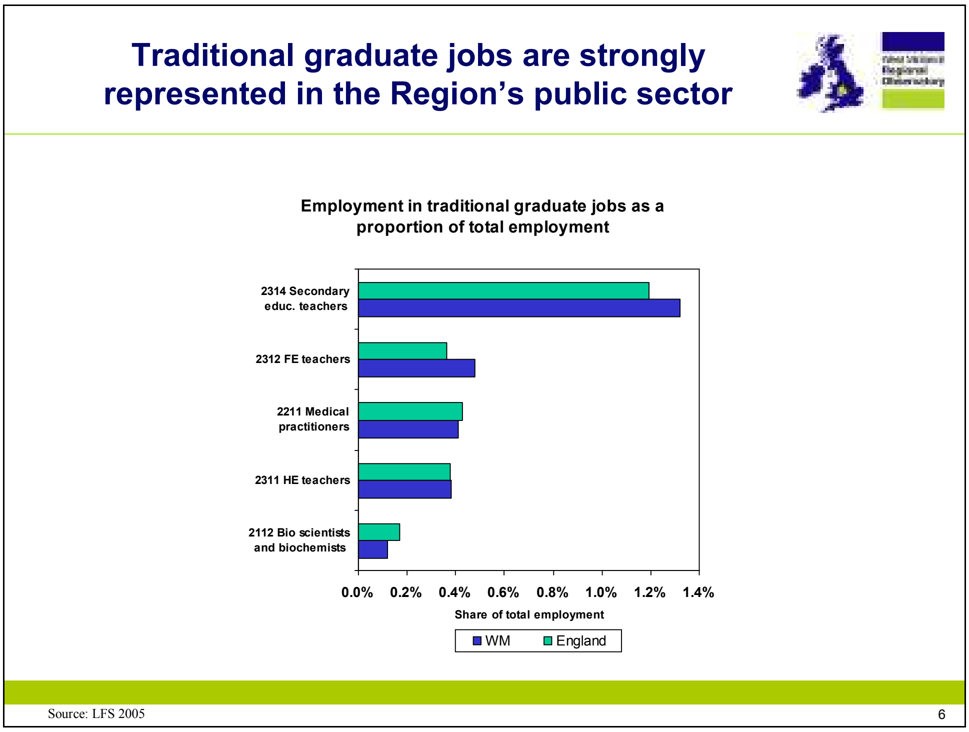
- Some private sector employers, particularly those that trade nationally and internationally and where the West Midlands has developed into a key 'hub' for particular activities, might be accessing knowledge workers from the rest of the UK or from overseas. Further research might be useful to explore:
    - The extent of national and international trading in the Region's key 'knowledge industries'
    - Whether the Region acts as a 'hub' for any knowledge based activities and the extent to which employers are tapping into external 'knowledge pools'
- Significant private sector activity may be 'hidden' within the public sector. For example within universities and the NHS there is significant privately funded research and development work and there is much public-private sector collaboration.

Issues with employers' utilisation of higher level skills

While the preceding analysis gives an indication of the demand for higher level skills and knowledge intensity, it is also important to consider:

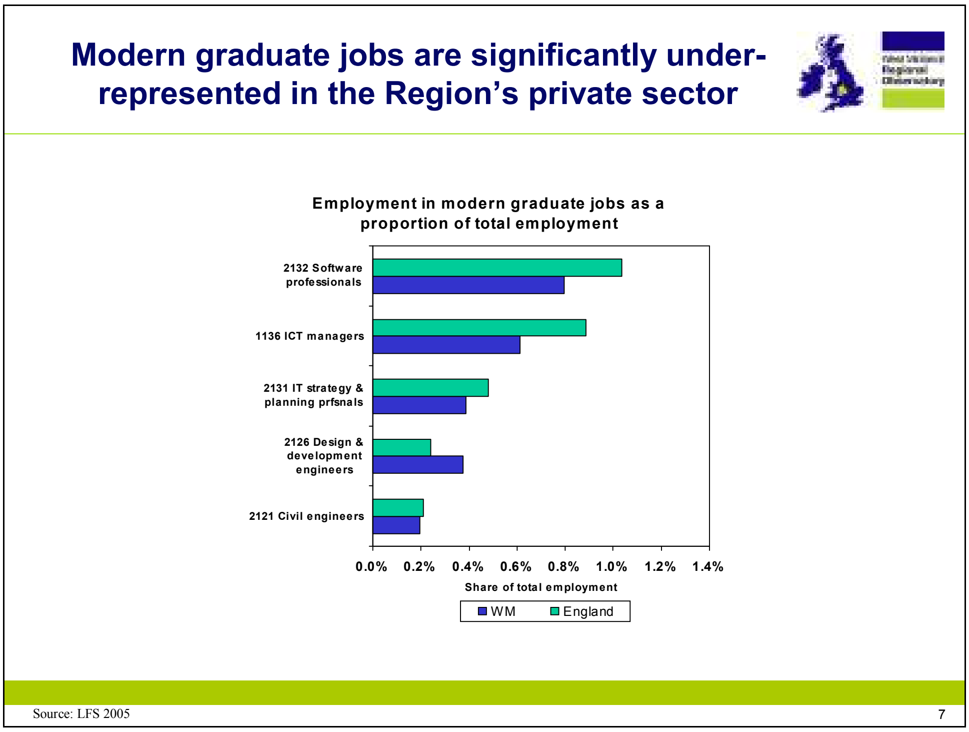
- The kind of work higher skilled staff do in their jobs
- The extent to which they use their skills and qualifications
- The areas in which changes in work organisation are creating new opportunities for those with higher level skills
- The extent to which higher level skills are being effectively developed and deployed by employers. An important precursor to this is the development of appropriate management and leadership skills. In particular managers and leaders need to have the ability to be open to new ideas, identify and exploit opportunities and to inspire, motivate and develop their people.

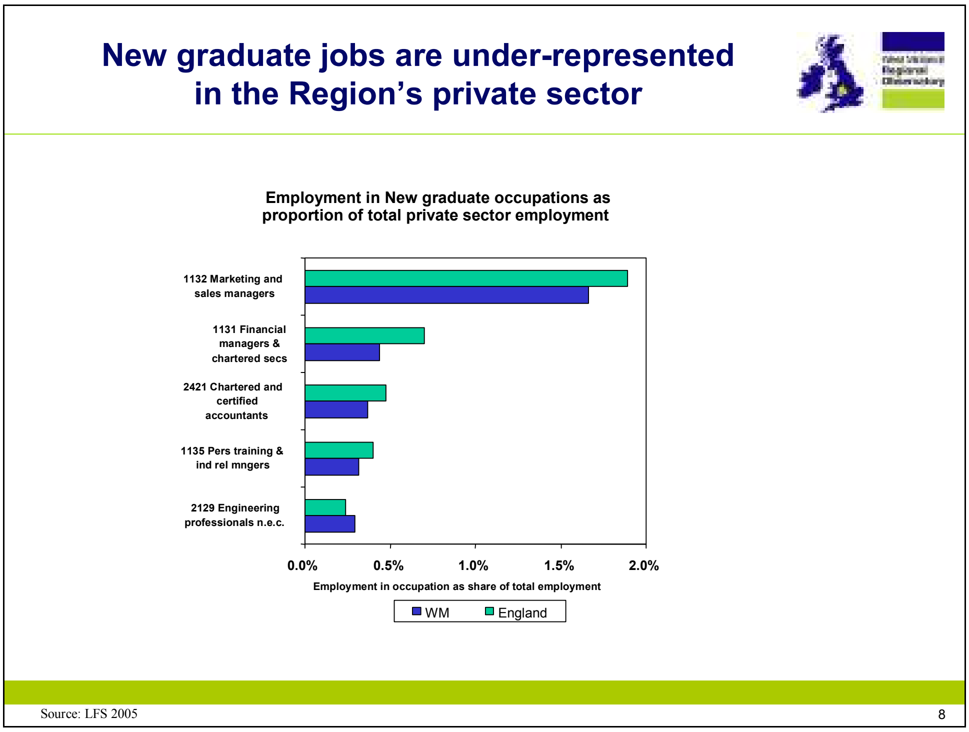
People working in 'traditional' graduate jobs, for which the route in is via a degree programme and the emphasis is on job-specific technical skills are strongly represented in the Region. While occupations in the private sector such as solicitors and scientists are included in this category the proportion of people in the West Midlands working in public sector occupations such as teaching and lecturing is much higher and above the national average.



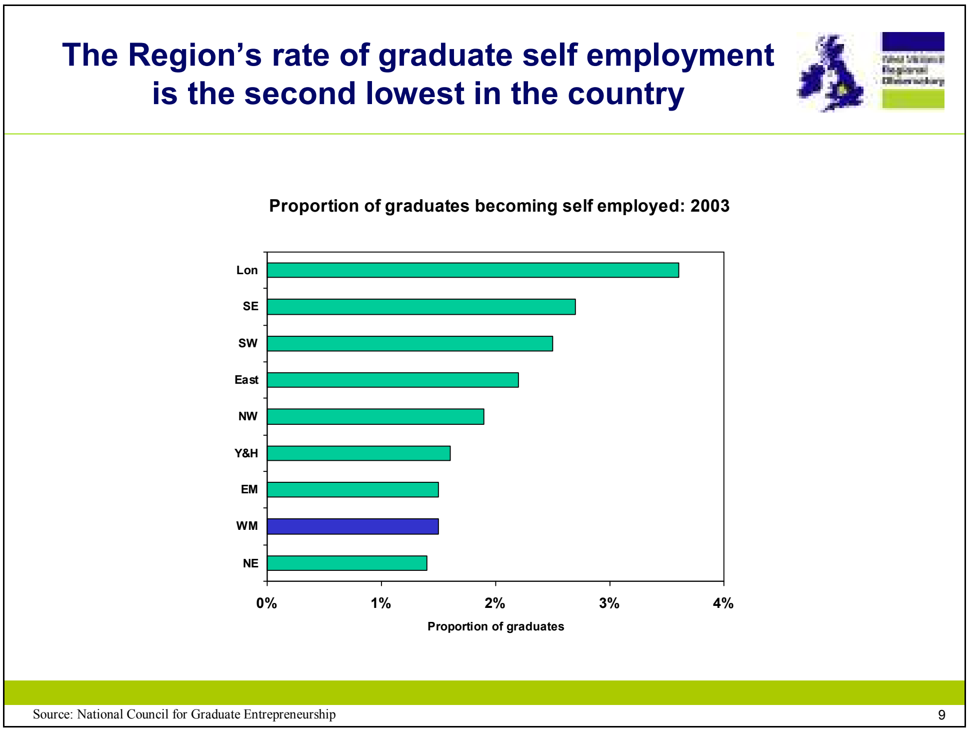
The proportion of people working in modern graduate jobs (for example IT professionals and managers) and new graduate jobs (for example managers and professionals in business & professional services), meanwhile, is much lower. This may indicate:

- Weaker demand for higher level skills from the Region's private sector employers
- A shortage of the specific higher level skills required by private sector employers – do people in the Region have the right mix of high level technical skills and 'softer' generic skills needed?
- An inability, particularly among smaller private sector firms, to compete with public sector salaries and other benefits. While at a national level average salaries in the public sector staff are still a little below the private sector, the gap is narrowing year on year and the average for the public sector grew by nearly 8% between 2004 and 2005 which compares with just 4% for the private sector.





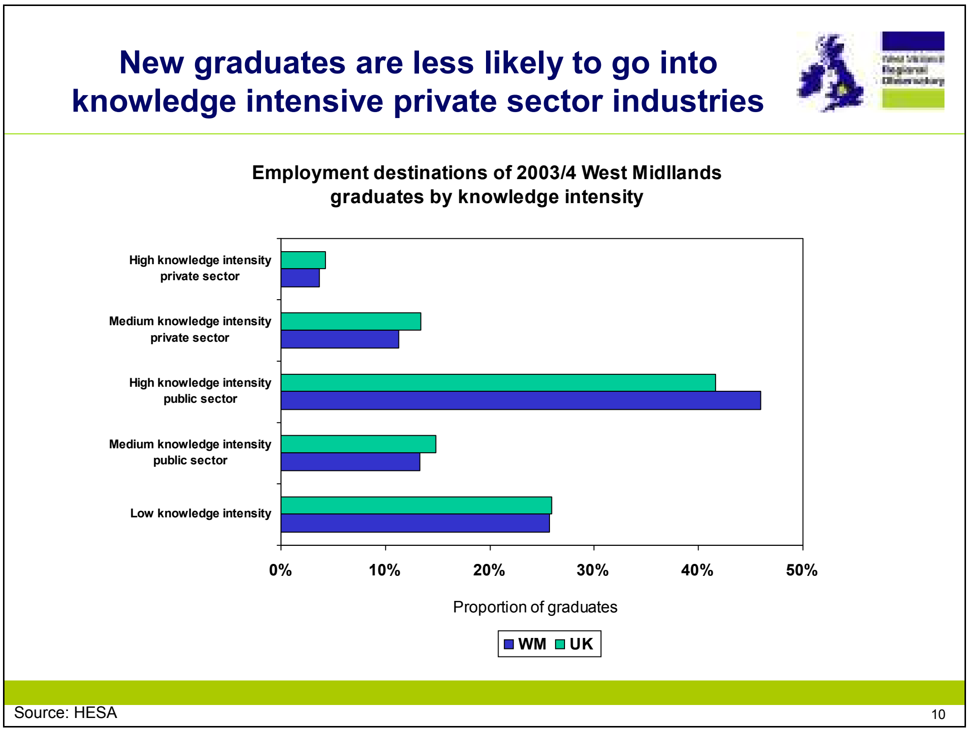
Research indicates a link between employment in these 'non-traditional' graduate occupations, the acquisition of 'soft' generic strategic, management and interactive skills and a propensity for entrepreneurship and enterprise. Given that private sector knowledge intensity and employment in some of these key occupations is below average it is perhaps unsurprising that the proportion of graduates from the West Midlands going into self employment is the second lowest in the country.



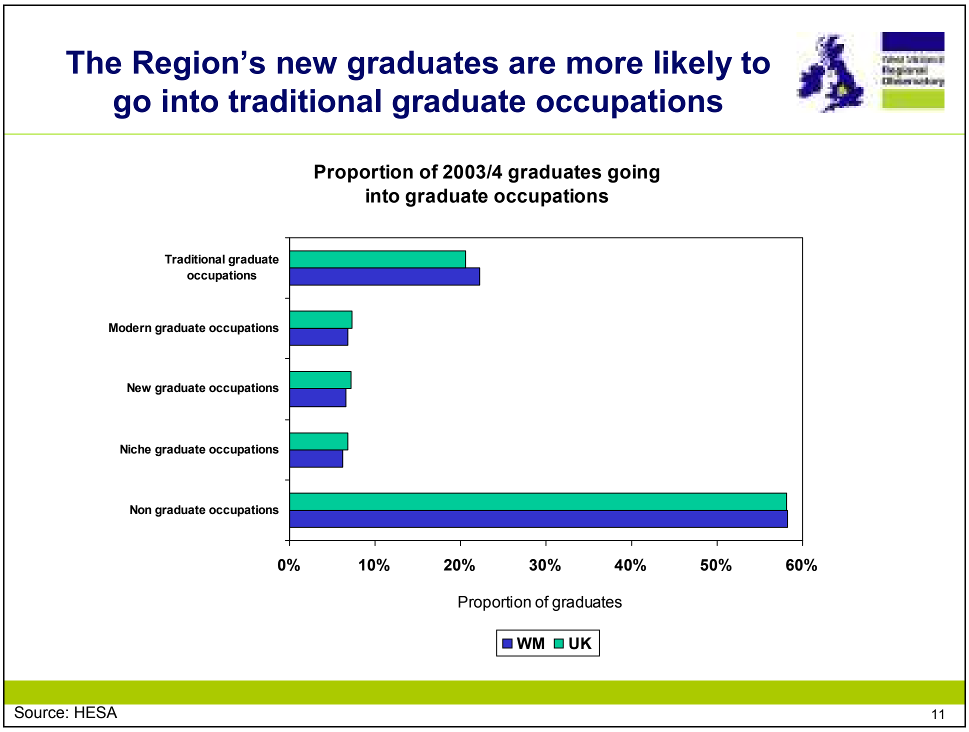
The utilisation of new graduates

While graduate retention within the Region is improving, it still remains below the national average and the Region continues to lag behind in terms of attracting graduates from other parts of the UK and overseas. In addition issues associated with the utilisation of new graduates within the workforce remain:

- The proportion of graduates going into the Region's high knowledge intensity private sector industries remains below the national average



- New graduates are still more likely to go into traditional graduate jobs, which are predominantly in the public sector, than new or modern graduate jobs which are predominantly in the private sector.



While graduates studying subjects allied to teaching, education, social work and medicine are most likely to go into high knowledge intensity public sector industries, business and technology graduates are most likely to go into high knowledge intensity private sector industries, notably those studying computer science, business studies, management studies, engineering or mathematics.