The Great British Brain Drain
An analysis of migration to and from Preston

November 2017

Introduction

The economic performance of UK cities is increasingly dependent on the skills of their workforce. Cities across the UK face the challenge of both attracting and retaining high-skilled talent.

In autumn 2016, the Centre for Cities published *The Great British Brain Drain*\(^1\) that looked at the migration between the UK, specifically between cities, with a focus on the movements of new graduates.

The report found that:

- Movers tend to be more skilled than the population overall: degree holders represented 32 per cent of the population but 38 per cent of all the people that moved.
- Younger degree holders tend to move larger distances with London attracting the largest share of these young graduates. In contrast, older degree holders don't tend to move as far and tend to remain within a commutable distance of the city they leave.
- Many university cities lose their graduates to London, with this movement especially strong for the highest performing graduates with 2.1 or 1st class degrees from Russell Group universities.
- Most university cities experience a 'graduate gain'; they gain more graduates than they lose. This is because the majority of movements to and from cities consist of students moving to a new city for university, and then moving again for work, with over half of all graduates following this pattern.

This briefing is a complementary piece of analysis to the main report, in which we look in detail at the nature of graduate mobility into and out of Preston. Firstly, it looks at overall migration patterns to and from Preston. Secondly, it looks specifically at the movements of students and new graduates. Finally, it looks at the new graduate labour market in the city.

Centre for Cities uses the Primary Urban Area (PUA) definition of cities. For Preston this comprises of Chorley, Preston and South Ribble. For more information visit: http://www.centreforcities.org/puas/.

The nature of migration to and from Preston

This section combines migration data from the ONS and the Census to look at migration to and from Preston by age and qualification.

Preston experienced a small net inflow of people

Between 2009 and 2015, 84,470 people moved into Preston from England and Wales and 83,320 moved out. As a result there was a net inflow of 1,150 people into the city. In comparison, Bournemouth experienced the largest net inflow of 15,100 people and London the largest net outflow of 340,300 people.

Much of this migration flow was between Preston and the rest of the North West – 65 per cent came from the North West and 60 per cent of those who moved out remained in the region. The result was a considerable net inflow from the rest of the North West between 2009 and 2015, as shown in Figure 1. While it saw a small net inflow from the West Midlands, it saw net outflows to all the other regions. The largest outflow was to London, followed by the South West.

Figure 1: Net regional migration to Preston, 2009-2015

On a city basis, Preston saw its largest net inflows from Manchester and Blackburn, accounting for 41 and 31 per cent of the net inflow from the North West. This highlights that the majority of migration took place between Preston and its neighbouring cities. There was also a large outflow to London and Blackpool (see
Figure 2). This is in line with the regional picture: all the other cities in the North West, with the exception of Warrington, experienced an outflow to the capital.

**Figure 2: Net flow migration to Preston (2009-2015), all ages**

Preston gains 16 to 21 and 31 to 45 year olds but loses people in all the other age groups.

When broken down by age, the pattern of migration varied greatly. Figure 3 shows that 16 to 21 year olds dominated migration patterns: this age group accounted for 8 per cent of Preston’s population but 28 per cent of inward migration and 22 per cent of outward migration. Similarly, those aged 22 to 25 also played an important role in the migration flows. This age group accounted for 21 per cent of all outward migration but only 6 per cent of population. In comparison, 31 to 45 year olds accounted for 18 per cent of inward and outward migration and 19 per cent of population.
The result of these patterns was that Preston experienced a large net inflow of 16 to 21 year olds. For this age group, the net inflow was equal to 5,440. There was also a small inflow of 31 to 45 year olds. These are likely to be families as there was a similar inflow of 0 to 15 year olds. Countering this, the city saw a net outflow of 22 to 25 year olds and 26 to 30 year olds (see Figure 4).

**Figure 3: Contribution of each age group to migration and to the city’s population**

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Preston lost degree holders in younger age groups to the North West but it gained older ones from the rest of the region.

While ONS data on migration does not give information on the qualifications of migrants, the 2011 Census provides us with this information for movers between 2010 and 2011. When the data is split into three age groups, 16 to 21, 22 to 20 and 31 to 45 year olds, three distinct trends emerge.
Preston saw a net inflow of 16-21 year olds from all regions in England and Wales apart from the North East, Yorkshire and the Humber and London. Of the 16 to 21 year olds moving to Preston, the majority had A-level qualifications.

Figure 5 shows the resulting net inflow of these young people. The largest net inflow of people with A-level qualifications occurred from the rest of the North West.

**Figure 5: Net flows of 16 to 21 year olds by region and qualification, 2010-2011**

Overall, Preston lost more 22 to 30 year olds than it gained. Breaking this down by qualification shows that there was a large net outflow of degree holders. With the exception of Wales, Preston lost degree holders to all regions, with the largest net outflows to London and the rest of the North West. This suggests that while Preston is an attractive place to study, it is less so for degree holders looking for work. Interestingly, the city gained people with A-levels and lower qualifications and the largest net inflow for these two groups was from the rest of the North West.

**Figure 6: Net flows of 22 to 30 year olds by region and qualification, 2010-2011**

Source: Census, 2011
The second wave of degree holders leaving Preston was of those aged 31 to 45. However, the geography of this net outflow was different from that of the younger age groups. Preston gained degree holders from the rest of the North West and this is different from most UK cities that tend to lose degree holders in this age group to the rest of the region in which they are located. Preston also gained degree holders from Wales, London and the East of England but it lost them to the other regions (see Figure 7).

Figure 7: Net flows of 31 to 45 year olds by region and qualification, 2010-2011

Source: Census, 2011

Looking again at the wider migration data for 2009 and 2015, which allows us to look at the movement between local authorities in England and Wales, shows that the majority of these 31 to 45 year olds did not come from very far; on a net basis, West Lancashire was the authority that Preston gained most people from, followed by Hyndburn. This is the opposite of what we see in other UK cities, where older degree holders tend to move out of cities but remain within commutable distances.

Summary

Overall, Preston experienced a small net inflow to the city between 2009 and 2015. Breaking this down shows nuance to the overall picture:

- There was a large inflow of 16 to 21 year olds to the city. Many of these are likely to have been students going to university, which is explored in the next section.
- The city experienced a large net outflow of young people with a degree and this was driven by graduates moving to the rest of the North West and London.
- There was also a small net outflow of degree holders aged 31 to 45. Though some of these older graduates from the rest of the North West, London and Wales moved to Preston, this was offset by those moving to other regions.
A more detailed look at the movement of students and graduates

The data above suggests that universities play an important role in the movements of people to and from Preston. This section explores the migration patterns of students and graduates into and out of the city using two data sets from the Higher Education Statistics Authority (HESA). The first looks at admissions (for all students at university in 2014/15), and the second is based on a survey of graduates six months after graduation (for leavers in 2013/14 and 2014/15). Unlike the ONS data used above, it covers the whole of the UK and includes students who came from abroad.

**Box 1: University of Central Lancashire**

This analysis covers the University of Central Lancashire campus in Preston. In the academic year 2014/2015 there were 25,120 students enrolled at this university.

Preston’s university mainly attracts students from its own region. In the academic years 2014/15, 69 per cent of students at university were from the North West, with 15 per cent from Preston and 54 per cent from the rest of the North West. The next large group was foreign students – 11 per cent.

**Figure 8: Origins of Preston’s university students, 2014/15**

Looking specifically at cities, Figure 9 shows which UK cities university students in Preston have moved from and highlights the regional pull of Preston’s university: 15 per cent of students who moved to Preston were originally from Manchester. The second largest share of students – 7 per cent – came from Blackpool.
Figure 9: Origin cities of those who came to university in Preston, 2014/15

Share of students who moved to Preston to study (%)
- Blackpool (7)
- Manchester (15)
- 0
- 0.01 – 2
- 2.01 – 5

Source: HESA, Admissions Survey, 2014/15
More than a third of all young people in Preston who went to a UK university studied in Preston

When we look at where Preston students decided to study, the data shows that 37 per cent stayed in Preston, the 27th among UK cities for share of stayers. The majority of students that moved elsewhere did not go very far: 56 per cent moved to the rest of the North West and 13 per cent moved to the Yorkshire and the Humber. If we look at the cities they moved to, 21 per cent of these movers went to study in Manchester and 9 per cent went to Liverpool.

**Figure 10: Destinations of Preston’s students who left the city, 2014/15**

Source: HESA, Admissions Survey, 2014/15
Overall, for the academic year 2014/15 there were 12,190 more students who moved into Preston to study than left Preston to study elsewhere. This was the 19th largest net inflow of all UK cities.
Movements of new graduates post university

Preston retained a fifth of its students on graduation

As a city, Preston retained 22 per cent of its graduates in 2013-15 period, the 27th highest rate among UK cities with a university, as shown in Figure 12. The cities with the highest rates were London and Manchester, keeping 77 and 51 per cent of their graduates, respectively.

Figure 12: Retention rates of each UK city, 2013/14-2014/15

Source: HESA, Destination of Leavers Survey, 2013/14–2014/15
Manchester was the most popular city destination among Preston’s graduates.

Within 6 months of graduation Manchester was the most common employment destination among Preston graduates – 18 per cent of Preston’s graduates who moved were working in this city. The next most common cities to move to were Blackpool and Blackburn with nine and seven percent respectively (see Figure 13).

Figure 13: Destinations of Preston’s graduates who move to other cities for work, 2013/14 – 2014/15

Source: HESA, Destination of Leavers Survey, 2013/14 - 2014/15
Another component of graduate migration comprises of those attracted into Preston after graduation to work. While graduate retention figures tend to get a lot of attention, the ability of a city to attract in new graduates from elsewhere is an important part of increasing the number of degree holders in a city.

Again, there are two groups within this cohort: those that grew up in Preston, moved away to study and then returned for work, and those that moved in for work but had not lived in the city previously.

Looking firstly at returners, those students who moved away from Preston to study, 34 per cent returned for work. The highest rates were in London and Manchester, with 74 and 58 per cent respectively.

Turning to those who moved in for work, Preston was relatively less attractive than other cities to new graduates who had not lived in Preston before. The number of new graduates attracted in for work that had no previous connection to Preston was equivalent to 29 per cent of the graduate workforce, the 14th lowest among UK cities with a university.

**Preston gained graduates overall**

Combining this data on student and new graduate moves shows that overall Preston experienced a small graduate gain. Between 2013 and 2015, 1,840 graduates who responded to the survey had left Preston to go to university elsewhere, whilst 1,960 respondents, who did not grow up in Preston, were employed in the city after graduation. Figure 14 shows the size of this graduate gain. In absolute terms, this places Preston as the 39th highest gainer of graduates when compared with other UK cities. London gained 42,000 of the graduates who responded and Manchester gained 4,700.

**Figure 14: Comparing students lost and graduates gained by Preston, 2013/14 - 2014/15**

This finding may not appear to square with the earlier finding about the net outflow of young graduates from Preston. This is because there is one final cohort of students: the bouncers. These students move into Preston to study and leave straight after graduation. Of all the students who moved to Preston to study, 87 per cent bounced, the 14th highest rate among UK cities with a university campus. This cohort causes a lot of noise in the data. By excluding them and comparing the number of (would be) graduates in Preston before university with the number of graduates in the city after graduation, the graduate gain figure can be calculated. As Figure 15 shows, the graduate gain was much lower than the number of bouncers, driving the outflow of young graduates shown earlier.
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Figure 15: The bouncers and the graduate gain, 2013/14 - 2014/15

![Bar chart showing the bouncers and the graduate gain, 2013/14 - 2014/15](chart)

Source: HESA, Destination of Leavers Survey, 2013/14 - 2014/15

The nature of the new graduate workforce

The final section looks at the characteristics of the new graduates’ labour market in Preston.

Half of new graduate workers in Preston studied elsewhere

Figure 16 brings together all graduates who decided to work in Preston on graduation to provide an overview of the nature of the graduate workforce in the city. 26 per cent of all workers were home-grown: growing up, studying and subsequently working in Preston. More than a quarter of workers had come to study in Preston and stayed for work. 29 per cent of new graduate workers had been attracted in from elsewhere.

Figure 16: The components of the new graduate workforce, 2013/14 – 2014/15

![Bar chart showing the components of the new graduate workforce, 2013/14 – 2014/15](chart)

Source: HESA, Destination of Leavers Survey, 2013/14 - 2014/15

In terms of the class degree achieved, the composition of Preston’s graduate workforce is somewhat different from the one of the UK as a whole. Only 5 per cent of graduates working in Preston had a first or upper second class degree from a Russell Group University; for the UK as a whole the figure is 16 per cent. Meanwhile the city had a higher share of non-Russell Group with a first or upper second class degree.
Graduate wages in Preston are below the national average

Graduates working in Preston earned on average £21,890 and this is the 39th highest graduate wage among UK cities as shown in Figure 18. However, analysis of UK graduates finds that graduates' wages were not the main reason why graduates choose their employment location. Other factors such as the type of jobs available in that city and the opportunities for career progression were more important.
Figure 18: Mean graduate wages of each UK city, 2013/14 – 2014/15

Source: HESA, Destination of Leavers Survey, 2013/14 - 2014/15
If we look at wages by sector, as shown in Figure 19, construction was the sector with the highest graduate wages. These are slightly higher than the national average graduate wage for this industry and the 14th highest among UK cities. However, graduate wages for those who worked in KIBS were substantially lower than the national average as well as the UK cities average.

**Figure 19: Graduate wages by sector, 2013/14 - 2014/15**

![Graduate wages by sector, 2013/14 - 2014/15](image)

The share of graduates in high-skilled jobs is below the UK average.

The type of jobs available to graduates in each location will be a major determinant of where they choose to work. Figure 20 shows that 74 per cent of new graduates in Preston were employed in high-skilled occupations but this is a lower proportion than for the UK as a whole. Slough, with 83 percent, had the highest share of graduates in high-skilled occupations. Preston's share of new graduates in low-skilled jobs is higher than the UK average, and the 14th highest among UK cities. Oxford, with 6 per cent, had the lowest proportion of graduates in low-skilled jobs.
More than half of new graduates in Preston are employed in the publicly-funded services sector.

Figure 21 shows that 59 per cent of all graduates working in Preston were employed in publicly-funded jobs. This is considerably higher than the UK average and the 22nd highest among UK cities. At 8 per cent, the share working in private knowledge intensive business services (KIBS) was almost half the UK average and the 18th lowest among UK cities.
Looking at a finer industrial breakdown shows that in the publicly funded services, 28 per cent of all new graduates worked in health and 21 per cent in education.

Whereas the above analysis looks at the graduate workforce in Preston, the sectors employing new graduates from Preston outside of the city differs. Of those who studied in Preston but worked elsewhere 6 months later, 10 per cent worked in the KIBS sector, 48 per cent in the publicly funded services and 32 per cent in other private services. This suggests that one of the reasons why graduates move away is because certain sectors lack opportunities.

The type of graduate jobs available plays an important role in determining the size of the graduate workforce. The Great British Brain Drain\(^2\) found that graduate gains tend to be larger in cities with a smaller share of new graduates in publicly-funded jobs and a higher share in KIBS jobs. This suggests that in order to increase the size of the graduate workforce, Preston should promote growth in this sector.

**How should policy encourage the growth of KIBS jobs?**

High-skilled businesses require high-skilled workers. This means for a city to attract these types of businesses, they need to have a large pool of skilled workers to offer. There are two main things that policy can do to address this.

The first is to improve the skills of those people that have no or few formal qualifications. Educating someone to degree level, while a good thing in itself, is unlikely to have a great impact on Preston’s economy for the reasons outlined above. Instead, improving the skills of those with very poor qualification levels will make those individuals more productive, and because mobility of this group tends to be lower, have a subsequent impact on the stock of skills in the city.

The second is to better link those people with degree-level skills living around the city into the city itself. Of all the degree holders that live in the Lancashire LEP area, 71 percent live outside of the Preston PUA. Better linking this wider cohort into the city requires stronger transport connections with neighbouring areas, widening the pool of potential workers that businesses can choose from. The current development of new road schemes as part of the City Deal will improve access to Preston from other parts of Lancashire. Any further appropriate developments to further increase access into the city should also be considered upon the completion of these works.

Location is also important for high-skilled services businesses. As the work of Centre for Cities has shown, these jobs have increasingly preferred a city centre location.\(^3\) And as our previous work on Preston has demonstrated, the economic performance of its city centre has been weak in recent years.\(^4\) This means that reviewing the suitability of the commercial property available in the city centre, and reconfiguring existing stock and building new offices where appropriate should be done alongside required public realm improvements. Cities like Birmingham and Manchester that have managed to improve their city centres have also succeeded in attracting private sector jobs to their urban core.\(^5\)

These steps should improve the attractiveness of Preston to KIBS businesses, which in turn would increase the number of graduate opportunities available in these businesses in the city.

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Conclusions

Preston's migration patterns are dominated by movements of university students and young graduates. There was a large net inflow of young people into the city for university, and the largest net outflow occurred as 22 to 30 year-old degree-educated residents left the city. Most of these migration flows are between Preston and the rest of the North West.

Overall Preston gains graduates. The inflow of students to study in the city’s higher education institutions was followed by an outflow of new graduates. But these movements mask the underlying trend of Preston gaining graduates. While many people who had come to study left upon graduation, some remained and others have come to Preston to work. This increased the number of degree holders working in the city.

To increase the number of graduates working in Preston, be they from the University of Central Lancashire or from elsewhere, the city should focus on improving job opportunities. This includes supporting the private sector to strengthen the local economy.

High skilled employment will be crucial to attracting new graduates. As these jobs typically concentrate in city centres, the business environment in Preston’s urban core must be improved to support this type of activity. This would include improving the suitability of the office space to help businesses grow and making the city centre more accessible by improving its transport links with the rest of Lancashire.

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Second Floor
9 Holyrood Street
London SE1 9EL

www.centrefforcities.org

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