

# Commissioner for Fair Access

## Discussion paper: Access to postgraduate study: representation and destinations

*This is one of a number of discussion papers that will be published on the [Commissioner for Fair Access website](#) on key issues relating to fair access. The aim is to bridge the gap between detailed research (where it exists), which is often only accessible to experts, and the wider public conversation, especially in political circles and the media. The hope is that these papers will contribute to, and stimulate, that conversation by presenting data and evidence as accessibly and objectively as possible. Each paper will also include a commentary section by the Commissioner.*

### Summary of key points:

- Representation of full-time entrants from deprived areas (SIMD20) is lower at postgraduate level than first degree level. This reflects the lower progression rates from first degrees to postgraduate degrees among leavers from these areas.
- Differences in progression rates between students from the least and most deprived areas can be accounted for by differences in first degree outcomes, subject studied and institution attended between these groups.
- Differences in leaver destinations between SIMD20 leavers and other leavers at postgraduate level are starker than those observed at first degree level and persist when subject studied, institution attended and qualification type are accounted for.

## Background

The Commission on Widening Access (CoWA) focused its efforts on “the core provision of higher education (i.e. full-time first degree study)” but acknowledged regret for not having the time to look further at other areas, such as “outcomes for disadvantaged learners following graduation, including access to postgraduate study”. The Commission’s [final report](#) also recommended:

*The Commissioner for Fair Access should... consider what further work is required to support equal outcomes after study for those from disadvantaged backgrounds.*

This paper is part of the programme of work being undertaken to address this recommendation and focuses on Scottish domiciled students undertaking postgraduate study at Scottish Higher Education Institutions (HEIs). In some professions, postgraduate qualifications may neither be required, nor be the typical route into a career. However, inequality of access to postgraduate provision may lead to sizeable access issues in certain professions, such as the legal profession,

which typically require a postgraduate certification. Postgraduate study<sup>1</sup>, as considered in this paper, includes study leading to higher degrees, diplomas and certificates, and generally requires a first degree upon entry. This paper aims to answer, from an analytical perspective, the following questions:

- Are students from deprived areas underrepresented in postgraduate study and if so, to what extent is this linked to other factors, such as subject studied, that have an effect on whether a graduate progresses from first degree to postgraduate study?
- Are postgraduate leavers from deprived areas less likely than other students to find a professional level job and if so, is this true when accounting for institution attended, subject studied and qualification type?

(The 20% most) deprived areas are identified throughout by the Scottish Index of Multiple Deprivation<sup>2</sup> (SIMD).

### Representation in postgraduate study

Entry to postgraduate study is, in all but exceptional circumstances, restricted to learners who already hold a first degree. Therefore, if progression rates from first degree to postgraduate did not vary between students from different SIMD quintiles, we would expect the representation of different groups in postgraduate study to mirror the patterns observed at first degree level.

Figure 1 shows the SIMD quintile distribution of Scottish domiciled full-time students entering first and postgraduate degrees in 2017/18. Students from the most deprived areas (SIMD Q1) comprised a lower percentage of the postgraduate entrant population (12.5%) than they did in first degree study (15.6%), whereas those from the least deprived areas (SIMD Q5) had a higher representation in postgraduate study (30.7%) relative to first degree study (28.2%). It should be noted, however, that the figure for SIMD Q1 full-time first degree entrants has increased over recent years (from 13.7% in 2013/14<sup>3</sup> to 15.6% in 2017/18), amid efforts in response to CoWA's recommendations.

Inequality of access to undergraduate study effectively acts as a barrier to postgraduate study. We can use progression rates from first degree to postgraduate study to improve our understanding of the underrepresentation observed at postgraduate level. In particular, this allows us to consider how earlier factors in the university career of a student affect whether they progress directly to postgraduate study, and how this interacts with deprivation. This is much more difficult to do using postgraduate entrant data, since this same data is not available for those who are not undertaking postgraduate study.

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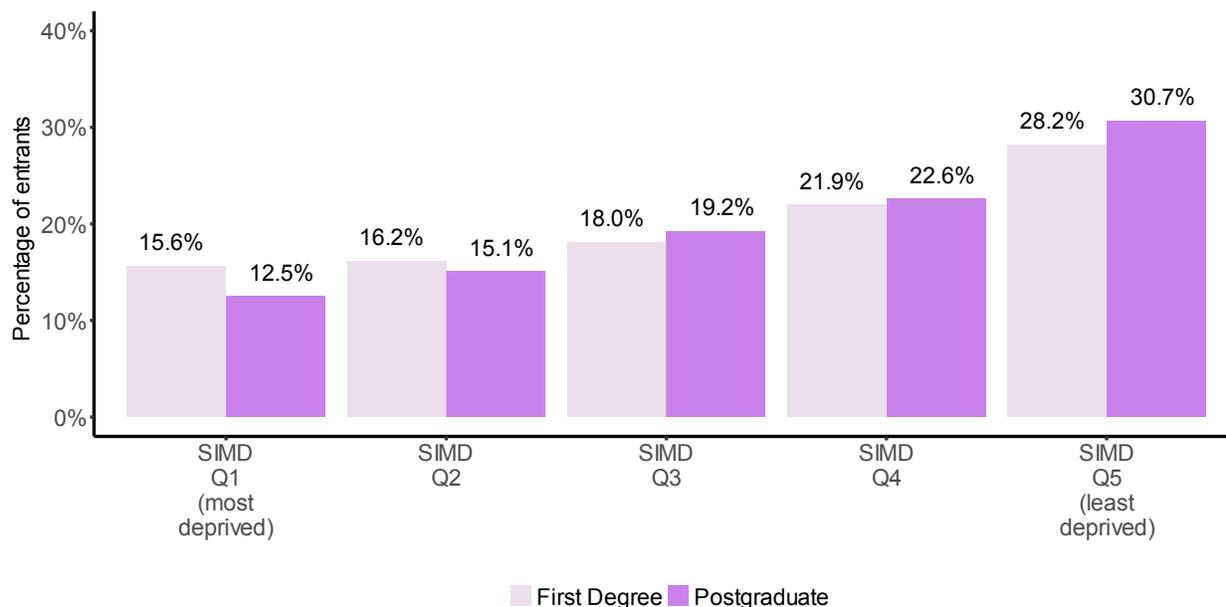
<sup>1</sup> <https://www.hesa.ac.uk/collection/c17051/derived/xlev501>

<sup>2</sup> The Scottish Index of Multiple Deprivation is an official tool used to identify the relative deprivation levels of areas in Scotland. CoWA defined entrants from deprived backgrounds/the most deprived areas as entrants from the bottom 20% of areas according to this measure, i.e. 'SIMD20', 'SIMD quintile 1', 'SIMD Q1' or 'Q1' areas.

<sup>3</sup> As reported in [HESA Student Data](#)

**Figure 1: Percentage of full-time entrants in each SIMD quintile, by level of study**

Source: HESA Student data 2017/18



**Key points:**

- Representation of students from the most deprived areas is lower in postgraduate study (12.5%) than it is in first degree study (15.6%) among full-time entrants.

### Progression from first degree to postgraduate study

Progression analysis is carried out using four years of data (2013/14 to 2016/17) from the Higher Education Statistics Agency (HESA) Destination of Leavers from Higher Education (DLHE) survey. First degree leavers that responded to the DLHE will be referred to as (first degree) graduates throughout this analysis. Previously<sup>4</sup>, graduates were asked to complete the survey six months after leaving university<sup>5</sup>. Progression rates to postgraduate study are estimated using the percentage of Scottish domiciled first degree graduates that were in full-time study, part-time study, or who were 'primarily studying and also in work' (excluding those who were in further study but aiming for a first degree or not aiming for a formal qualification<sup>6</sup>) six months after graduation. Graduates that were not considered as progressing may have been in any of a number of destinations including: full-time work, part-time work and unemployment.

<sup>4</sup> The DLHE was discontinued by HESA following the 2016/17 leaver cohort and has been replaced by the Graduate Outcomes survey. The Graduate Outcomes survey collects information on leavers around 15 months after they complete their studies.

<sup>5</sup> The DLHE [response rate](#) among UK-domiciled undergraduate qualifiers was 79% in 2016/17.

<sup>6</sup> As recorded [here](#), to give a more appropriate proxy for postgraduate study. These figures may still include a small number of students studying qualifications outwith HEIs, and includes those undertaking postgraduate qualifications in HEIs outside of Scotland.

Since the DLHE is a survey of initial destinations, progression figures do not include graduates who progress to postgraduate study six months or more after graduating. Therefore, the group of graduates who did not progress (within six months) includes a number of graduates that will enter postgraduate study in future.

**Figure 2: Percentage of first degree graduates progressing to postgraduate study, by SIMD quintile**

Source: HESA DLHE data (2013/14 to 2016/17)

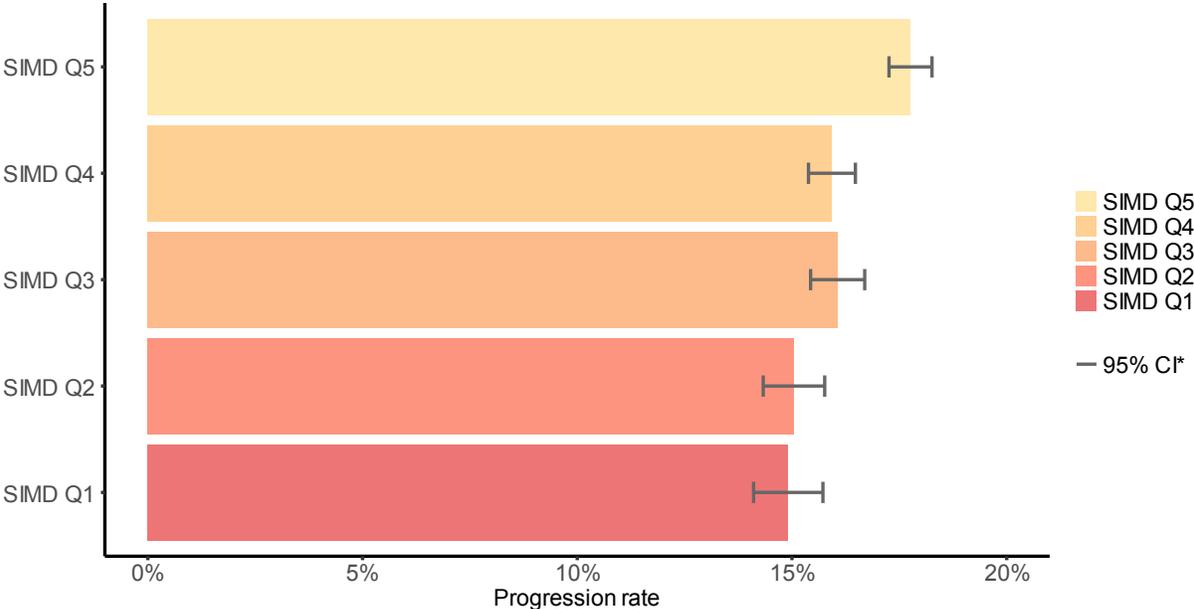


Figure 2 shows the progression rates from first degree to postgraduate study. The figure shows that graduates from SIMD Q5 areas were (statistically) significantly more likely than their peers to continue to postgraduate provision. Although progression rates were between 14.9% (SIMD Q1) and 17.8% (SIMD Q5), the actual numbers progressing varied substantially between quintiles - due to the disparities in representation at first degree level. Between 2013/14 and 2016/17, around 3.6 times more first degree graduates were estimated as progressing to postgraduate from SIMD Q5 compared to SIMD Q1.<sup>7</sup>

**Key points:**

- Overall, first degree graduates from deprived areas are less likely to progress to postgraduate study.

<sup>7</sup> Note that the deprivation-related disparity in progression appears slightly larger than the representation gap (Figure 1; around 2.5x more full-time postgraduate entrants are from SIMD Q5 than SIMD Q1). See Annex B for details.

\* 95% CI corresponds to a 95% confidence interval. See Annex A for more details.

The analysis that follows considers to what extent this relationship between deprivation and progression to postgraduate study is linked to other factors: subject studied, institution attended, and degree outcome.

### Progression: subject studied

Figure 3 shows the progression rates of first degree graduates to postgraduate study by subject studied (at first degree). Progression to postgraduate study is not necessarily the typical or desired route for a first degree leaver – particularly in certain career tracks.<sup>8</sup> This means progression rates vary substantially by subject area. Qualifiers in subjects such as Medicine and Dentistry, Veterinary Science and Education are much less likely to continue into postgraduate study. Vocations in these subject areas tend to provide continued training outwith Higher Education institutions. On the other hand, other subject areas such as Physical Sciences and Mathematics have high rates of progression, 37% and 30% respectively. First degree Law graduates have the highest progression rate among subject areas (57%), likely since postgraduate legal provision - which is typically required to complete legal training<sup>9</sup> - is undertaken in universities.

To explore how subject and SIMD interact in progression, Figure 4 shows the subject distribution of first degree graduates by SIMD quintile (Q1/Q5), ordered by subject progression rate as in Figure 3. Graduates from Q5 areas were relatively much more likely to be studying Law or Physical Sciences, among other subjects with the highest progression rates (Figure 3). To illustrate this, among graduates that progressed to postgraduate study, 32% of all those from Q5 areas, and 20% of those from Q1 areas were from these two subjects. On the other hand, graduates from Q1 areas were relatively much more likely to be studying Subjects Allied to Medicine or IT – both subjects with relatively low progression rates (5% and 10%, respectively). These observations suggest that subject studied is partially driving differences in progression between those from Q1 and Q5 areas. Despite this, progression rates still vary substantially by SIMD for a few subjects. In Law, a subject with a relatively low number of first degree graduates from Q1 areas in the first instance, 50% of first degree graduates from SIMD Q1 areas progressed to postgraduate study compared to 61% of Q5 graduates.

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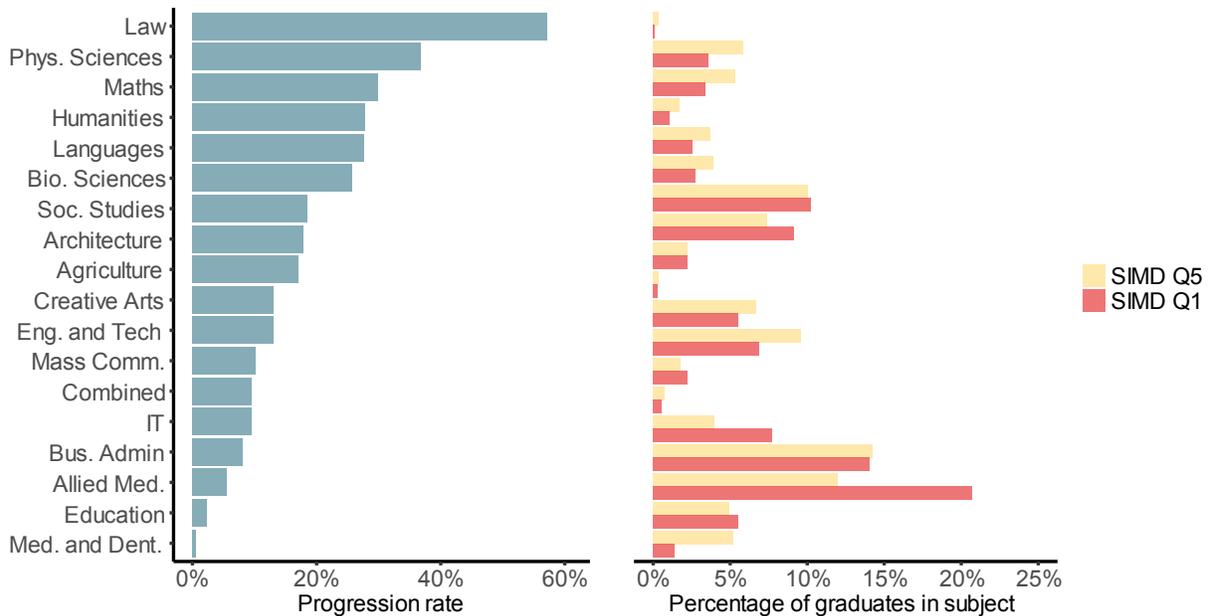
<sup>8</sup> Graduates from Veterinary Sciences have been excluded for this reason, since no graduates from this subject that responded to the DLHE during this time period continued to postgraduate study.

<sup>9</sup> According to The Scottish Parliament Justice Committee report ‘[Training the next generation of lawyers: professional legal education in Scotland](#)’

**Figure 3 (left): Percentage of first degree graduates progressing to postgraduate study, by subject**

**Figure 4 (right): Subject distribution of first degree graduates, by SIMD quintile (Q1/Q5)**

Source: HESA DLHE data (2013/14 to 2016/17)



**Key points:**

- Subject studied appears to be strongly linked to the SIMD inequality in progression rates. Graduates from deprived areas are less likely to be studying subjects with the highest progression rates and are concentrated in subjects where graduates tend not to progress to postgraduate study.
- However, a small SIMD Q5 ‘premium’ still exists in progression when accounting for subject alone. In certain subjects such as Law, where around 6 times as many SIMD Q5 than SIMD Q1 first degree graduates progressed, differences in progression remain between graduates from the 20% least and 20% most deprived areas. This premium can be accounted for by the institutions typically attended and degree outcomes of Q5 students.
- If SIMD Q1 graduates were distributed in the same subjects as SIMD Q5 graduates, based on their subject progression rates the overall progression rate for SIMD Q1 graduates would be 17.1% (an increase from 14.9% but still slightly lower than the SIMD Q5 rate of 17.8%).

### Progression: institution attended

Data is presented below by institution type<sup>10</sup>, rather than for individual institutions, for analytical purposes and to allow direct comparisons with previous discussion papers. Moreover, the numbers progressing from particular institutions may be skewed by subjects offered and are in most cases too small to allow for meaningful analysis by SIMD breakdown.

Figure 5 shows the percentage of first degree graduates progressing to postgraduate study by SIMD quintile (Q1/Q5) and institution type (at first degree). Graduates from Ancient universities were markedly more likely to continue to postgraduate study, with over a quarter of graduates continuing their study. On the other hand, Post-92 graduates were less than half as likely as graduates from Ancient universities to progress to postgraduate study, regardless of socio-economic background. Substantially less stark patterns in progression exist between those from the least and most deprived areas once institution type is taken into account.

**Figure 5: Percentage of first degree graduates progressing to postgraduate study, by institution type and SIMD quintile (Q1/Q5)**

Source: HESA DLHE data (2013/14 to 2016/17)

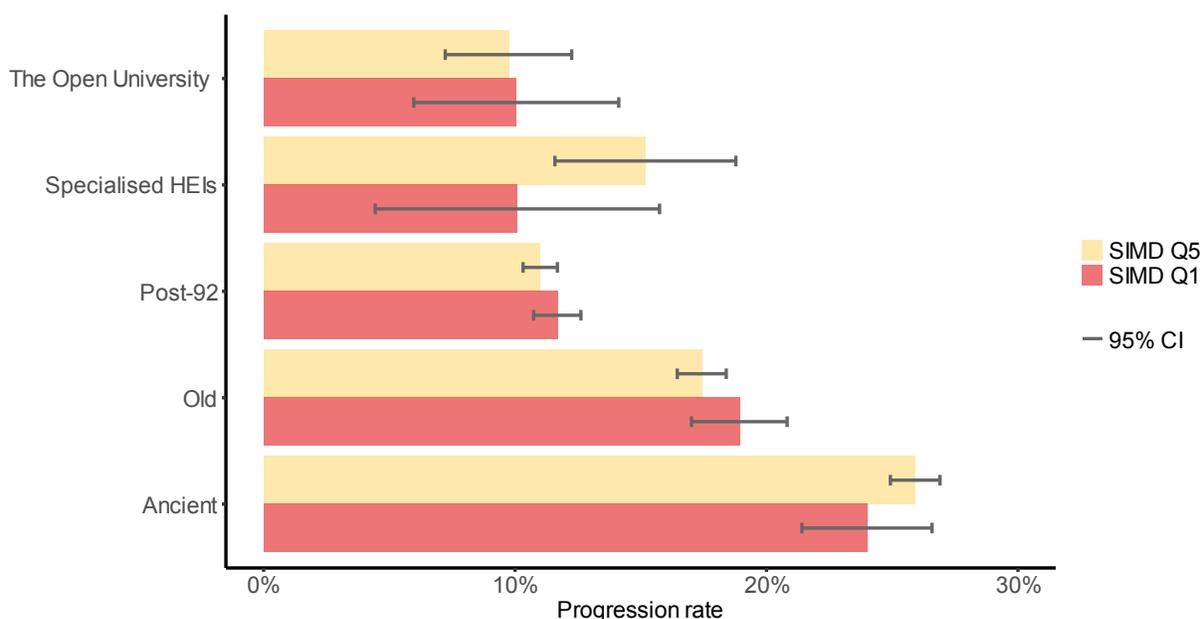


Chart 1 in the Commissioner for Fair Access discussion paper on ‘Retention, outcomes and destinations’ showed that students from SIMD Q1 were relatively more likely to attend Post-92 institutions than Ancient universities. Indeed, between 2013/14 and 2016/17, 60% of SIMD Q1 graduates who responded to the DLHE were at Post-92 institutions and 14% were at Ancient universities, compared to 36% and 34% for SIMD Q5 graduates respectively. This suggests that the overall disparity in progression between first degree graduates from the most and least deprived areas is linked to the fact that SIMD Q1 graduates are concentrated in Post-92 institutions.

<sup>10</sup> Ancient (Aberdeen, Edinburgh, Glasgow, St Andrews); Old (Dundee, Heriot-Watt, Stirling, Strathclyde); Post-92 (Abertay, QMU, GCU, Edinburgh Napier, UWS, RGU, UHI); Specialised (SRUC, RCS, GSA); The Open University.

Key points:

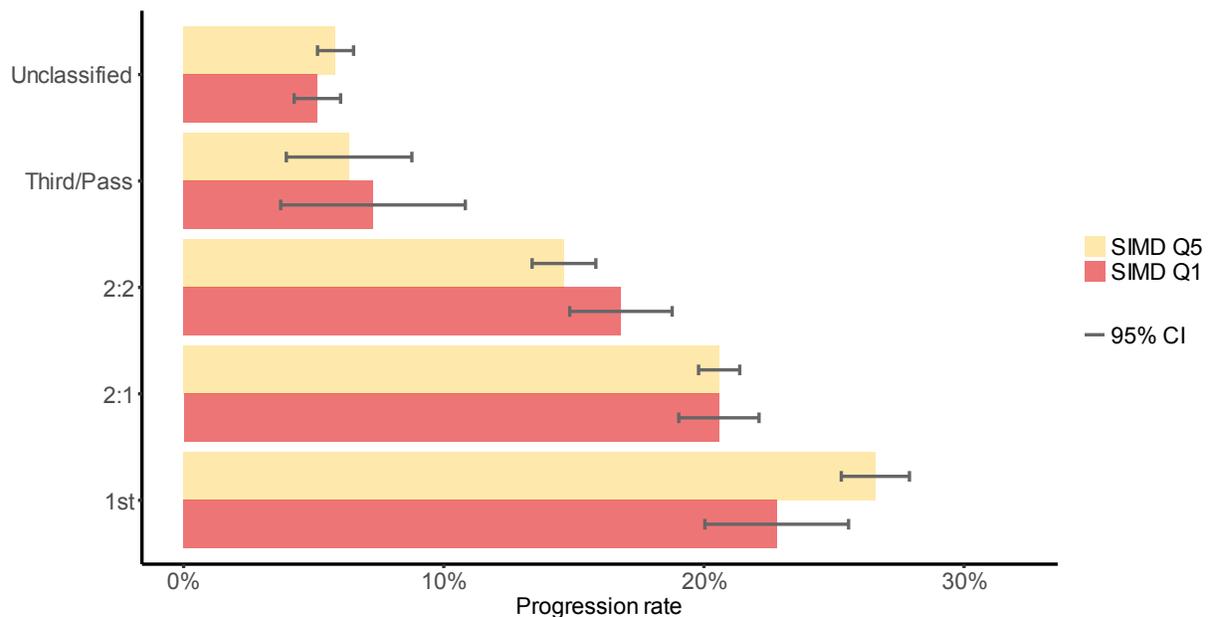
- Institution attended contributes a large extent of the SIMD-related inequality when it is solely accounted for. First degree graduates from the most deprived areas are four times more likely to be at Post-92 institutions than Ancient universities, and progression rates to postgraduate study are relatively low among Post 92 graduates regardless of SIMD quintile.
- When accounting for institution attended alone, the SIMD effect on progression is no longer statistically significant. However, first degree graduates from the 20% most deprived areas have been historically underrepresented in Ancient universities – in which graduates are more likely to progress to postgraduate study - making up 6% of graduates from these institutions between 2013/14 and 2016/17.
- If SIMD Q1 graduates were distributed in the same institution types as SIMD Q5 graduates, based on their institution type progression rates the SIMD Q1 overall progression rate would be 17.7% (an increase from 14.9% and not considerably less than the SIMD Q5 rate of 17.8%).

Progression: degree outcome

Figure 6 shows the percentage of first degree graduates who progressed to postgraduate study by SIMD quintile (Q1/Q5) and first degree outcome. It is evident that graduates with higher classifications are generally more likely to progress to postgraduate study. Moreover, the figure highlights relatively large differences that exist between students achieving a first class degree: those from Q1 areas progressed at a lower rate than those from Q5 areas (23% and 27% respectively).

**Figure 6: Percentage of first degree graduates progressing to postgraduate study, by degree outcome and SIMD quintile (Q1/Q5)**

Source: HESA DLHE data (2013/14 to 2016/17)



In the Commissioner for Fair Access discussion paper on ‘[Retention, outcomes and destinations](#)’, it was shown that students from SIMD Q1 areas are much more likely to obtain an unclassified degree, and much less likely to obtain a 2:1 or above. This suggests that the progression rates by SIMD quintile shown in Figure 2 are related to degree outcomes obtained: students with higher degree outcomes are more likely to progress to postgraduate study and students from Q1 areas are less likely to obtain higher degree outcomes than those from Q5 areas.

Key points:

- Degree class alone accounts for some, but not all, of the SIMD-related inequality in progression. Graduates from deprived areas are less likely to obtain higher degree outcomes, for which postgraduate progression rates are highest. However, among those achieving the highest degree outcome (First class), students from Q1 areas are still less likely to progress to postgraduate study. This is likely due to the subjects typically studied and institutions typically attended by Q1 graduates.
- If SIMD Q1 graduates had the same degree outcome distribution as SIMD Q5 graduates, based on their degree outcome progression rates the overall SIMD Q1 progression rate would be 17.2% (an increase from 14.9% but still lower than the SIMD Q5 rate of 17.8%).

### Summary of progression analysis

There are considerable differences in progression rates between those attending different institutions, studying different subjects and by degree outcome obtained. Analysis suggests that these factors are strongly linked to both SIMD and whether or not a first degree graduate progresses to postgraduate study. Those from deprived areas are less likely to attend university in the first instance; are generally less likely to study certain subjects or attend certain institutions where rates of progression to postgraduate study are high; have lower retention in first degree study; and achieve lower classifications upon qualifying.

Any of the three factors considered in the above analysis appears to constitute a great extent of the SIMD gap in progression when accounted for alone. However, when subject, institution and degree outcome are all accounted for, further analysis shows that there is no significant difference in the progression rate between those from Q1 and those from Q5. Moreover, each of these factors (subject, institution, degree outcome) still explain significant differences in progression when accounting for the other two factors. This suggests that the inequality in progression rates between SIMD Q1 and SIMD Q5 is manifested in a combination of these (and potentially other) factors.

### Postgraduate destinations

Postgraduate leavers considered in this analysis include only Scottish domiciled leavers who were active in the labour market (their primary activity was work or looking for work), six months after leaving university as recorded in the DLHE. The percentage in professional (or

managerial) level occupations<sup>11</sup> was then measured, using the [Standard Occupation Classification 2010 \(SOC 2010\)](#) produced by the Office for National Statistics. This is a useful proxy for ‘graduate-level’ occupations, is in line with HESA and Scottish Funding Council (SFC) definitions, and follows the definition adopted in a [previous discussion paper](#). Only full-time students are considered for the destinations analysis in order to focus on employment acquired following postgraduate study (since part-time students often undertake study alongside employment). Postgraduate leavers from PGDE courses have been excluded, since the [Teacher Induction Scheme](#) guarantees a one-year teaching post in Scotland upon qualification (resulting in over 99% of PGDE leavers in a professional level job six months after graduation).

**Figure 7: Percentage of full-time leavers in professional level jobs (six months after leaving), by SIMD quintile**

Source: HESA DLHE data (2013/14 to 2016/17)

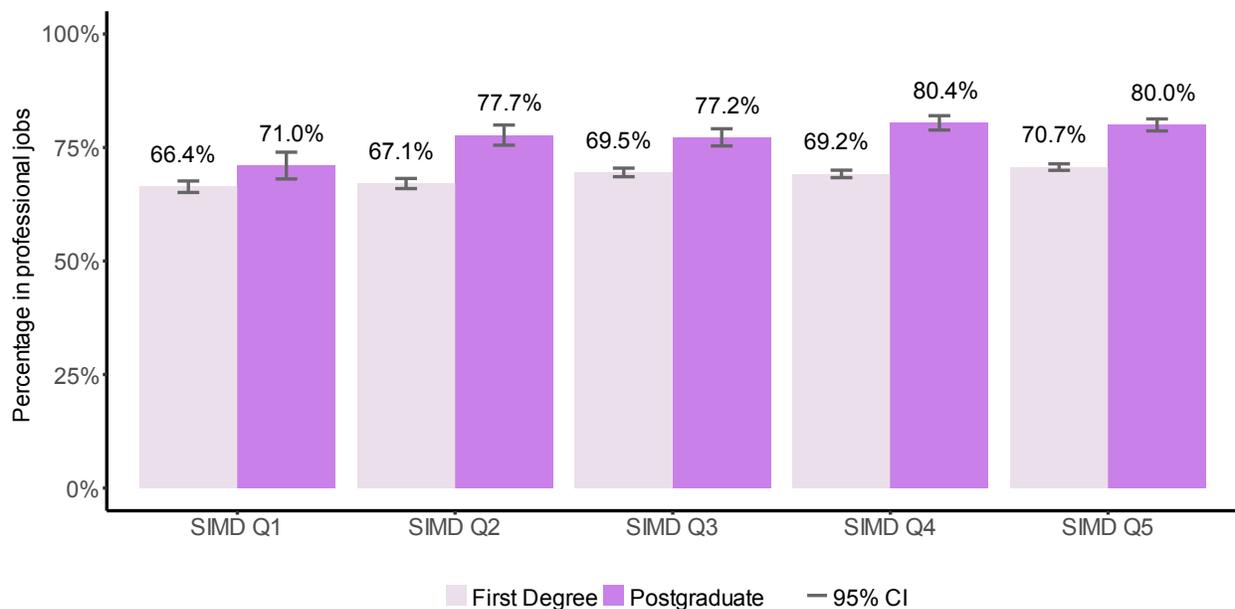


Figure 7 shows the percentage of full-time leavers in professional or managerial level jobs by SIMD quintile<sup>12</sup> and level of study<sup>13</sup>. Patterns across quintiles were generally similar at postgraduate and first degree level<sup>14</sup>, but the disparity between Q1 and other quintiles was more stark among postgraduate leavers. Postgraduate leavers from SIMD Q1 areas were less likely to be in professional roles than leavers from other quintiles (over 6 percentage points less

<sup>11</sup> Including those coded as 1 (Managers, directors and senior officials), 2 (Professional occupations), and 3 (Associate professional and technical occupations)

<sup>12</sup> Note that the current home postcode on the postgraduate DLHE record was used for the purposes of SIMD analysis.

<sup>13</sup> First degree leavers include those on undergraduate teacher training, which in some cases will be covered by the Teacher Induction Scheme.

<sup>14</sup> Comparisons between first degree and postgraduate leavers and the likelihood of obtaining a professional job should be made with care. First degree graduates that progress to postgraduate study typically have higher attainment and therefore the difference cannot be directly attributed solely to the attainment of a postgraduate qualification.

than leavers from Q2 and Q3, and by around 9 percentage points less than leavers from Q4 and Q5).

**Key points:**

- Postgraduate leavers from the most deprived areas were less likely to be in professional or managerial jobs, with 71.0% of full-time leavers from SIMD Q1 obtaining these jobs, compared to 80.0% of those from SIMD Q5 between 2013/14 and 2016/17.

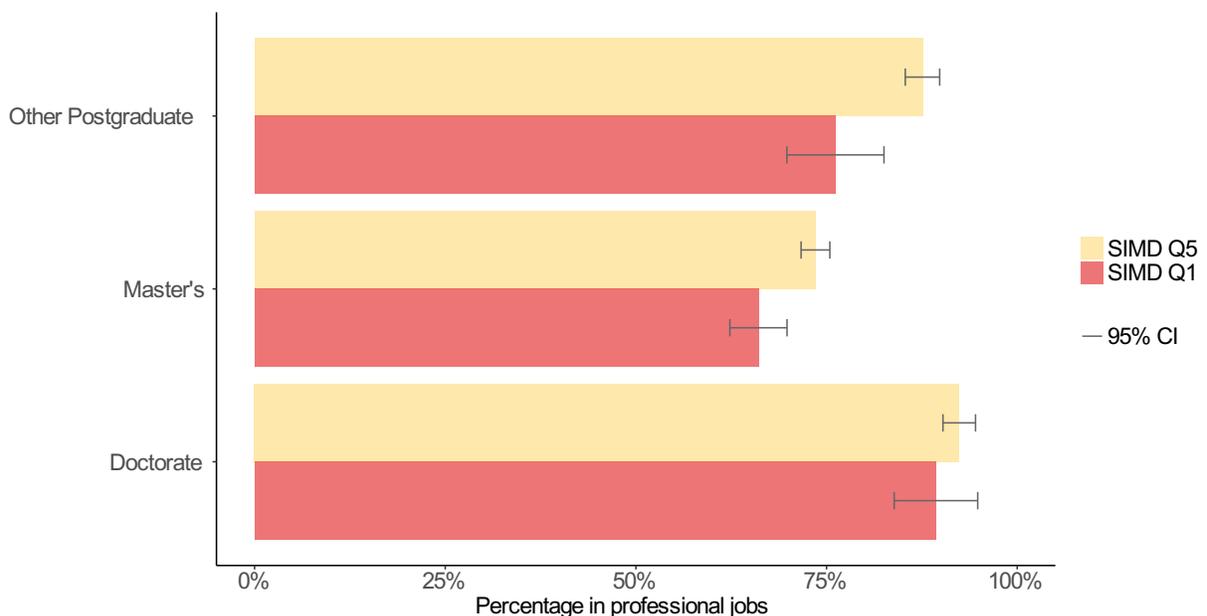
The analysis that follows considers to what extent this relationship between deprivation and postgraduate destination is associated with other factors: qualification type, subject studied and institution attended.

**Destinations: qualification type**

Figure 8 shows the percentage of full-time postgraduate leavers obtaining professional or managerial level jobs by SIMD quintile and qualification type (Doctorate, Master’s, or other postgraduate – such as a diploma at postgraduate level). A (statistically) significantly lower percentage of leavers from SIMD Q1 areas had professional or managerial level jobs among Masters and other postgraduate leavers. The percentage was also lower for SIMD Q1 leavers from Doctorate degrees, although the actual number of students from these areas in Doctorates was low. Moreover, postgraduate leavers from SIMD Q1 were relatively more likely to be on Master’s degrees (68% of SIMD Q1 leavers, compared to 60% of SIMD Q5 leavers).

**Figure 8: Percentage of full-time postgraduate leavers in professional level jobs (six months after leaving university), by qualification type and SIMD quintile (Q1/Q5)**

Source: HESA DLHE data (2013/14 to 2016/17)



#### Key points:

- Whether or not a postgraduate leaver obtains a professional level job is linked to the type of qualification obtained. Overall, leavers of Doctorate degrees are more likely to obtain a professional level role than leavers of Master's programmes.
- Differences in employment outcomes between SIMD quintiles are still statistically significant when accounting for qualification type e.g. Master's leavers from SIMD Q5 are still more likely to obtain a professional role than Master's leavers from SIMD Q1.
- However, the SIMD-related disparity in postgraduate destinations may be partially explained by qualification type. SIMD Q1 leavers were slightly more likely to have been in Master's programmes, for which a smaller proportion of leavers enter a professional level role.

#### Destinations: subject studied

Figure 9 shows the percentage of full-time postgraduate leavers obtaining professional or managerial level jobs by subject.<sup>15</sup> The destination of a postgraduate leaver varies greatly by subject studied – although not to the same extent as postgraduate progression rates - with 89% of postgraduates in Medicine and Dentistry entering a professional role compared to 62% of Humanities postgraduate leavers.

Figure 10 shows the subject distribution of full-time leavers of postgraduate study by SIMD quintile, with subjects ordered as in Figure 9. The distributions for SIMD Q1 and SIMD Q5 leavers are generally similar although some differences exist – e.g. Law, which had relatively few Q1 postgraduate leavers, and Social Studies, which had a relatively high proportion of Q1 leavers in this subject, compared to Q5 leavers. However, overall there appears to be only a weak relationship between SIMD Q1 representation in subjects and the destinations of leavers in these subjects. This suggests that the subject studied by a postgraduate leaver is not strongly linked to the difference in employment outcomes of leavers from SIMD Q1 and Q5.

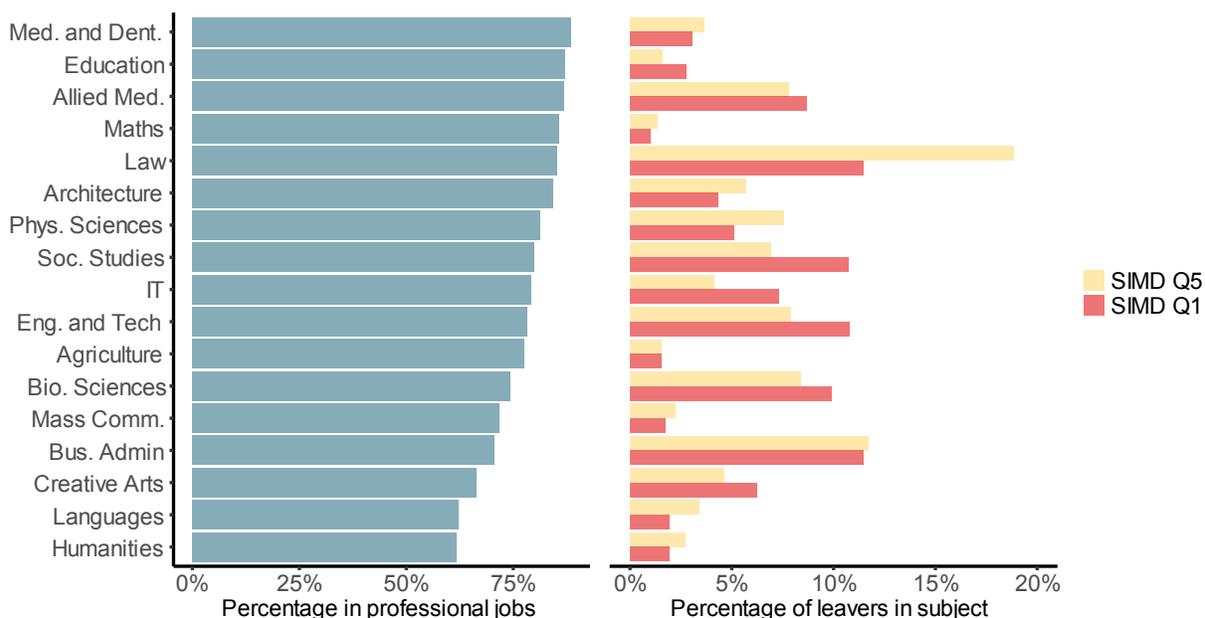
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<sup>15</sup> Veterinary Sciences and Combined subject areas were excluded, due to the absence of postgraduate leavers from these subject areas recorded in the DLHE during the time period analysed.

**Figure 9 (left): Percentage of full-time postgraduate leavers in professional level jobs (six months after leaving university), by subject**

**Figure 10 (right): Subject distribution of full-time postgraduate leavers, by SIMD quintile (Q1/Q5)**

Source: HESA DLHE data (2013/14 to 2016/17)



**Key points:**

- Whether or not a postgraduate leaver obtains a professional level job is weakly associated with subject studied, but analysis suggests this does not account for the difference in outcomes between SIMD quintiles.

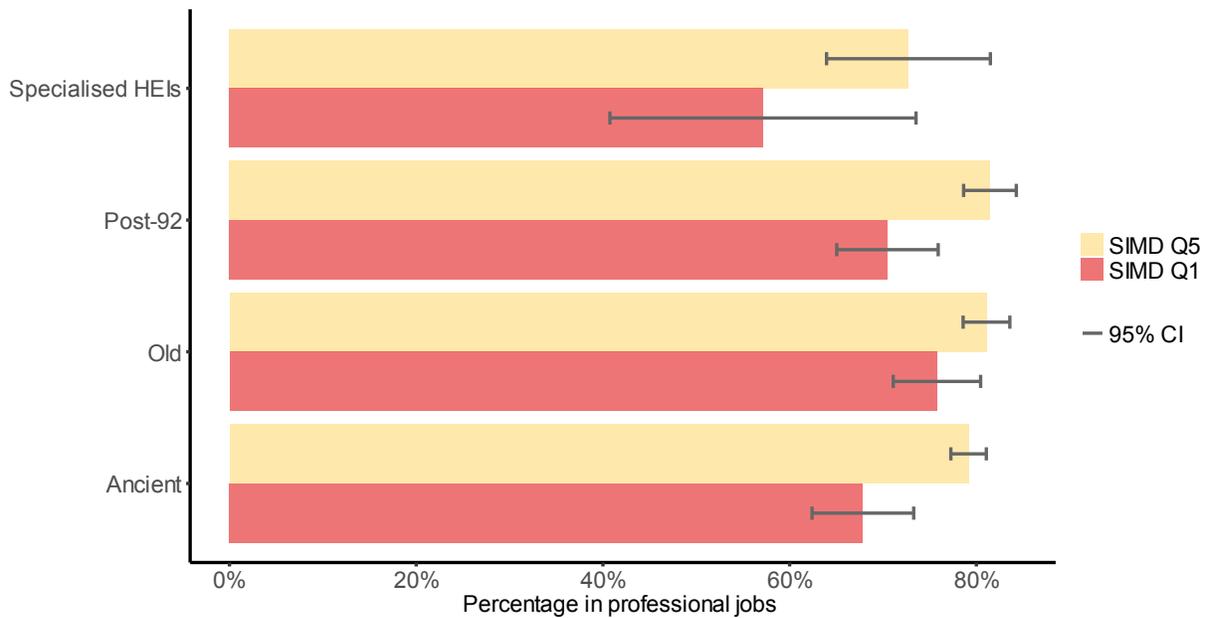
**Destinations: institution type**

Figure 11 shows the percentage of full-time postgraduate leavers obtaining professional or managerial level jobs by institution type<sup>16</sup> and SIMD quintile. The deprivation-related gap is (statistically) significantly wide at Post-92 and Ancient institutions (11 percentage points), with leavers from Q5 areas more likely to obtain a professional role than their peers from Q1 areas. Unlike in first degree study, however, this disparity is not likely to be heavily compounded by a larger proportion of postgraduate leavers from SIMD Q1 areas attending Post-92 institutions, noting that there are no striking disparities in outcomes between institution types.

<sup>16</sup> The Open University is not included in this analysis due to the absence of full-time postgraduate leavers from this institution recorded in the DLHE during the time period analysed.

**Figure 11: Percentage of full-time postgraduate leavers in professional level jobs (six months after leaving university), by institution type and SIMD quintile (Q1/Q5)**

Source: HESA DLHE data (2013/14 to 2016/17)



**Key points:**

- Differences in postgraduate destinations still exist when accounting for institution type, in particular among students who attended Post-92 or Ancient institutions. Moreover, the difference in destinations between institution types is not substantive when only SIMD is accounted for. This suggests that institution type does not explain the difference in destinations between Q1 and Q5.

**Summary of destinations analysis**

This analysis suggests SIMD continues to have a significant effect on postgraduate destination, even when other important factors are taken into account. SIMD-related gaps were still stark when qualification type alone was accounted for. Unlike in postgraduate progression, there does not appear to be a particularly clear relationship between subjects where SIMD Q1 students have relatively better postgraduate representation and subjects with a high rate of professional or managerial job outcomes. Moreover, leavers from SIMD Q1 were less likely to obtain a professional level job, even when accounting for institution type.

Further analysis shows that when accounting for all three of these factors (and any interactions between them), SIMD Q1 disadvantage persists. This means that SIMD Q1 students studying the same type of degree in the same subject areas at the same institutions are still not getting the same level of job as their peers directly after leaving their postgraduate study.

## Commissioner's Commentary

No one dissents - in public at any rate - from the fair access target of achieving a level playing field in admissions to higher education by 2030. It is common ground that it is right and just that 20 per cent of entrants should come from the 20 per cent most socially deprived areas in Scotland.

But how far should that principle be pressed? Should there be a level playing field in continuation rates, in the proportion of 'good' degrees, in graduate-level or professional jobs between students from the most to the least deprived areas, as measured by the Scottish Index of Multiple Deprivation (SIMD)?

Again there is a solid consensus that fair access has to be about more than access; it is also about success. As a former Minister put it, it has to be to 'the graduation ceremony not just the freshers' fair'. No responsible person wants to set up students to fail. Of course, two, rather different, conclusions can be drawn from that common position - either we should be cautious in the first place about admitting students who may not be adequately prepared for university study; or we need to take bolder action both to support them to succeed and to challenge unjustified barriers to their success.

This discussion paper focuses on postgraduate education, where the same question arises. If we are serious about fair access, do we need to include access to postgraduate courses as well as first degrees? Once perhaps it might have been reasonable to exclude postgraduate education because for the great majority of students a first degree was the end of their university education. But this is no longer the case for a growing proportion of graduates, even though Scotland has four-year courses. Also postgraduate study is generally needed for entry into many key professions, for example law. If the aim is to promote greater social equity in access to higher education, outcomes as well as opportunities, postgraduate courses are increasingly important.

This paper offers, and analyses, the available data on postgraduate admissions. Its headline findings are:

- Students from the most socially deprived areas are significantly less likely to continue on to postgraduate courses than their most socially advantaged peers;
- The gap is explained, partly although not wholly, by the fact they are more likely to have studied subjects at first-degree level in which fewer students overall progress to postgraduate courses - although this begs the question of why they are underrepresented in higher-status subjects where postgraduate progression rates are higher;

- The gap is also explained, partly but again not wholly, by the fact that more socially deprived students are concentrated in universities with lower postgraduate progression rates - although, again, this begs the question of why they are underrepresented in more prestigious institutions, notably the ancient universities, where many more students continue on to postgraduate courses;
- Finally, even the students from more socially deprived backgrounds who do progress to postgraduate study are still significantly less likely to get professional jobs six months after leaving, which suggests that they continue to suffer perhaps silent but nevertheless powerful discrimination.

These, unsurprising but disturbing, findings suggest to me that there is a very strong case for including access to postgraduate education within the wider framework of fair access - first, because postgraduate courses are often the key to professional jobs and careers; and, secondly, because the main explanations of unequal postgraduate progression rates highlight the wider issues that affect fair access at first-degree level as well (such as the underrepresentation of more socially deprived students in more prestigious academic subjects and in higher-status universities).

Both are important in terms of producing fairer access to postgraduate education. The very important differences in the social base of the student body across universities are well known, which is why the most selective (and prestigious) universities with high rates of progression to postgraduate study have a particular responsibility to address fair access over-and-above the sector-level drive. Also early indications have shown that much of the recent increase in SIMD20 entrants has been in subjects such as business administration and subjects allied to medicine, which have low progression rates to postgraduate study. So, unless there is a more even spread of socially disadvantaged students across a range of subjects, including those with high progression rates, inequity in access to postgraduate education will persist.

So what action needs to be taken? Clearly it is important that any fair access and participation targets included in outcome agreements between universities and the Scottish Funding Council should be extended to cover entry to postgraduate courses. Perhaps Universities Scotland also needs to consider adding to its excellent work on contextual admissions and minimum entry requirements, articulation and bridging programmes a fourth strand, on fair access to postgraduate education.

More controversially, new targets - national and institutional - could be developed to measure progress towards greater equity in postgraduate admissions. National targets at the level of subjects as well as individual institutions may be a bridge-too-far. But institutions could, and should, set subject-by-subject targets for the recruitment of disadvantaged students at postgraduate as well undergraduate level.

The key must be to start a serious conversation about fair access to postgraduate education. Even if there is a level playing field for initial entrants, issues of fair access to postgraduate study will remain. The lesson is fair access never really ends - not at the undergraduate entry gate or the first-degree finishing line; not even with an equal chance of getting a good Bachelor's degree (and so a professional career); but with the same opportunity to move on to postgraduate study (and equal access to lifelong learning).

A handwritten signature in black ink that reads "Peter Scott". The script is cursive and fluid.

**Professor Sir Peter Scott**  
Commissioner for Fair Access

## Annexes

### Annex A – Confidence intervals and modelling

The error bars shown in this paper have been calculated based on approximate 95% confidence intervals. As the Destination of Leavers from Higher Education (DLHE) is a survey, a sample of the overall leaver population is collected. This means that the percentage of those progressing to postgraduate study and the percentage of those obtaining a professional role are estimates of the corresponding figures for the whole cohorts of leavers. Therefore, there is an element of uncertainty around these estimated figures, and confidence intervals allow us to understand how certain we can be that the estimates are precise.

A 95% confidence interval provides the likely extent to which an estimate may differ from the figure for the whole cohort. If two intervals do not overlap, then we can say that the difference between the groups is statistically significant (at the 95% level). For example, among Post-92 postgraduate leavers from Q1 and Q5, the confidence intervals for the percentage obtaining a professional level job do not overlap. This means we can be reasonably confident that the differences we see in the sampled respondents reflect a difference in the whole cohort of leavers. In general, where the intervals do overlap, the difference is not significant. Differences throughout have therefore generally only been commented on where the intervals clearly do not overlap. Where the sample size is small e.g. among Q1 students in Ancient universities, the interval is generally wider as we have less data to determine whether the individuals are representative of the population as a whole. This means that we are less confident in the estimate of the true figure for such groups.

The confidence interval method adopted for both progression and destinations is a Normal approximation to the Binomial distribution. For progression, the “success” parameter was taken to be those with HESA [XACTIV02](#) variable equal to 04, 05 or 06 i.e. those in full-time work, part-time work or primarily studying and also in work. For destinations, the “success” parameter was taken to be those with a [SOC 1-3](#) occupation. The analysis in this paper has not been weighted for non-response bias or design effect, and therefore the confidence intervals calculated do not incorporate such weighting. Further analysis (outwith the scope of this paper) was performed using logistic regression modelling. This modelling informed conclusions and determined whether SIMD was statistically significant in both progression and postgraduate destinations when controlling for other factors.

### Annex B – SIMD differences in representation and progression

The gap in progression between those from the least and most deprived areas appears slightly larger than the representation gap in this analysis. This may be due to various reasons, including those listed below.

- The data cover different years and therefore different cohorts of students. The representation gap shown is for *entrants* in 2017/18, whereas the progression data covers *graduates* between 2013/14 and 2016/17.

- Graduates progressing to postgraduate study are *estimated* as the percentage of Scottish domiciled first degree leavers in the DLHE survey who were in full-time study, part-time study, or who were 'primarily studying and also in work', six months after leaving university. In some cases, this may include leavers who continued study outwith a Scottish Higher Education Institution e.g. in a university abroad. Such leavers would not be included in Figure 1 for entrants to postgraduate study in Scottish HEIs.
- Response rates to the Destination of Leavers from Higher Education (DLHE) survey may vary between SIMD quintiles. While HESA publish response rates, they do not publish breakdowns by SIMD. Further analysis of the cohorts considered in this paper show that the share of graduates captured in the DLHE from SIMD Q1 is about 2 percentage points lower than we would expect from the HESA qualifiers data. The analysis in this paper has not been weighted for non-response.
- It may be the case that graduates are more likely to delay their postgraduate studies due to financial or other reasons if they are from SIMD Q1 areas.
- There is potential for relocation of graduates who were living in non-SIMD Q1 areas to SIMD Q1 areas between first degree and postgraduate study. For example, a postgraduate entrant recorded as from a SIMD Q1 area may have entered first degree study while living in a non-SIMD Q1 area but relocated to an SIMD Q1 area prior to entering postgraduate study. However, further analysis suggests that this is not common, and generally occurs less at the 'extremes' i.e. SIMD Q1 and Q5.



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Any enquiries regarding this publication should be sent to us at

The Scottish Government  
St Andrew's House  
Edinburgh  
EH1 3DG

ISBN: 978-1-78781-604-6 (web only)

Published by The Scottish Government, January 2020

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA  
PPDAS538666 (01/20)

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