Data Note 1/2017
UCAS applicant and application volumes in Scotland 2008-2015

Euan Murphie
Intern
Urban Big Data Centre, University of Glasgow

Introduction

This note provides an initial analysis of the trends in the numbers of applicants and applications to higher education using the Universities and Colleges Admissions Service (UCAS) Exact data sets¹. An applicant is defined as an individual making at least one choice through the UCAS main scheme and an application is a choice to a course in higher education through the UCAS main scheme. Each applicant can make up to five applications, and these statistics do not include choices made through other acceptance routes such as Clearing. There is currently a cost of £13 for a single application, and £24 for two to five applications.

The statistics contained in the UCAS Exact data refer to the domicile of the application and applicant rather than to where they applied. For example, the dataset for Scotland returns statistics on all applicants normally domiciled in Scotland, regardless of where they apply to, rather than applicants who apply to study at a Scottish higher education institute.

It is also worth noting the following when comparing results from Scotland with the UK:

- **The different education system in Scotland to the rest of the UK** – Scottish school pupils sit Highers exams in their 5th year of high school, followed by Advanced Highers in their 6th year. In the rest of the UK, pupils normally gain entry to higher education based on A-Level exams in their final year of school
- **The length of a degree** is four years in Scotland compared with three years in the rest of the UK
- **Tuition fees** – Scottish students’ fees are automatically paid to the university if they are studying in Scotland, whereas students from the rest of the UK - or Scottish students studying in the rest of the UK - will pay tuition fees
- **The data use two measures of deprivation** – the Scottish Index of Multiple Deprivation (SIMD) 2012² and the most recent Participation of Local Areas (POLAR3) classification³. The ‘Education Domain’ has a 14% weighting on the overall SIMD score, within which the number of young people enrolling in higher education is one of five indicators. POLAR3 is devised by the Higher Education Funding Council for England (HEFCE) and ranks areas into quintiles in the same order as SIMD, but is based on percentage of young people who enter higher education. POLAR3 correlates with other measures of deprivation, although this relationship is not always strong. POLAR3 captures a specific aspect of deprivation (educational disadvantage) that is different from other types of deprivation and is not necessarily a substitute for other measures of deprivation.

¹ Data used: Exact_001811, Exact_001812, Exact_001824
² http://www.gov.scot/Topics/Statistics/SIMD/BackgroundMethodology
³ http://www.hefce.ac.uk/analysis/yp/POLAR/
disadvantage. This should be kept in mind when comparing results between Scotland and the rest of UK.

- **Young people in Scotland are more likely to live in deprived areas**
- **Disclosure control** was applied by UCAS to all original data sets; each cell was rounded to the nearest five and cells equalling zero omitted from the data set. For this reason, all results presented here should be treated as approximate figures.

### Scotland

**Table 1. Applications and applicants by SIMD quintile, Scotland 2008 and 2015**

| SIMD Quintile | Applications | | | | Applicants | | | |
|---------------|--------------|--------------|--------------|--------------|-------------------|--------------|--------------|
| 1 High        | 13310        | 28010        | 14700         | 110.4         | 6820       | 11485      | 4665          | 68.4         |
| 2             | 17600        | 31050        | 13450         | 76.4          | 8725       | 12540      | 3815          | 43.7         |
| 3             | 23370        | 37560        | 14190         | 60.7          | 11155      | 15070      | 3915          | 35.1         |
| 4             | 30635        | 43690        | 13055         | 42.6          | 14340      | 17305      | 2965          | 20.7         |
| 5 Low         | 41620        | 54385        | 12765         | 30.7          | 18960      | 21140      | 2180          | 11.5         |
| Total         | 129620       | 195355       | 65735         | 50.7          | 61410      | 77690      | 16280         | 26.5         |

*Note: Total includes values for 'Not assigned' postcodes – where it was not possible to assign a quintile*  

Scotland has seen an overall increase in applications of 50.7% (see Table 1). When this growth is broken down into levels of deprivation, indicated by the SIMD quintiles, we can see that the areas of higher deprivation have experienced faster than average growth rates. Furthermore, the higher the deprivation level, the larger the percentage increases. Applications from quintile 1, the most deprived areas, have increased 110% compared with just 30% increase for least deprived quintile 5. As there is a clear correlation between higher deprivation levels and larger proportional increases in applications, it may indicate a closing of the gap in access to higher education between students from areas with high and low levels of deprivation.

Table 1 also shows that this trend applies to individual applicants. The number of applicants in quintile 1 has increased by 68% - almost six times higher than quintile 5 (12%) and more than double the average for Scotland (27%). Notably, the order of the middle quintiles 2, 3, and 4 remains consistent with that of applications. By dividing the total applications by total applicants for the years 2008 and 2015 we get an average rate of 2.1 and 2.5 respectively; suggesting that it is mainly the increase in applicants that has driven growth in applications, rather than an increase in the average number of applications per applicant. Figure 1 shows a steady increase in applications and applicants across all SIMD quintiles in the years 2008-2011. Between 2011 and 2014 the number of applications and applicants remained constant for most quintiles, after which the increasing trends recur. However, the number of applicants and applications from quintile 1, the areas with highest deprivation, rose throughout 2008-2015.

---

4 [http://www.hefce.ac.uk/pubs/year/2014/201401/]
In absolute terms, application increases over the time period are similar across SIMD quintiles: for example, the number of applications from quintile 1 increased by 14700, whereas applications from quintile 5 increased by 12765 (Table 1). Higher proportional gains were therefore generated due to the lower base levels of the areas of high deprivation. For applicants, an absolute increase of 2180 in quintile 5 is less than half of the 4665 absolute increase in quintile 1, demonstrating a trend towards higher numbers of applicants from more deprived parts of the country. However, keep in mind that in Scotland young people are more likely to live in deprived areas.

Example: Greater Glasgow

Greater Glasgow has had a 64.7% overall increase in applications in 2008-2015, around 14% higher than Scotland overall. Again, there is correlation between higher deprivation levels and larger proportional increases in applications. Applications from the most deprived areas of Glasgow rose by 121% - nearly double of the Glasgow average and over two times that of the Scottish average. This increase means that that in absolute terms the number of applications from the most deprived quintiles in Glasgow now approximates the number of...
applications from the least deprived Glasgow areas, and is greater than the middle quintiles 2, 3, and 4 (see Figure 2). Applications from the least deprived areas of Glasgow increased 36%, which is similar with the 30% increase for these areas across Scotland. Quintiles 2, 3 and 4 in Glasgow share similar proportional increases as their Scottish equivalent, although slightly more accentuated.

Trends in the number of applicants across deprivation levels are consistent with that of applications. A 101% increase in applicants from the most deprived areas of Glasgow is more than three times that of the least deprived areas (33%).

In 2008, there was an average of 2.5 applications per applicants, compared with 2.6 in 2015. Many students still do not use all five available applications and the growth in applicants is what carries the growth in applications rather than an increased uptake in number of applications per applicant. Average rates of application per applicant are similar across all quintiles.

**Figure 2. UCAS applications and applicants by SIMD quintile, Glasgow 2005-2015**

Since data for greater Glasgow was available from 2005, Figure 2 includes the longer time series. We can see a slightly declining trend in applications until 2008. The data then follow a similar path to the Scotland-wide data: increasing until 2010, constant between 2010 and 2013 (with the exception of quintile 1), followed by an increasing trend up until 2015. This effect is mirrored in the number of applicants; the volume of applicants from the most deprived areas of Glasgow has now overtaken that of the least deprived.

**United Kingdom**

Table 3 shows that across the UK, applications increased 24%, which is lower than the average for Scotland, by around half. In the same way as the other datasets, the overall trend in the UK is for areas with lower deprivation levels experiencing lower proportional increases in application volumes. In contrast, areas of higher deprivation such as quintile 1, which have the lowest levels of higher education participation, have seen the highest proportional increases in applications.
<table>
<thead>
<tr>
<th>POLAR3 Quintile</th>
<th>2008 Applications</th>
<th>2015 Applications</th>
<th>Absolute Change</th>
<th>Percent Change</th>
<th>2008 Applicants</th>
<th>2015 Applicants</th>
<th>Absolute Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 High</td>
<td>189960</td>
<td>285615</td>
<td>95395</td>
<td>50.4</td>
<td>80595</td>
<td>104840</td>
<td>24170</td>
<td>30.1</td>
</tr>
<tr>
<td>2</td>
<td>274985</td>
<td>380515</td>
<td>105530</td>
<td>38.4</td>
<td>113255</td>
<td>137020</td>
<td>23765</td>
<td>21.0</td>
</tr>
<tr>
<td>3</td>
<td>364905</td>
<td>473525</td>
<td>108620</td>
<td>29.8</td>
<td>145630</td>
<td>166360</td>
<td>20730</td>
<td>14.2</td>
</tr>
<tr>
<td>4</td>
<td>442885</td>
<td>532825</td>
<td>89940</td>
<td>20.3</td>
<td>174040</td>
<td>186535</td>
<td>12495</td>
<td>7.2</td>
</tr>
<tr>
<td>5 Low</td>
<td>588010</td>
<td>669975</td>
<td>81965</td>
<td>13.9</td>
<td>225140</td>
<td>232020</td>
<td>6880</td>
<td>3.1</td>
</tr>
<tr>
<td>Total</td>
<td>1892825</td>
<td>2349290</td>
<td>456465</td>
<td>24.1</td>
<td>751650</td>
<td>829050</td>
<td>77400</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Despite this, the UK on aggregate has not experienced the same extent of change as Scotland. In fact, the increase in applications for quintile 1 is only 50% compared with 110% for SIMD quintile 1 in Scotland. At the other end of the scale, applications from quintile 5 increased only 14% compared with 31% in Scotland. Overall, the UK has had an increase of only 10% in the number of applicants; about three times lower than Scotland. From Table 1 we can see that the absolute increase in applicants in Scotland (16280) forms a substantial part (21%) of the 77400 increase in the number of applicants in the UK overall (see Tables 1 and 3).

The changes in applicants in the UK across deprivation levels are similar to that of Scotland, as more deprived areas have seen bigger increases. A 30% increase in applicants from the most deprived areas of the UK is ten times higher than the increase of the least deprived areas (3.1%). Yet this is still less than half of the increase of the equivalent quintile in Scotland (68.4%). For the least deprived areas, the 3.1% increase across the UK is also small compared with 11.5% in Scotland. However, since this is a comparison of total number of applicants and applications (rather than a rate of applicants per population of young people), it is not possible to say with these data whether young people in Scotland are more likely to apply to higher education than in the rest of UK.

An average of 2.5 applications per applicant was made across the UK compared to a slightly higher 2.8 in 2015, consistent with the Scotland-wide and Glasgow data.

While there has been an overall increase in applicants and applications between 2008 and 2015, Figure 5 illustrates a notable decline in 2011-2012, in contrast to Scotland where there was no significant decline. After 2012 applicants and applications start increasing, but by 2015 both numbers had still not reached their 2011 levels.
Analysis

This initial analysis of the data reveals that applications in Scotland appear unaffected by the tuition fee increase in England in 2012, which almost trebled fees. When comparing 2011 and 2012 application volumes in Figures 1, 2 and 3, we see a distinct decline in the UK-wide applications but fairly constant trends in Scotland; applications from deprived quintiles here even increased. The same contrast can be seen comparing applicant volumes for these years.

Another significant difference is the scale of proportional change. Average increases in applications in Scotland are around double that of the UK average and around three to five times greater for applicants. It is possible that the different deprivation indicators used account for some of the variation – the SIMD includes multiple dimensions of deprivation, whereas POLAR3 simply ranks areas according to rate of higher education entry among young people.

Since the trend for applications and applicants in Glasgow was declining until 2008, then subsequently increased, it could be inferred that the recession had an effect on applying to higher education. The recession caused high unemployment among young people, so it seems intuitive that faced with less job opportunities, but accessible government funding for higher education, more young people looked to higher education as an alternative.

Young people are also more likely to live in areas of higher deprivation so the substantial increases in applicant and application volumes from the deprived quintiles could be related to recession induced youth unemployment. Glasgow has a high number of deprived areas compared to other parts of the UK, which would help explain the relatively higher proportional increases in applications from deprived quintiles.

Since applicant volumes have increased across the UK, it could be assumed that university places are becoming increasingly competitive. However, average rates of applications per
applicant have changed little in the time period. One may reasonably expect this to have increased, given that there are five applications available on the one form and it costs no extra to make use of these. Many factors could influence this, however. For example, the cost of living away from home may cause some applicants to apply only for higher education places locally, limiting the number of applications to one or two. Low grades could limit the amount of available options to an applicant. In addition, it is likely that given that there is a separate cost for one application and another for up to five, that many people make either one or five applications.