Liverpool is part of the Centre for Cities’ Partner City research programme. The programme works closely with a small group of cities to inform economic development strategies and improve economic performance.

A city’s stock of high skilled workers is one of the key determinants of its economic performance. This report focuses on high skilled workers in Liverpool. It answers two questions:

- How can Liverpool attract and retain more graduates?
- What more can partners in Liverpool do to ensure that its graduates meet the needs of priority business sectors?

### Recommendations

- Drop plans to introduce a graduate retention target and stay focused on increasing the share of the city region’s adult population educated to degree level

- Strengthen educational attainment in schools – particularly in maths and English - to improve the supply of local talent

- Use Liverpool’s Knowledge Economy Group to design and coordinate policies that help boost demand for high skilled workers across the city region

- Support the focus on employability skills at Liverpool universities by improving business awareness of existing programmes

- Redesign computer games courses to gain industry accreditation and strengthen practical skills training on science courses

### Table

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>24.5</td>
<td>37.6</td>
<td>13.1</td>
</tr>
<tr>
<td>Liverpool</td>
<td>13.8</td>
<td>23.4</td>
<td>9.6</td>
</tr>
<tr>
<td>Core Cities average</td>
<td>17.3</td>
<td>25.7</td>
<td>8.5</td>
</tr>
<tr>
<td>Great Britain</td>
<td>19.2</td>
<td>29.0</td>
<td>9.8</td>
</tr>
</tbody>
</table>
Executive Summary

The report argues that Liverpool should steer clear of introducing new targets and interventions aimed at attracting and retaining graduates. Cities have little direct influence over flows of graduates around the country because these are determined primarily by relative levels of demand for high skilled workers. Instead of focusing on graduate attraction and retention, partners – including local authorities, universities and other agencies - should concentrate on increasing the supply of home-grown talent and helping boost demand for high skilled workers among local businesses.

Liverpool is already narrowing the skills gap between itself and England’s other Core Cities. Between 1995 and 2008, the share of its adults qualified to degree level rose from 13.8 percent to 23.4 percent and the distance by which it lags the Core Cities average fell from 3.5 to 2.3 percentage points. By 2020 Liverpool should aim to have closed this gap altogether.

Partners should also be wary of trying to tailor university courses too closely to the specific needs of the business community. Our research suggests that, for the most part, businesses want graduates with strong core competencies and employability skills. These should remain top priorities for Liverpool’s universities, and the focus on employability skills should continue to be increased.

Good work is already going on in this area, particularly in the shape of Liverpool John Moores University’s World of Work programme. Local government partners should support efforts like this by helping to improve awareness and engagement from the business community.
Introduction

Human capital now stands firmly at the centre of debates about economic development in cities.1 High skilled workers in particular are an increasingly important asset for cities trying to nurture growth in the modern economy.2

The problem for many of the UK’s regional cities is that these types of workers are in short supply, tend to be highly mobile and are often attracted by the higher wages and better career opportunities on offer in London.3 This has fuelled concerns that regional cities suffer from a brain drain that restricts their economic performance. As a result, a number of big regional cities, such as Sheffield, Nottingham and Manchester, have begun to introduce or think about policies aimed at attracting and retaining high skilled workers.

Liverpool is no exception, with the Multi Area Agreement (MAA) introducing plans to increase graduate retention across the city region from 45 percent to 50 percent by 2014.4 Part of Liverpool’s interest in increasing graduate retention is the city’s ongoing experience of dealing with a declining population. As a complement to the graduate retention target, they also want to ensure that the graduates coming out of Liverpool’s universities are meeting the needs of priority business sectors.

This report sheds light on these two policy issues. It discusses the economic context that Liverpool finds itself in; presents some basic facts about high skilled workers in Liverpool and other major cities; reviews academic research on the movement of skilled workers around the UK; analyses the location decisions of graduates from Liverpool’s universities; discusses the high skills needs of three of Liverpool’s priority business sectors; and highlights policy options for partners in the city.


The report uses the name Liverpool to refer to the Liverpool city region. Unless stated otherwise all statistics refer to the Liverpool city regional area. This includes Liverpool, Sefton, Wirral, St.Helens, Knowsley and Halton.
The Liverpool economy

Liverpool’s year as Capital of Culture in 2008 has underlined a renewed sense of confidence in its economic future. Regeneration has played a big part in this. The £1bn Liverpool One retail development opened in 2008 and the city’s commercial office offer has been greatly improved. Other investments include the Kings Waterfront (£150m), the Princes Dock (£200m) and the soon to be completed Liverpool Museum (£65m).

The city region’s employment rate also increased significantly in the 10 years leading up to the current recession. In 1997/98 it stood at 64 percent, but by 2007/08 it had risen to 67 percent - though this was still some way behind the 2007/08 UK average of 75 percent. Both have now declined, with figures for the three months to June 2009 showing that the national employment rate has fallen to 72.5 percent, its lowest level since 1997.

Progress has undoubtedly been made in recent years, but major challenges remain. The recession has been the worst economic shock since World War II. Real Gross Domestic Product has fallen by almost six percent over the course of the recession so far and output has yet to stabilise. Economists are predicting that unemployment – particularly among young people - will continue to rise over the next year. Liverpool has seen its Jobseekers Allowance (JSA) claimant count rise from four percent to 6.4 percent between February 2008 and August 2009. This is an increase of more than 21,100 people and means that a total of 57,800 residents are now claiming JSA across the city region.

Getting economic growth back on track looks set to be a major challenge. While total UK employment grew by 10.1 percent between 1998 and 2008, forecasts suggest that it will grow by just 1.8 percent between 2008 and 2018. This includes an expected fall of 4.5 percent between 2008 and 2011 followed by a seven percent rise between 2011 and 2018. Like other cities around the UK, Liverpool’s performance will very likely be constrained by this wider malaise. For example, forecasts suggest that the Liverpool City Council area will not get back to its 2008 employment levels until 2015. A similar recovery time is expected for most of the other Core Cities, including Manchester, Leeds and Bristol.
High skilled workers & recent graduates in Liverpool & the UK

This section analyses data on degree qualified workers and graduate retention in Liverpool, the Core Cities and London. It shows that Liverpool has performed well on increasing the share of graduates in its working age population and argues that policy makers should stay focused on further increasing this figure rather than targeting an increase in the graduate retention rate.

There is an important difference between these two approaches, which is reflected in the fact that there is no clear relationship between a city's graduate retention rate and the share of high skilled workers that are found in its working age population. The lack of a link between these two variables means that city leaders need to look beyond graduate retention targets and initiatives if they want to increase their city's share of degree qualified workers. Improving educational attainment and helping stimulate demand for high skilled workers – through innovation, enterprise and inward investment policies – are the two key strategies that should be employed.

The share of graduates in Liverpool's working age population

Liverpool’s share of high skilled workers has historically been significantly lower than most of England’s other Core Cities (see Figure 1). However, like the other Core Cities it has recently experienced an increase in the share of its working age population educated to NVQ4 or above. NVQ4 is the equivalent of a degree level qualification and is a good, though by no means perfect, proxy for measuring the level of high skills in a city’s workforce.

The share of the working age population educated to NVQ4 and above rose from 13.8 percent to 23.4 percent between 1995 and 2008 (see Figure 1). The rise is mainly due to the large nationwide increase in students entering higher education in Great Britain over the past decade rather than it being due to a Liverpool specific phenomenon.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>24.5</td>
<td>37.6</td>
<td>13.1</td>
</tr>
<tr>
<td><strong>Liverpool</strong></td>
<td><strong>13.8</strong></td>
<td><strong>23.4</strong></td>
<td><strong>9.6</strong></td>
</tr>
<tr>
<td>Bristol</td>
<td>22.6</td>
<td>31.9</td>
<td>9.3</td>
</tr>
<tr>
<td>Sheffield</td>
<td>15.4</td>
<td>24.6</td>
<td>9.2</td>
</tr>
<tr>
<td>Tyne &amp; Wear</td>
<td>15.4</td>
<td>24.1</td>
<td>8.7</td>
</tr>
<tr>
<td>Nottingham</td>
<td>19.7</td>
<td>28.3</td>
<td>8.6</td>
</tr>
<tr>
<td>Leeds</td>
<td>17.7</td>
<td>26.1</td>
<td>8.4</td>
</tr>
<tr>
<td>Manchester</td>
<td>17.9</td>
<td>25.1</td>
<td>7.2</td>
</tr>
<tr>
<td>Birmingham</td>
<td>15.5</td>
<td>22.4</td>
<td>6.9</td>
</tr>
<tr>
<td>Core Cities average</td>
<td>17.3</td>
<td>25.7</td>
<td>8.5</td>
</tr>
<tr>
<td>Great Britain</td>
<td>19.2</td>
<td>29.0</td>
<td>9.8</td>
</tr>
</tbody>
</table>

Figure 1: Share of graduates in working age population for London and Core Cities (1995-2008)

Importantly, Liverpool has also begun to narrow the gap between itself and the other Core Cities. It witnessed the largest percentage point rise in the share of high skilled workers educated to degree level of all the Core Cities and now lags the Core Cities average by 2.3 percentage points compared to 3.5 percentage points in 1995. This clearly represents good progress, but Liverpool is coming from a low base and still ranks seventh out of the eight Core Cities so the improvement should be kept in perspective.

The overall split of degree qualified workers around the country

The share of Liverpool’s working age population educated to degree level has increased significantly, but its share of Great Britain’s total graduate population has hardly changed at all. The same is true for England’s other Core Cities (see Figure 2).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>20.0%</td>
<td>21.9%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Liverpool</td>
<td>1.9%</td>
<td>2.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Sheffield</td>
<td>1.8%</td>
<td>1.9%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Bristol</td>
<td>2.0%</td>
<td>2.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Nottingham</td>
<td>1.3%</td>
<td>1.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Leeds</td>
<td>4.5%</td>
<td>4.5%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Tyne &amp; Wear</td>
<td>1.6%</td>
<td>1.5%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Birmingham</td>
<td>3.7%</td>
<td>3.3%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Manchester</td>
<td>4.2%</td>
<td>3.8%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Core Cities average</td>
<td>2.6%</td>
<td>2.5%</td>
<td>-0.1%</td>
</tr>
</tbody>
</table>

The only major city to have experienced a significant increase in its share of Great Britain’s total graduate population between 1995 and 2008 was London. This probably reflects London’s strong economic performance over the period, with Gross Value Added per head rising by 51 percent between 1995 and 2007 compared to a national average of 44.9 percent.11

The small changes in the share of total graduates in each of the Core Cities suggest that, with the exception of London, the pattern of demand for high skilled workers has remained relatively stable around the country and/or that the pattern of relative demand only changes slowly over time.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Total HE students</th>
<th>Postgrads</th>
<th>Undergrads</th>
<th>Total HE qualifications obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liverpool John Moores University</td>
<td>24,445</td>
<td>4,465</td>
<td>19,980</td>
<td>9,030</td>
</tr>
<tr>
<td>University of Liverpool</td>
<td>19,380</td>
<td>2,970</td>
<td>16,410</td>
<td>5,210</td>
</tr>
<tr>
<td>Liverpool Hope University</td>
<td>7,060</td>
<td>1,395</td>
<td>5,665</td>
<td>2,670</td>
</tr>
<tr>
<td>Liverpool Institute for Performing Arts</td>
<td>885</td>
<td>65</td>
<td>820</td>
<td>455</td>
</tr>
<tr>
<td>Liverpool</td>
<td>51,770</td>
<td>8,895</td>
<td>42,875</td>
<td>17,365</td>
</tr>
</tbody>
</table>


Liverpool’s graduate retention rate

Liverpool had 51,800 students registered in four higher education institutions (HEIs) for the 2007/08 academic year (see Figure 3). Liverpool John Moores University (LJMU) is the largest. The University of Liverpool is smaller in terms of its total number of students and is more research intensive. Combined, Liverpool’s universities produce more than 17,000 graduates per year.

Rates of graduate retention in Liverpool – meaning the share of graduates that are still in the city region six months after graduation – are above the Core Cities average, and second only to Manchester. In 2006/07, the Liverpool area retained 43.2 percent of its first degree graduates and 45.1 percent of all higher education leavers, including postgraduates and other undergraduates (Figure 4). The average figures for the Core Cities were 39.4 percent and 41.4 percent respectively.

Graduate retention and a city’s share of degree qualified workers

Having a high graduate retention rate is no bad thing, but it should not be seen as an end in itself, particularly given the narrow time frame to which the measure refers. City leaders should pay more attention to the share of degree qualified workers in their working age population. This captures the movement of experienced professionals as well as their younger counterparts and is a much better indicator of a city’s stock of skilled workers.
As Liverpool’s example shows, a high graduate retention rate does not necessarily correspond with a city having a high share of degree qualified workers in its adult population. In fact, among England’s Core Cities there is no clear relationship between these two variables (see Figure 5).

For example, Bristol has a relatively low retention rate (34.6 percent), but the highest share of degree qualified workers of all the Core Cities (31.9 percent). Meanwhile, Manchester has the highest retention rate (57.5 percent), but a lower share of degree qualified (workers 25.1 percent) than the Core Cities average (25.7 percent).

The downward sloping trend line on Figure 5 actually seems to suggest a negative relationship between a city’s graduate retention rate and the share of graduates in its working age population, but this is probably misleading. The \( r^2 \) figure of 0.26 noted below the chart measures the strength of the link between the two variables and suggests that there is very little relationship between them.

The lack of a clear relationship between a city’s graduate retention rate and the overall share of degree qualified workers strongly suggests that policy makers need to look beyond graduate retention when trying to increase the share of skilled workers in their areas. As discussed in more detail below, this means focusing on issues like labour demand and educational attainment more than graduate retention or attraction initiatives.

**Policy makers need to look beyond graduate retention when trying to increase the share of skilled workers in their area**

**Figure 5:**
Relationship between graduate retention and share of working age population educated to NVQ4+ in England’s Core Cities (2006/07)


\[ r^2 = 0.26 \]
Lessons

- **Liverpool has significantly increased the share of high skilled workers in its working age population over recent years.** This figure has increased from 13.8 percent in 1995 to 23.4 percent in 2008 as student numbers have expanded across the UK.

- **Liverpool has narrowed the gap with England’s other Core Cities.** But it still lags the Core Cities average by 2.3 percentage points and could therefore improve further.

- **Its share of Great Britain’s overall number of graduate workers has only increased slightly since 1995.** This suggests that demand for high skilled workers in the city has remained relatively stable compared to other cities around the country.

- **The city region’s graduate retention rate currently stands at 45.1 percent.** This puts Liverpool second out of the eight Core Cities on graduate retention.

- **But introducing a graduate retention target would be a mistake. The focus should be on high skilled workers not graduate retention.** Among England’s Core Cities, there is no clear link between graduate retention rates and the share of NVQ4+ qualified workers in a city’s working age population.
High skilled workers in the UK labour market

Increasing interest in the role played by high skilled workers in economic growth has led to a significant expansion in research on their movements and preferences.\textsuperscript{12}

**Demand influences the movements of recent graduates**

The UK’s recent graduates are highly mobile, but a city’s relative level of demand for these kinds of workers is the key determinant of whether it will experience a net in or out flow of them over time.\textsuperscript{13} Regional data shows that six months after completing their studies 28 percent of them are working in a region outside the one they lived in prior to starting university. Meanwhile, research analysing data at the finer grained, travel to work area level shows that 80 percent of recent graduates get their first job in an area outside the one they lived in prior to going to university.\textsuperscript{14}

London dominates in this market for recent graduates, retaining the highest share of any UK region and attracting the largest share of recent graduates that move to a new region after completing their studies. The reason for this is straightforward: London has a greater strength and diversity of demand for new graduates than most other cities in the UK. It offers them higher wages, as well as a greater range of employment and career development opportunities (see Figure 6).

Of course, London is not the only city that attracts recent graduates. Again, however, relative levels of demand are the key factor determining flows, with research showing that areas experiencing higher levels of economic growth attract increased numbers of recent graduates.\textsuperscript{15}

**Place matters, but it is often exaggerated**

Commentators often highlight place factors as a key influence in the location decisions of graduates,\textsuperscript{16} but policy makers should be careful not to exaggerate their importance.\textsuperscript{17} Surveys of recent graduates in Brighton and the East Midlands, found that the geographical location of an employment opportunity was ranked as the fifth most important factor behind considerations like financial return, the nature of the work, the opportunities for development and the reputation of the company.

Equally, attempting to use place to create an oversupply of high skilled workers in an area without the demand for them is also unlikely to be desirable. Instead of boosting a city’s economy it could simply lead to graduates occupying lower skilled jobs that underutilise their skills and limit opportunities for lower skilled workers that might otherwise be taking up those positions.\textsuperscript{18} Places like Brighton and Norwich are often cited as examples of this.

\textsuperscript{13} McCormick B (1997) Regional Unemployment and Labour Mobility in the UK European Economic Review 41; Faggian A & McCann P (2009) Universities, agglomerations and graduate human capital mobility Tijdschrift voor Economische en Sociale Geografie 100 (2)
\textsuperscript{14} Faggian A & McCann P (2009) Universities, agglomerations and graduate human capital mobility Tijdschrift voor Economische en Sociale Geografie 100 (2)
\textsuperscript{15} Ibid.
\textsuperscript{17} Nathan M (2005) The Wrong Stuff: creative class theory, diversity and city performance London: Centre for Cities
\textsuperscript{18} Hepworth M & Spencer G (2003) A Regional Perspective on the Knowledge Economy in Great Britain London: DTI
Experienced professionals’ preferences vary, but are influenced by jobs

The movements and preferences of experienced professionals vary from those of recent graduates. Experienced professionals are less mobile than their younger counterparts. However, when they move longer distances it is more likely to be job related and it is often away from London or out of a city centre. The tendency for young workers to move to London during the early years of their careers before moving out of the Capital later in life is a well known trend referred to by academics as the ‘escalator model’.

- Most moves are not job related. Housing choices normally play a much more significant role in the case of inter regional moves, however, job related considerations provide the main reason for moving.
- Older workers (aged between 25-49) are less mobile than the youngest group (16-24), but a higher share of their interregional moves are job related.
- More highly educated people and those working in managerial, professional and semi professional jobs are significantly more likely to move between regions than other types of workers.
- High skilled workers who have moved before are more likely to move again and they are more likely to move back to an area they have links with.

Quality of place also matters for experienced workers. As with recent graduates, though, its importance should not be overstated. This is backed up by the survey evidence set out in Figure 7, which highlights ‘area’ as a concern, but never a primary consideration in all types of migration analysed.

The quality of schooling in an area is also often identified as an important issue for workers with young families. Evidence from our business roundtable discussions suggests that the quality of schools in Liverpool has acted as a barrier for firms trying to attract skilled workers. This further underlines the need to sustain the Liverpool city region’s recent progress on increasing educational attainment.
Progress on demand side policies and educational attainment

Partners in Liverpool are making progress in demand side policies as well as on educational attainment and these two challenges should remain top priorities for the city’s economic growth. On the demand side, the high-level Knowledge Economy Group, established in 2008, led by key university, health, council and regeneration personnel should help to align and develop the city region’s efforts. Partners should task this group with reviewing and providing strategic direction on policies that can influence demand.

As most cities are unlikely to be able to capture skilled workers, they should instead focus on improving overall levels of talent in the local workforce. Recent achievements on GCSE results have been impressive. In the Liverpool City Council area, the number of young people obtaining five or more GCSEs at A*-C increased above the national average for the first time in 2008. Results for 2009 showed that this progress continued, with 73.7 percent of pupils obtaining five or more A*-C GCSEs compared to a national average of 65.3 percent (see Figure 8).
The big challenge for Liverpool City Council now is to improve GCSE attainment in English and maths, which is still below the national average. In 2009, 45.6 percent of young people in Liverpool got five or more GCSEs including English and maths. No national figure is yet available but Liverpool’s 2009 figure is still below the national figure for 2008 of 47.6 percent (see Figure 9). Linked to this, consideration should also be given to the attainment levels in the other Science, Technology, Engineering and Mathematics (STEM) subjects.

Lessons

- **The migration decisions of high skilled workers depend primarily on the relative economic attractiveness of areas.** Decision makers need to concentrate on helping build demand rather than trying to attract workers for jobs that do not yet exist.

- **Place matters, though its importance should not be overstated.** Liverpool needs to complete the regeneration of its city centre and build on the success of its year as Capital of Culture in 2008.

- **Sustainable growth is about building up (not circulating) talent.** Efforts to increase educational attainment and improve workforce development should take priority over attempts to attract skilled workers. Improving schools will also help make Liverpool more attractive for skilled workers with young families.
Graduate retention in Liverpool

This section looks at patterns of graduate retention in Liverpool compared with the other Core Cities. It finds that Manchester is the second most likely destination for Liverpool graduates and that retention rates are strongly influenced by factors related to relative labour demand, such as city size and workplace wage.26

Graduate retention and employment opportunities

As described above, data for 2005/06 shows that Liverpool retains 45.1 percent of all higher education leavers compared to a Core Cities average of 41.4 percent (see Figure 4). Of the Core Cities only Manchester outperforms Liverpool in terms of retained graduates.

This is probably due in some part to the size of Manchester in relation to Liverpool. Larger cities tend to have higher graduate retention rates, which is probably linked to the greater opportunities to work that exist in these locations (see Figure 10). It is important to note here that a range of other factors, including the specific types of industries and jobs located in a city as well as the attractiveness of a city for recent graduates, are very likely also playing some role in determining retention rates.

26. The analysis is based on the Higher Education Statistic Authority’s (HESA) Destination of Leavers from Higher Education (DLHE) survey. This survey records graduates’ activity and location six months after graduation. While this snapshot does not capture the complete movements of graduates, it does provide an indication of their initial reaction to labour market forces. The geographies used are city-regional approximations which are not completely congruent with the official city region definitions.

![Figure 10: Graduate retention and city size (2006/07)](source: HESA, DLHE 2009; Nomis, Mid-year population estimates, 2009)

Graduates living in Liverpool prior to starting their studies

Graduates that lived in a city before attending university (known as domiciled graduates) are far more likely to remain in that city following graduation than those that move to the city to study. In Liverpool, previously domiciled higher education leavers are three times more likely to stay in the city than those graduates that moved to Liverpool to study (see Figure 11). This ratio is fairly consistent across the Core Cities, varying between 2.3 and 3.8.
That previously domiciled students are more likely to be retained than students that move to a city to study, illustrates the importance of social and family networks. As well as personal ties, these networks offer financial support to recent graduates and are often an important source of employment opportunities. A higher proportion of domiciled students are also likely to attend the more locally focused universities in a city.

Retention rates vary between Liverpool universities

The retention rate for graduates of the University of Liverpool is lower than the retention rates for graduates of Liverpool John Moores University (LJMU) and Liverpool Hope Universities. The retention rate for graduates of the University of Liverpool was 36.9 percent in 2006/07, 12.6 percentage points less than retention rate at LJMU. This is due to the higher number of non-domiciled students attending the University of Liverpool and the higher overall mobility of students that have studied at more research intensive universities.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Domiciled in city-region</th>
<th>Not domiciled in the city-region</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham</td>
<td>79.4%</td>
<td>21.1%</td>
<td>3.8</td>
</tr>
<tr>
<td>Sheffield</td>
<td>77.3%</td>
<td>23.5%</td>
<td>3.3</td>
</tr>
<tr>
<td>Nottingham</td>
<td>72.3%</td>
<td>23.3%</td>
<td>3.1</td>
</tr>
<tr>
<td>Liverpool</td>
<td>76.1%</td>
<td>25.7%</td>
<td>3.0</td>
</tr>
<tr>
<td>Leeds</td>
<td>82.7%</td>
<td>28.1%</td>
<td>2.9</td>
</tr>
<tr>
<td>Newcastle</td>
<td>77.8%</td>
<td>28.2%</td>
<td>2.8</td>
</tr>
<tr>
<td>Manchester</td>
<td>83.9%</td>
<td>33.1%</td>
<td>2.5</td>
</tr>
<tr>
<td>Bristol</td>
<td>75.4%</td>
<td>33.4%</td>
<td>2.3</td>
</tr>
</tbody>
</table>

How many recent graduates does Liverpool attract from elsewhere?

While Liverpool retains a sizeable proportion of its graduate population, it does relatively poorly at attracting new graduates to the city. Only 33.4 percent of the graduates employed in Liverpool, six months after graduation, had neither studied in the city nor lived in Liverpool prior to attending university (Figure 13). In comparison, 82.2 percent of Bristol’s graduate employees were new to the city region.
Where do Liverpool’s graduates go after university?

After Liverpool, the second most likely destination for Liverpool graduates is Manchester: 9.2 percent of first degree graduates and 9.5 percent of all HE leavers move to Manchester following graduation (Figure 14). Of the other Core Cities, Leeds is the most popular destination for Liverpool graduates receiving 2.6 percent of all graduates, followed by Birmingham, which receives 1.6 percent.

A large proportion of the remaining graduates (11.3 percent) are retained within the North West Region, moving to areas like Cheshire, Warrington and Lancashire (figure 15).

<table>
<thead>
<tr>
<th>Destination</th>
<th>First degree graduates</th>
<th>All HE leavers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liverpool</td>
<td>43.3%</td>
<td>45.1%</td>
</tr>
<tr>
<td>Core Cities</td>
<td>16.8%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Rest of North West</td>
<td>11.3%</td>
<td>11.3%</td>
</tr>
<tr>
<td>London</td>
<td>4.5%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Rest of UK</td>
<td>21.5%</td>
<td>20.6%</td>
</tr>
<tr>
<td>International</td>
<td>2.6%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Source: HESA, DLHE 2009
The analysis indicates that while Liverpool graduates end up in a range of destinations across the country the majority are likely to stay within relatively close proximity to the city region, in a slim North Western corridor (see Figure 16). Some of these graduates may be drawn back to work in Liverpool at a later stage in their career. Beyond the North West only London attracts a substantial number of the city’s graduates, with four percent of all recent Liverpool graduates moving there.

**Figure 16:** Destinations of all graduates from Liverpool universities (2006/07)
**What jobs do Liverpool’s recent graduates end up in after university?**

The public sector is the most popular sector for Liverpool graduates to find employment in, with 50 percent of all higher education leavers working in this industry (see Figure 17).

Graduates retained in Liverpool are even more likely to work in the public sector (55 percent), followed by banking, finance and insurance (18 percent) and distribution, hotels and restaurants (15 percent). One of the reasons for the large proportion of graduates that enter the public sector is the significant contribution that Liverpool universities make to the medical profession. Thirty-two percent of the graduates retained in Liverpool, employed in the public sector, work in the health sub-sector.

Unsurprisingly, of the graduates that move to London far more are employed in banking, finance and insurance (39 percent) and less work in the public sector (26 percent). The pressure on public sector jobs created by the need to rein in public sector jobs could limit opportunities for graduates in Liverpool over the next five to ten years.27

---

**The impact of the recession on recent graduates**

The recession has meant that recent graduates have faced a much more competitive jobs market that has far fewer entry level graduate jobs. A recent survey of the UK’s leading graduate employers showed recruitment targets for 2009 have been reduced by 17 percent compared to 2008.28 Analysing graduate employment and retention rate data for 2006/07 and 2007/08 helps shed light on some of the early impacts of the recession on recent graduates.29

For Liverpool’s universities, the proportion of first degree graduate that were unemployed six months after graduating increased by 2.2 percentage points between 2006/07 and 2007/08. This was one of the lowest increases of the Core Cities (Figure 18). Tyne & Wear by contrast saw graduate unemployment increase by 4.0 percentage points.
But Liverpool also saw a decline in the total number of graduates retained between 2006/07 and 2007/08 and an increase in the share of its graduates moving to London. The retention rate for all higher education leavers fell by one percentage point while the share of all higher education leavers moving to London increased by 0.7 percent – the highest of all the Core Cities (Figure 19).

These figures only capture the early stages of the recession and they are normally subject to some volatility from one year to the next, but they do suggest that graduates may be responding to weaker demand in Liverpool by moving elsewhere in the country, particularly to London. If the recession leads to a sustained rebalancing of demand for high skilled workers around the country this will have an impact on graduate retention rate and high skilled worker flows for Liverpool and elsewhere.
**Longer term trends – alumni data for the University of Liverpool**

Alumni records provide further insight about graduate retention in Liverpool. A longer term, if less robust, picture can be formed. For this analysis we have only looked at former University of Liverpool students.

The long term retention rate of University of Liverpool alumni is 25 percent, which is significantly lower than the 36.9 percent observed for University of Liverpool students in the HESA statistics. The difference clearly suggests that a large chunk of graduates that are in the city six months after graduation (and are therefore captured by the HESA data) subsequently end up leaving. But the statistics also show that longer term graduate retention is improving, with the figure up from 20 percent during the 1990s to 25 percent in 2009. This probably helps explain why Liverpool has performed better than many on increasing the share of graduates in its working age population over the past 15 years.

**Lessons**

- **Most of Liverpool’s graduates stay in Liverpool and the North West after graduation.** And fewer Liverpool graduates travel to London than might be expected.

- **Graduates that lived in Liverpool prior to beginning their studies are significantly more likely to stay after graduation.** This demonstrates the importance of social and family ties.

- **After Liverpool, Manchester is the second most likely destination for Liverpool’s graduates.** This is mainly because of the greater number of jobs and career opportunities available in Manchester.

- **A large share of Liverpool’s graduates end up working in the public sector.** The pressure on public sector finances (and jobs) over the next five to ten years will probably limit opportunities for Liverpool’s graduates.

- **The recession could be forcing more of Liverpool’s graduates to move to London and elsewhere in search of work.** Universities should keep track of whether this trend continues over the years ahead.

- **Liverpool’s universities could improve their longer term tracking of graduate retention patterns.** Currently, the nationally available statistics limit analysis to a graduate’s location six months after graduation.
Priority business sectors and high skilled workers

This section of the report analyses the high level skills needs of three priority business sectors and assesses what partners in Liverpool can do to deliver on these. The sectors analysed are financial and business services, creative and digital industries and biosciences. The findings are based on three business roundtables that were held for each of these sectors in June 2009. The section makes two key points:

• Businesses do not expect new graduate recruits to have technical, sector specific skills. Most of all they want them to have strong core competencies, employability skills and commercial awareness. They can provide specialist training themselves, either in-house or through private sector providers.

• In the three sectors analysed, demand for high skilled workers appears to be relatively weaker than in other cities with strengths in these industries. Most businesses, particularly in the financial and business services sector, recognise that demand is the key issue preventing more graduates coming to the city.

The Liverpool Business Survey 2008

Among other questions, the recent Liverpool Business Survey of 1,521 businesses inquired about skills that could be strengthened to improve performance. Figure 20 sorts business respondents by size and shows the top five requirements identified and the share of businesses surveyed that identified those skills areas as issues. The most striking feature of the table is the significant increase in perceived skills needs as business size increases, suggesting that partners in Liverpool have a job to do in getting smaller businesses to take skills seriously.

<table>
<thead>
<tr>
<th>Skill area</th>
<th>Total (% of all respondents)</th>
<th>Business size by employee</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-4</td>
<td>5-9</td>
</tr>
<tr>
<td>Customer handling</td>
<td>49</td>
<td>44</td>
</tr>
<tr>
<td>Technical, practical or job specific</td>
<td>44</td>
<td>42</td>
</tr>
<tr>
<td>Team working</td>
<td>43</td>
<td>34</td>
</tr>
<tr>
<td>Oral communication</td>
<td>42</td>
<td>38</td>
</tr>
<tr>
<td>General IT user</td>
<td>39</td>
<td>38</td>
</tr>
</tbody>
</table>

The other interesting findings are that basic employability and softer skills, such as customer handling and team working, are identified as important and also that ‘technical, practical or job specific skills’ come out second top of the list, with 44 percent of all respondents citing this as an area worth strengthening.
But while technical skills are a requirement for businesses, the business roundtables held for this project showed that they do not necessarily look to the public sector to fill this gap. Instead, businesses in the priority sectors analysed expect graduate recruits to have strong employability skills and core competencies relevant to the degree courses they have studied.

**Existing employability programmes at Liverpool’s universities**

Importantly, LJMU has already introduced a major initiative aimed at improving the employability skills of its graduates, the World of Work (WoW) programme, and there could be an valuable role for Liverpool City Council and other partners in making sure this programme becomes a success (Figure 21).

The WoW programme was developed by LJMU after consulting with major employers such as Shell, Marks & Spencer and Sony. It seeks to strengthen LJMU graduates’ higher level world of work skills like communication, self-awareness, making things happen and entrepreneurship by providing work related learning opportunities and tailored career development training via a purpose built Graduate Development Centre. It is early days for the initiative, with only a handful of graduates having gone through the process so far.

Nevertheless, the programme represents a determined effort on the part of LJMU to address the needs of employers and its content matches many of the demands raised during the business roundtables held for this project. If costs can be kept to an acceptable level, the initiative has the potential to be a major success.

There could be an important role for Liverpool City Council and other partners in ensuring that the WoW programme achieves this potential. As well as keeping costs in check, success will depend on sustained engagement from local employers so that work placement and employment opportunities can be opened up and businesses can provide intelligence about how to improve course content. Local business should know about the WoW programme, but our discussions with them suggested that awareness is relatively poor. Partners, including the Council and organisations like Liverpool Vision and The Mersey Partnership, should work with LJMU to address this issue by linking the WoW programme into the Liverpool’s other employer engagement efforts.

The South West Indiana Education and Experience programme in the United States (and referenced in Figure 22) could provide some inspiration for partners in Liverpool trying to increase the number of work placements available in the city.

Other examples of graduate employability programmes from around the UK and overseas are highlighted in Figure 22. Elements or ideas from these programmes could be useful for partners in Liverpool looking to strengthen graduate employability skills.
Liverpool’s Business Bridge initiative – a partnership between the University of Liverpool, LJMU, Liverpool Hope and the University of Chester – aimed to link graduates to jobs in the Merseyside area. It was wound up in summer 2009 after funding ended, and partner universities have since integrated some of its activities into their core employability provision. The University of Liverpool’s Graduates into Employment Unit was also recently shut down due to a lack of funding, though the University retains an active careers service.

Discontinuities such as these may sometimes make sense from a performance management or funding point of view, but instability also has a cost, particularly in terms of business engagement. In future, partners in the city region should aim to achieve greater stability and continuity in service delivery and try to avoid the stop-start provision of graduate employment programmes.

The Business Bridge initiative would have been ideally suited as a vehicle for coordination between the universities, local authorities and other partners within the city region aiming to open up and promote work experience opportunities among the business community in Liverpool. Collaboration between the universities in their approach to business engagement is likely to be an important factor in increasing the overall availability of work placements among businesses in the city region. Close coordination should also ensure that improvements developed in employability training techniques are implemented by all higher education institutions.

High level discussions and leadership would initially be required to set the specific direction and objectives for this kind of collaboration. But some form of permanent resource would ultimately be needed to help coordinate, implement and administer activity. Funding could be collected from a range of partners from across the city region, including universities and local councils. One delivery option would be to reintroduce a scaled down and refocused version of Business Bridge. Alternatively, to avoid the creation of a new body, a city regional organisation such as The Mersey Partnership could be funded by partners to take forward the activity.
Whichever organisational form it eventually takes, this activity should seek to explain and promote the business case for university engagement to private sector partners and aim to facilitate an increase in the number of student work placements that each university secures.

As part of this, the activity should also link into and help build on efforts to improve business awareness of the WoW programme across the city region. Evidence from the business roundtables organised for this report suggests that private sector awareness of the WoW programme is lower than might be expected. Addressing this challenge should be a key priority for partners with a stake in the WoW programme’s success.

- **The Sussex Internship Programme**: this initiative is run by Wired Sussex, the business led digital media agency that covers the Brighton area. It provides internships for recent graduates with businesses in industries like games, web design, software development and animation. Interns receive a 30 day work placement, additional training, access to industry professionals and a grant.

- **University of Surrey**: as explained in a recent Confederation of British Industry report, 70 percent of the University of Surrey’s undergraduates participate in work placements. Each department has a senior professional training tutor (a member of academic staff) and professional training administrator to help engage with businesses and monitor student progress throughout the year.

- **Curtin University, Australia**: in its ‘Curriculum 2010’ initiative this university has identified nine attributes that businesses and other organisations expect from its graduates and is reconfiguring all of its courses to ensure that these learning outcomes are achieved.

- **Victoria University, Australia**: this university has recently introduced a wide ranging reform programme called ‘A New School of Thought’. One of the key objectives is to create ‘job ready and community aware graduates’ and, as part of the effort to achieve this, the university has committed to having all courses include 25 percent of assessable learning in the workplace.

- **Southwest Indiana Education & Experience (E2), United States**: this is a partnership between higher education institutions, the chambers of commerce, economic development bodies and other civic organisations. It works by engaging with employers and offering them support to increase the number of internships and then advertising these internships on a dedicated website.

- **The Fenn Academy – Cleveland, United States**: This programme is designed to increase the number of engineering graduates in Cleveland. The approach targets high school students and connects them with local corporate sponsors. Participating students are referred to as ‘Fenn Scholars’ and at high school are linked up with current engineering students to take part in a customised pre-engineering program.
Skills needs in priority sectors

Financial and business services

The financial and business services industry covers a wide range of sectors, including architects, legal firms and IT businesses as well as banking, insurance and accountancy. In Liverpool, ‘banking, finance and insurance’ represented 18.6 percent of total employment in 2007. This made it the city region’s third largest source of employment after ‘public administration, education and health’ (35.2 percent) and ‘distribution, hotels and restaurants’ (21.9 percent).

The sector has not been as badly hit by the recession as initially feared, but jobs have been lost, including 985 in the Liverpool and Chester areas following the merger of Lloyds and HBOS. Reports from the Financial Services Skills Council, which covers areas like banking, insurance and accountancy, explain that the employability skills of new entrants are a key concern for businesses.36

Interviews and a roundtable held with businesses in Liverpool’s financial and business services sector uncovered the following points.

• Local firms recognise that demand is the key issue preventing more graduates settling in Liverpool. They do not experience significant difficulties in recruiting recent graduates.

• Firms in the sector look for graduates with strong basic and employability skills, meaning that they want people who are proficient in areas like maths and English, as well as being able to communicate effectively, operate in a team and demonstrate leadership.

• Awareness of efforts by Liverpool’s universities to improve the employability skills of their graduates was minimal. This suggests that there could be an important role for Liverpool City Council through strengthening awareness of programmes like Liverpool John Moores University’s World of Work programme.

• Businesses do not expect recent graduates to have technical sector specific skills or to be trained for particular roles. Professional qualifications on law, accountancy and finance are all delivered in house or through private sector providers.
Biosciences

The UK is recognised as Europe’s leading centre for bioscience research and business activity. Liverpool has a long history in the sector – particularly in bio manufacturing – and currently has about 5,000 workers employed in the industry. Key employers include Astra Zeneca, Novartis and Eli Lilly, though many of the jobs in these firms are linked to relatively basic bio manufacturing functions and are increasingly vulnerable to being moved abroad.

Meanwhile, the University of Liverpool has research strengths in oncology and infectious disease, with its School of Tropical Medicine an important research centre that has attracted investment from the Gates Foundation.

National research has shown that the UK’s bioscience firms are finding it hard to hire the skilled workers they need to succeed. Firms are encountering quantity and quality problems in both high level scientific and managerial functions. Businesses are also concerned about the general quality of science graduates coming out of UK universities, arguing, for example, that practical research skills in areas like physiology and pharmacology are not up to the required standard.

Interviews and a roundtable held with businesses in Liverpool’s biosciences businesses uncovered the following points.

- Overall, businesses expect recent graduates to have strong knowledge of their subject and be competent in basic research and lab techniques. They also want them to have better commercial awareness than is often the case.
- Universities are criticised for producing graduates with limited commercial awareness, but firms recognise that there needs to be a balance between science education and business awareness. Universities cannot fit everything into degree courses. Given the choice, businesses would favour strengthening science skills over commercial acumen.
- The best way to improve the quality of science graduates coming out of the universities is to carry on strengthening their research excellence and fund them more generously so that students have more opportunity to learn practical skills during their degrees.
- Attracting experienced professionals to Liverpool can be a challenge for firms, but this is often due to the strength of demand and relative attractiveness of places like Oxford and Cambridge. Liverpool may be struggling to provide sufficient options for career progression for some experienced professionals.
- When asked what the sectors key growth challenges were, business did not identify access to high level skills as a top challenge. Instead, priorities included reducing the cost of interacting with the city’s universities and improving transport.
Creative and digital industries

Another of Liverpool’s priority business sectors is creative and digital industries. Liverpool is well known for having a thriving cultural and music scene. But it is also establishing itself as a centre for the computer games industry in the UK – with Sony having a large presence in the city – and has a range of other creative and new media businesses, such as web and digital communications companies.

Interviews and a roundtable held with businesses in the sector uncovered the following points:

• Graduate employability skills are seen as a priority. Requirements include time management, understanding how business works, meeting deadlines and project management.

• On technical skills, businesses highlighted the difference between the technical standards and pace of change in universities compared to industry. The sector moves on too quickly for universities to keep pace.

• Partly because of this graduates are not able to start working immediately. Instead it often takes three to six months to train them up on the technical side. Businesses will conduct this training in house or send new recruits to private sector providers to have them trained up on the latest technologies.

• Some ‘technical’ skills, such as using a Mac, were considered to be more suitable to be taught in schools. Universities might be able to play a role in encouraging this through increasing course entry requirements.

• Only six of the UK’s 200 computer games degree courses are accredited by the relevant sector skills council, Skillset. None of these six are in Liverpool’s universities, although LJMU has secured media academy status as a centre of excellence in television and interactive media. While universities and businesses need to be realistic about the scope for keeping up with every industry need, accreditation in this important subsector might help improve the industry relevance of courses.

• There is pressure for businesses that exceed 30-50 people to get out of the city, because there is not enough local demand to support companies larger than that.

• Businesses do not necessarily need to move out of Liverpool to access other national markets, but Manchester (and maybe London) are attractive because of the higher demand, the greater talent pool and the stronger cluster of firms.

• Whether they move or not, growth businesses need to start looking to wider national and international markets to expand further. Manchester firms tend to be better at this kind of thinking than those in Liverpool. There may be scope for some targeted trade support.
Lessons

• For the most part, businesses in the priority sectors analysed want graduates with strong employability skills and core competencies. Efforts to improve employability skills are already underway and should be supported as far as possible (see below).

• Partners should work together to ensure that existing employability programmes are successful. Local authorities and economic development bodies should help increase business buy-in and awareness of employability and work experience efforts, particularly LJMU’s World of Work programme. Working together will help share the cost of this activity and should also help maintain the stability of arrangements.

• There is limited call for graduates to be trained up in industry specific roles or particular techniques and technologies. Businesses – particularly those in the financial and business services and creative and digital sectors – can supply the industry specific skills needed either through in house or specialist private sector training.

• Biosciences firms have a higher demand for graduates with specialist expertise. They want them to have a good knowledge of their subject and strong lab skills. This has already been identified as a national issue linked to limited funding and increasing class sizes on university courses.

• Some firms have trouble recruiting the skilled workers they need. But they acknowledge that this is largely because demand is stronger in other cities like Cambridge (for biosciences workers), Manchester and London (for creative industries workers).
What should policy makers do?

This section of the report sets out policy recommendations for decision makers aiming to increase Liverpool’s stock of high skilled workers and explains what strategies they should adopt to deliver the graduates needed by businesses in priority business sectors.

1. **Drop plans to introduce a graduate retention target and stay focused on increasing the share of the working age population educated to degree level instead**

   The broader measure is a more useful one because it captures the movement of experienced professionals as well as recent graduates and is a better indicator of a city’s stock of skilled workers.

   Good progress has been made on increasing the share of graduates in the Liverpool workforce over the past decade. The share of the working age population educated to at least NVQ4 increased from 13.8 percent in 1995 to 23.4 percent in 2008. This narrowed the gap between Liverpool and the Core Cities average from 3.5 percentage points to 2.3 percentage points. A stretching target for the next decade would be for Liverpool to close this gap altogether by 2020.

2. **Strengthen educational attainment to improve skills throughout the workforce**

   The best way for most cities to increase the share of high skilled workers in their economy is to improve educational attainment and strengthen workforce development so that the supply of indigenous talent is increased. This also has the added benefit of making the city region more attractive for skilled workers with young families who want to send their children to high quality schools.

   Liverpool City Council has recently been making excellent progress on increasing GCSE attainment. Partners in the city region should concentrate on maintaining improvements here and they should pay particular attention to further improving attainment in maths and English, which still lag the national average. Meanwhile, on 14-19 and 19+ skills they should aim to deliver on the forthcoming Liverpool City Region Integrated Employment and Skills Strategy that is currently being researched by the University of Glasgow.

3. **Help boost demand for high skilled workers by concentrating on innovation, inward investment and enterprise policies**

   Liverpool’s Knowledge Economy Group (KEG) – a high level group that brings together university vice chancellors, policy makers, the private sector and other leading decision makers – is a valuable tool and should be used to coordinate efforts to boost demand for high skilled workers.
The KEG should conduct a regular review of demand side policies – around issues like innovation, enterprise, inward investment and support for priority sectors. This need not be a major undertaking, but should check that the city region’s resources are being deployed to maximum effect, assess options for the improvement of existing programmes and review the case for additional demand side programmes.

4. **Support the focus on employability skills at Liverpool universities by improving business awareness of existing programmes**

Liverpool John Moores University has already introduced a major push on graduate employability skills through its World of Work (WoW) programme though this is still in its early stages. Partners in Liverpool, particularly Liverpool City Council, should investigate ways of helping this initiative become a success. Working to increase employer awareness of the scheme should be the first task. Going forward, major employers should also be encouraged to sponsor the scheme.

There is also scope for more collaboration between universities and other partners in Liverpool over work placement and employability initiatives. The Business Bridge partnership between the universities aimed to achieve this, but was wound up after funding came to an end. A scaled down version of the initiative could be reintroduced or responsibility for the activity could be given to an organisation like The Mersey Partnership. Greater financial involvement from city regional local authorities would help to share the costs of the programme. This would be justified given that the benefits would be distributed among students and businesses from across the city region.

5. **Redesign computer games courses to gain further industry accreditation and strengthen practical skills training on science courses**

Liverpool John Moores University could make its computer games course more relevant to employers (and help improve the employment outcomes achieved by their students) by redesigning it to gain accreditation from the industry-led sector skills council, Skillset.

The poor standard of practical skills training on university science courses is a nation wide problem linked to the constraints on university resources. Still, Liverpool’s universities could place more emphasis on basic research skills training in their courses even though this might have to come at the expense of other types of course content. They could also try to increase the number of short term work placements or knowledge transfer partnerships available to students. As described above, greater partnership working between local partners might help to open more of these kinds of opportunities.
Liverpool MAA* profile

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population (2008)</td>
<td>1,467,600</td>
<td></td>
</tr>
<tr>
<td>Population growth (1998-2008)</td>
<td>-2.7%</td>
<td></td>
</tr>
<tr>
<td>Working age population (2008)</td>
<td>906,200</td>
<td></td>
</tr>
<tr>
<td>Total jobs (2007)</td>
<td>593,100</td>
<td></td>
</tr>
<tr>
<td>Jobs growth (1997-2007)</td>
<td>7.6%</td>
<td></td>
</tr>
<tr>
<td>Employment rate (March 2009)</td>
<td>66.3%</td>
<td></td>
</tr>
<tr>
<td>Economically active (March 2009)</td>
<td>72.2%</td>
<td></td>
</tr>
<tr>
<td>Inactive seeking a job (March 2009)</td>
<td>7.4%</td>
<td></td>
</tr>
<tr>
<td>Inactive not seeking a job (March 2009)</td>
<td>20.3%</td>
<td></td>
</tr>
<tr>
<td>JSA claimant count (September 2009)</td>
<td>6.3%</td>
<td></td>
</tr>
<tr>
<td>Total key benefit claimants (February 2009)</td>
<td>24.3%</td>
<td></td>
</tr>
<tr>
<td>Gross average weekly wage (residence)</td>
<td>£439</td>
<td></td>
</tr>
<tr>
<td>Gross average weekly wage (workplace)</td>
<td>£443</td>
<td></td>
</tr>
</tbody>
</table>

Index of Multiple Deprivation Ranking (PUA 1=least deprived)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liverpool</td>
<td>56 (out of 56)</td>
<td>56 (out of 56)</td>
</tr>
<tr>
<td>(Knowsley, Liverpool, St. Helens)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birkenhead</td>
<td>23 (out of 56)</td>
<td>23 (out of 56)</td>
</tr>
<tr>
<td>(Wirral, Ellesmere Port &amp; Neston)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skills profile (2008) (% of working age population)

<table>
<thead>
<tr>
<th></th>
<th>Liverpool MAA</th>
<th>GB</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVQ4 &amp; above</td>
<td>23.4%</td>
<td>29.0%</td>
</tr>
<tr>
<td>NVQ3</td>
<td>15.8%</td>
<td>15.9%</td>
</tr>
<tr>
<td>NVQ2</td>
<td>19.7%</td>
<td>16.0%</td>
</tr>
<tr>
<td>NVQ1</td>
<td>13.7%</td>
<td>13.7%</td>
</tr>
<tr>
<td>Other Qualifications</td>
<td>5.7%</td>
<td>8.7%</td>
</tr>
<tr>
<td>No Qualifications</td>
<td>17.5%</td>
<td>12.4%</td>
</tr>
</tbody>
</table>

*The Liverpool City Region MAA covers the boroughs of Halton, Knowsley, Liverpool, St Helens, Sefton and Wirral.

Acknowledgements

The Centre is grateful to Liverpool City Council, the University of Liverpool and Liverpool John Moores University for the financial support which made this report possible. The Centre would also like to acknowledge the considerable time Council officers, university personnel and a wide range of external public and private sector stakeholders - particularly Liverpool Vision, Professional Liverpool and DLA Piper - were prepared to devote to discussions with the research team.

Finally, the Centre would like to thank the North West Development Agency for their assistance in the collation of the Higher Education Statistic Agency (HESA) dataset.