

Annex F: Differences in student outcomes: further characteristics

Socio-economic background (NS-SEC)

Enquiries to official.statistics@officeforstudents.org.uk

Publication date 4 June 2020

This annex should be read alongside the report ‘Differences in student outcomes: further characteristics’ (OfS 2020.30)

Contents

Summary	1
Differences in continuation	3
Differences in degree outcomes	5
Quality framework and student populations	7

Summary

Any questions or feedback related to this publication can be sent to William Rimington at official.statistics@officeforstudents.org.uk. This includes further detail of the results of applying our data quality framework, including specific disclosure rates and inconsistency scores.

1. Socio-economic background is known to impact access to higher education.¹ There are many methods of classifying socio-economic background, including the measure used in this analysis: National Statistics socio-economic classification (NS-SEC), which assigns occupation to different socio-economic groups.²
2. Entrants in 2017-18 whose parents work in higher managerial, administrative and professional occupations had a continuation rate that was 2.0 percentage points higher than students whose parents work in intermediate occupations. Furthermore, the continuation rate of these students from higher managerial, administrative and professional backgrounds is 3.7 percentage points higher than students whose parents work in routine and manual occupations and 5.4 percentage points higher than students whose parents have never worked or are long-term unemployed.
3. For qualifiers in 2018-19, students whose parents work in higher managerial, administrative and professional occupations had a rate of achieving a first or upper-second class degree that was 5.2 percentage points higher than students whose parents work in intermediate occupations. Students whose parents work in routine and manual occupations had an attainment rate that was 8.6 percentage points lower than students whose parents work in higher managerial, administrative and professional occupations. The largest difference is for students whose parents have never worked or are long-term unemployed: their attainment rate was 21.5 percentage points lower than students from higher managerial, administrative and professional backgrounds.
4. The statistics in this annex apply to students who were under 21 when they began their qualification.
5. The statistics included in this report are raw continuation and attainment rates and we have not used weighting or statistical modelling in their calculation to account for other student characteristics that can impact the rates of students with these characteristics.
6. The rates and differences in rates rounded to 1 decimal place. Some of these characteristics apply to small populations and we have not performed significance or sensitivity analysis on

¹ See our effective practice webpage 'Low higher education participation, household income and socio-economic status' at www.officeforstudents.org.uk/advice-and-guidance/promoting-equal-opportunities/evaluation-and-effective-practice/low-higher-education-participation-household-income-and-socio-economic-status/.

² See <https://www.ons.gov.uk/methodology/classificationsandstandards/otherclassifications/thenationalstatisticsocioeconomicclassificationnssecrebasedonsoc2010>.

the raw rates included here. Small differences in rates may not represent statistically significant differences in outcomes for students with those characteristics. Also note the differences in rates were calculated using unrounded rates. As such, the value of the differences can be 0.1 percentage point higher or lower than the difference between the rounded rates included in this report.

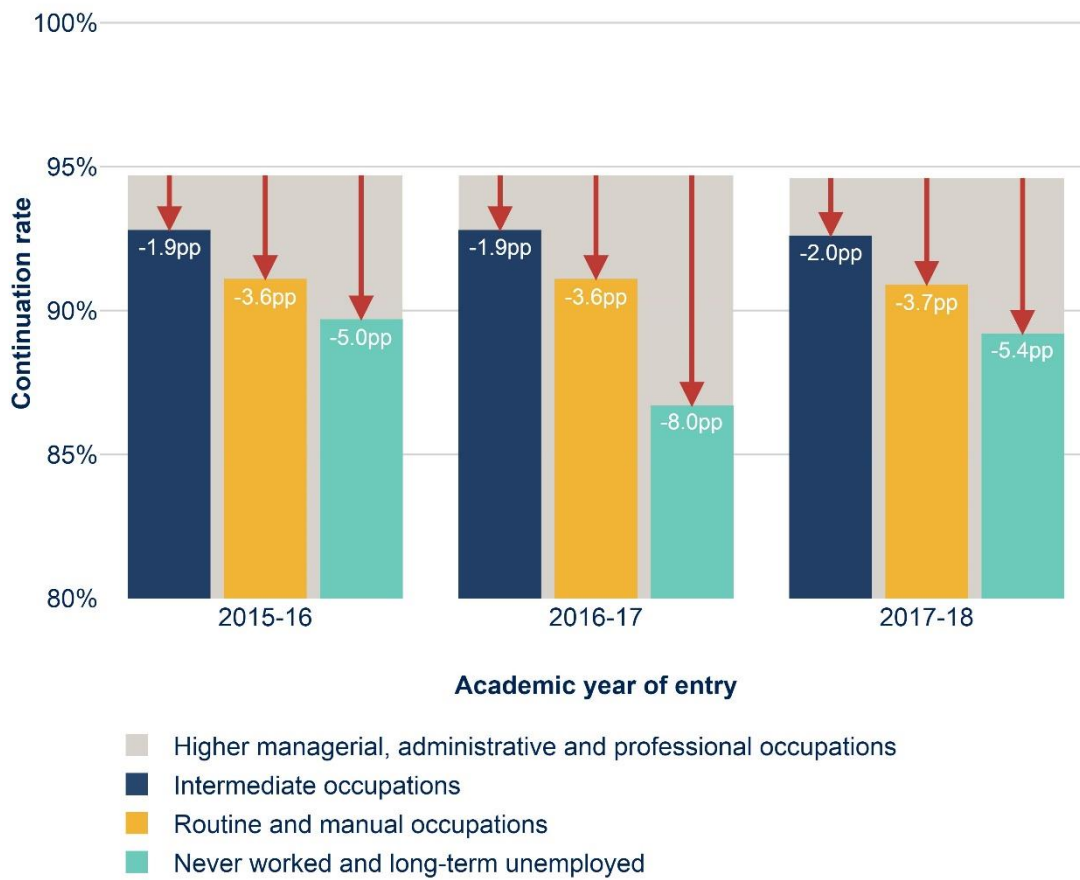
7. A lack of data prevents publication of differences in progression into highly skilled employment or further study at a higher level by socio-economic background.
8. Throughout this annex students whose parents work in higher managerial, administrative and professional occupations are referred to as being from a higher background. Students whose parents work in intermediate occupations are referred to as being from an intermediate background. Students whose parents work in routine and manual occupations are referred to as being from a manual background and students whose parents have never worked or are long-term unemployed are referred to as being from an unemployed background.

Differences in continuation

9. Socio-economic background impacts continuation in higher education; continuation rates reduce with the socio-economic classifications (see Figure F1). Students from intermediate, manual and unemployed backgrounds all have lower continuation rates than students from higher backgrounds. For full-time, UK-domiciled, undergraduate entrants in 2017-18 the continuation rate of students from an intermediate background was 2.0 percentage points lower than students from a higher background. The continuation rate of students from a manual background was 3.7 percentage points lower than those from a higher background. Students from an unemployed background had a continuation rate 5.4 percentage points lower than students from a higher background.
10. These statistics apply to UK-domiciled, full-time, undergraduate or apprenticeship students who applied via the Universities and Colleges Admissions Service (UCAS) and attended higher education providers that report data to the HESA student record. The population and measure of continuation in higher education is based on our access and participation data algorithms.³
11. Continuation rates are a measure of the proportion of entrants who either qualified, transferred to another higher education provider or continued their studies. All other students are deemed non-continuers. For full-time students this measure is based on student activity one year and 14 days after their commencement date.
12. Between 2015-16 and 2017-18 the continuation rates of students remained mostly steady, whether they were from higher backgrounds (94.7 per cent to 94.6 per cent), intermediate backgrounds (92.8 per cent to 92.6 per cent) or manual backgrounds (91.1 per cent to 90.9 per cent). However, during this time there has been a slight reduction in the continuation rates of students from unemployed backgrounds (89.7 per cent to 89.2 per cent).
13. As a result, the differences in the continuation rates of higher background students and the other socio-economic background groups have grown slightly between 2015-16 and 2017-18. For students from an intermediate background, this has increased from 1.9 percentage points to 2.0 percentage points. For students from a manual background, this has increased from 3.6 percentage points to 3.7 percentage points. For students from an unemployed background, this difference has grown from 5.0 percentage points to 5.4 percentage points. Furthermore this difference between students from higher and unemployed backgrounds was even greater for 2016-17 entrants, standing at 8.0 percentage points.

³ See our document 'Technical algorithms for institutional performance measures: Regulatory indicators, methodology and rebuild descriptions' at www.officeforstudents.org.uk/data-and-analysis/institutional-performance-measures/technical-documentation/.

Figure F1: The differences in continuation rate by socio-economic background (NS-SEC) for full-time, UK-domiciled, undergraduate students



The data used to create this chart can be found in the data file associated with this publication.⁴ Details of the student population can be found later in this annex.

⁴ Available at www.officeforstudents.org.uk/publications/differences-in-student-outcomes-further-characteristics/.

Differences in degree outcomes

14. The rate of achieving a first or upper-second class degree reduces with socio-economic classification (see Figure F2). Students from intermediate, manual and unemployed backgrounds all have lower attainment rates than students from higher backgrounds. For qualifiers in 2018-19, the attainment rate of students from an intermediate background was 5.2 percentage points lower than students from a higher background. The attainment rate of students from a manual background was 8.6 percentage points lower than students from a higher background. Students from an unemployed background had an attainment rate 21.5 percentage points lower than students from a higher background.
15. These statistics apply to UK-domiciled, full-time students who qualified with a first degree or undergraduate with postgraduate components qualification. These students applied via UCAS and attended higher education providers that report data to the HESA student record. The population and measure of attainment is based on our access and participation data algorithms.⁵
16. Attainment rates are a measure of the proportion of students awarded Level 6+ undergraduate degree qualifications (first degree or undergraduate with postgraduate components) who received a first or upper second (2:1).
17. The attainment rate of students from a higher background increased 0.6 percentage points between 2017-18 (84.1 per cent) and 2018-19 (84.7 per cent). It is important to note that the NS-SEC data is only used for 2015-16 entrants onwards. As such, the data for 2017-18 does not include students who completed their qualification in four years. Given that undergraduate with postgraduate component qualifications typically take four years to complete and have a much higher attainment rate than first degrees⁶, this increase in attainment rate between 2017-18 and 2018-19 – despite a sector-level cessation in grade inflation⁷ – will in part result from these additional students being included in the population. The rates for 2018-19 are more representative of attainment for this population of students.
18. The attainment rate of students from an intermediate background stayed the same between 2017-18 and 2018-19 (79.6 per cent). The attainment rate of students from a manual background increased slightly in this time from 76.0 per cent to 76.2 per cent. The attainment rate of students from an unemployed background dropped between 2017-18 and 2018-19, from 67.7 per cent to 63.2 per cent. As above, these differences between 2017-18 and 2018-19 will be at least in part the result of the different students included in the populations.
19. The size of these attainment gaps are not consistent between 2017-18 and 2018-19 but, as discussed above, these two years contain different student populations. The 2018-19

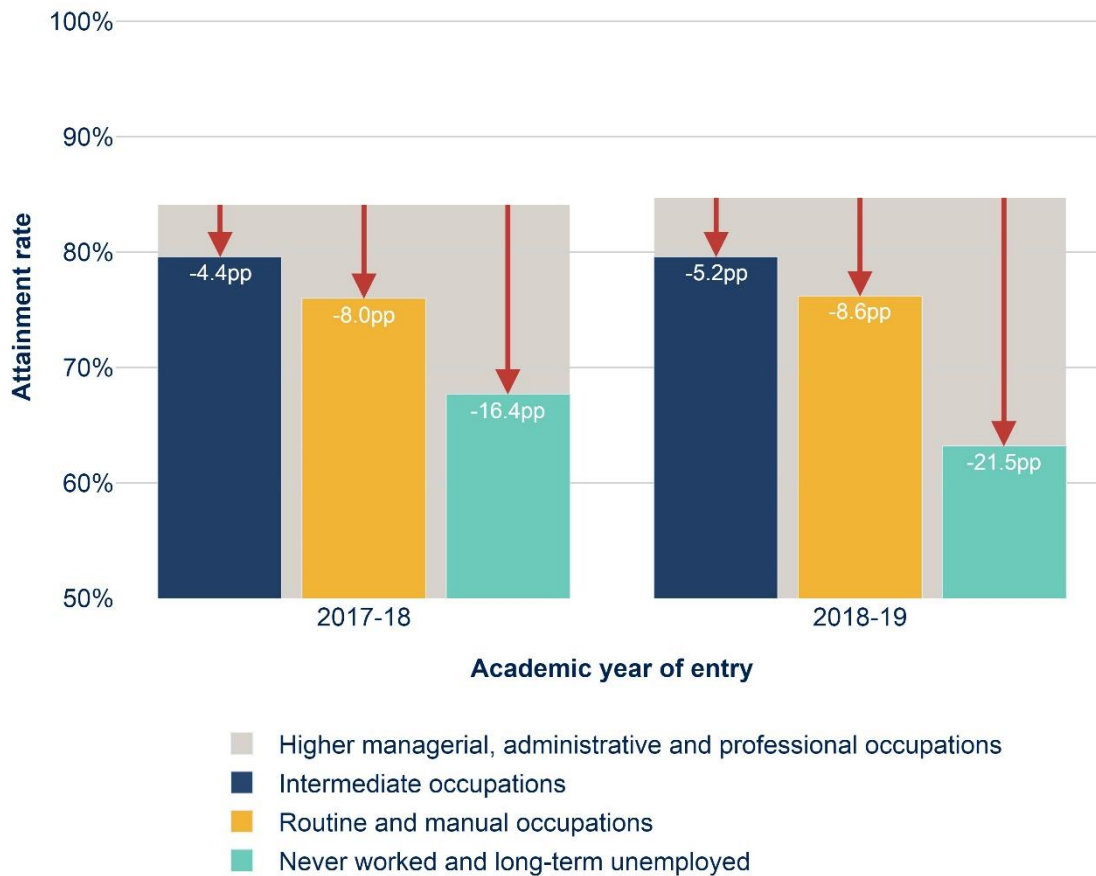
⁵ See our document 'Technical algorithms for institutional performance measures: Regulatory indicators, methodology and rebuild descriptions' at www.officeforstudents.org.uk/data-and-analysis/institutional-performance-measures/technical-documentation/.

⁶ See our access and participation data dashboard at www.officeforstudents.org.uk/data-and-analysis/access-and-participation-data-dashboard/.

⁷ See www.officeforstudents.org.uk/news-blog-and-events/press-and-media/grade-inflation-for-first-class-degrees-stalls/.

differences should be considered to be more reliable for first degree and undergraduate with postgraduate component students. Furthermore this data should not be interpreted as showing the gaps between students from higher backgrounds and non-higher backgrounds are growing. More years of data is needed to determine whether this is the case.

Figure F2: The differences in rates of achieving a first or upper-second class degree by socio-economic background (NS-SEC) for full-time, UK-domiciled, first degree and undergraduate with postgraduate components students



The data used to create this chart can be found in the data file associated with this publication.⁸ Details of the student population can be found later in this annex.

⁸ Available at www.officeforstudents.org.uk/publications/differences-in-student-outcomes-further-characteristics/.

Quality framework and student populations

20. A summary of applying our data quality framework⁹ to the NS-SEC data can be found in Table F1. Based on the criteria of the framework this data is useable for entrants from 2015-16 onwards. Though this data is available from 2002-03, the data prior to 2015-16 failed the framework.

Table F1: Summary of applying data quality framework to NS-SEC data

Framework criteria	Summary
Data source	HESA student record (SEC)
Year data collection started	2002-03
Summary of data field	The socio-economic background of the student based on NS-SEC
Student population data available for	UK-domiciled, undergraduate students
Part I – Data availability	
I.A – documentation	Well-documented
I.B – disclosure rate	Variable but available for >80% of eligible students
I.C – provider response	Reported by all eligible providers
Part II – Data quality	
II.A – identified data issues	Some historic concerns about NS-SEC data quality. ¹⁰ How this data is collected changed between 2014-15 and 2015-16; as such, data prior to 2015-16 should be treated differently to subsequent years.
II.B – reporting consistency	Inconsistency score below 2 at characteristic level since 2015-16. Mostly below 2 at category level since 2015-16.
II.C – comparisons to public	Marked differences between the student population and general population statistics published by the ONS. ¹¹ However, this is understandable as socio-economic background is known to influence access to higher education. ¹²
Outcome	Data considered useable from 2015-16 entrants onwards.

⁹ See Annex A associated with this report.

¹⁰ See https://www.hesa.ac.uk/files/pisg/UKPITG_2015_02/UKPITG_15_01.pdf.

¹¹ See the Office for National Statistics (ONS) 'Young people in five-year age band by National Statistics Socio-economic Classification, UK, April 2017 to March 2018' at <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/adhocs/008869youngpeopleinfiveyearagebandbynationalstatistics socioeconomicclassificationukapril2017tomarch2018>.

¹² See www.officeforstudents.org.uk/advice-and-guidance/promoting-equal-opportunities/evaluation-and-effective-practice/low-higher-education-participation-household-income-and-socio-economic-status/.

21. This NS-SEC data is published by HESA and further details regarding its collection can be found on their website.¹³ NS-SEC data is also available on the Education and Skills Funding Agency's Individualised Learner Record (ILR). However the ILR NS-SEC data fails the framework for all available years due to low disclosure rates and high inconsistency scores. As such this data is not included here.
22. For the purposes of this analysis, the data recorded as NS-SEC category 9 (Not classified) is set to 'Unknown'; this includes when calculating disclosure rates in the data quality framework. This category is a combination of students, 'occupations not stated or inadequately described' and 'not classifiable for other reasons'. As such it does not provide information for this investigation into differences in outcomes.
23. The NS-SEC data published by HESA is primarily collected as part of the UCAS application, though providers are encouraged to provide information for all full-time undergraduates, not just those who apply via UCAS. To ensure the consistency of data recording, the student population has been limited to only those students with a UCAS Application Scheme Code (UCASAPPID).¹⁴ We cannot know whether providers reporting NS-SEC for students who did not use UCAS are doing so using the same collection method and NS-SEC mapping that is used by UCAS.
24. The collection of the NS-SEC data differs depending on the student's entry age. For students aged 21 and over at entry it is based on their occupation prior to starting their course. For students under 21 it is based on the occupation of their parent, step-parent or guardian who earns the most. If their parent or guardian is retired or unemployed, this is based on their most recent occupation. For this reason we have limited the student population to those under 21 at the start of their course.
25. To allow us to more effectively communicate sector-level trends, the eight NS-SEC categories have been collapsed in this analysis into four groups using the method recommended by the ONS.¹⁵ However continuation and attainment rates by the eight different categories can be found in the datafile associated with this release. In addition to this grouping being recommended by the ONS, for the most part our investigations of continuation and attainment rates also support the use of this collapsing method.
26. Continuation and attainment populations were based on those included in our access and participation data dashboard. Details of these populations can be found in the document 'Technical algorithms for institutional performance measures: Regulatory indicators, methodology and rebuild descriptions'.¹⁶ Where restrictions exist in the collection of this data beyond those associated with the access and participation populations then these were also

¹³ See <https://www.hesa.ac.uk/collection/c19051/a/sec>.

¹⁴ See <https://www.hesa.ac.uk/collection/c19051/a/ucasappid>.

¹⁵ See <https://www.ons.gov.uk/methodology/classificationsandstandards/otherclassifications/thenationalstatisticsocioeconomicclassificationnssecrebasedonsoc2010#classes-and-collapses>.

¹⁶ See our document 'Technical algorithms for institutional performance measures: Regulatory indicators, methodology and rebuild descriptions' at www.officeforstudents.org.uk/data-and-analysis/institutional-performance-measures/technical-documentation/.

applied. Applying the access and participation populations results in us excluding NS-SEC data where it does not belong in those populations. This data is collected for students from the Isle of Mann and the Channel islands; however, for consistency with the OfS definition of UK-domiciled, these students are not included in our calculations.

27. The quality framework is used to help determine an academic year of entrance for which this data is deemed to be acceptable quality. As such the outcome populations are limited to those students who began their studies on or after the academic year chosen. This ensures that we only use NS-SEC data that was collected in years that passed the framework.
28. The first two years of NS-SEC data for qualifiers is not presented, as these results relate to a small number of students who completed their studies in one or two years – it is not until the third year of data that more robust statistics can be produced. The qualifier population was not limited by the time it took to achieve the qualification. As the NS-SEC data is considered useable from 2015-16 onwards, this results in qualifier statistics from 2017-18 onwards. As detailed in paragraph 17, the data for 2017-18 does not include students who completed their undergraduate studies in four years and as such the data for 2018-19 can be considered to be more representative of the undergraduate population.
29. There is insufficient data to calculate differences in progression rates by socio-economic background. This is because progression rates are based on responses to the Destinations of Leavers from Higher Education (DLHE) survey which has been discontinued and the final year of data available relates to qualifiers in 2016-17. As detailed above, the NS-SEC data is used for 2015-16 entrants onwards so qualifier statistics can only be calculated for 2017-18 and later. We will investigate differences in progression by socio-economic background when the HESA Graduate Outcomes survey data is available.
30. Concerns regarding the quality of this NS-SEC data have been recorded in the past and in 2017 it was discontinued by HESA as a UKPI (performance indicator).¹⁷ However, our data quality framework has determined it is useable from 2015-16 onwards and we have not discovered any reasons to caution against using the data for 2015-16 entrants and later. In 2014 UCAS changed the way it collects NS-SEC data, impacting the academic years 2015-16 onwards.¹⁸ Prior to 2015-16, students were asked to provide the occupation used to calculate NS-SEC as text or from a drop-down list. However, for 2015-16 onwards, the applicant is asked 'If you are in full-time education, please state the occupation of the highest-earning family member of the household in which you live. If he or she is retired or unemployed, give their most recent occupation. If you are not in full-time education, please state just your own occupation'. The applicant is then able to select one of 28,000 ONS job descriptions with no option for free text. UCAS then maps the job description selected onto the main eight SEC codes via a lower level set of around 380 SOC2010 codes. Prior to 2015-16 these were mapped using SOC2000 codes and not SOC2010 codes. This means that in some circumstances, the same job descriptions are mapped to different NS-SEC groups, pre- and post-2015-16. This is the reason we are not using NS-SEC data prior to 2015-16.

¹⁷ See <https://www.hesa.ac.uk/data-and-analysis/performance-indicators/changes>.

¹⁸ See 'Undergraduate scheme – variables' at <https://www.ucas.com/data-and-analysis/data-products-and-services/exact>.

31. In using this data, other than limiting the data to the appropriate populations detailed above, we have not excluded data from these analyses as this could have introduced bias; here we report the data as it is available.



© The Office for Students copyright 2020

This publication is available under the Open Government Licence 3.0 except where it indicates that the copyright for images or text is owned elsewhere.

www.nationalarchives.gov.uk/doc/open-government-licence/version/3/