

Measure of disadvantage used in Key Performance Measures 5 and 6

1. This document describes the methodology of our measure of disadvantage used in our Key Performance Measures (KPMs) 5 and 6. This measure was newly developed by the Office for Students (OfS) for use with these KPMs. It may be utilised for other purposes in the future. The document describes the methodology of creating the measure. We also include some relevant contextual information. This measure was developed in Autumn 2022 and so uses the most recent data that was available at that time, which was entrants in the academic year 2020-21.
2. For further information regarding why we have produced this new measure, see the 'Why are we measuring this' section of the KPM 5 webpage.¹

Feedback

This new measure of disadvantage is published as an experimental official statistic. As a newly developed measure it has potential to change with further research, development and feedback. We strongly encourage all users to share any feedback they have related to this new measure. This feedback can be sent to Annalise Ruck at official.statistics@officeforstudents.org.uk.

Measure of disadvantage groupings

3. The measure was designed for use on our KPM 5 and 6 measures, with the primary purpose of classifying students into the following three groups to allow comparison of access and outcomes for these different groups:
 1. Significantly disadvantaged – As defined by commonly used measures of disadvantage including free school meal eligibility and care experience.
 2. Economically precarious – Students from a financially disadvantaged background but not captured by the 'Significantly disadvantaged' group.
 3. Other.

A fourth group, 'Not applicable', has also been created for those students who could not be classified into the three groups above.

¹ See www.officeforstudents.org.uk/about/key-performance-measures/kpm-5-access-to-higher-education/

4. For this measure we are interested in the background of the student, with a primary focus on data that relates to their financial background. The following data fields have been utilised to create this measure:
 - School type – The type of school the pupil attended in Key Stage 4; independent school, state-funded mainstream school or special and alternative school. Data accessed from the Department for Education’s (DfE’s) National Pupil Database (NPD), which applies to schools in England.²
 - Free school meals (FSM) eligibility – Whether the student was ever recorded as eligible for FSM in the six years up to GCSE year. Data available on the NPD.
 - Dependency status – Whether the student is considered by the Student Loans Company (SLC) to be financially independent.
 - Household residual income (HRI) – The income of the student’s household after certain allowances have been taken into account.³ Recorded by the SLC as part of their allocation of student loans.
5. As a result of the availability of the data fields described above, the starting population for this measure is England-domiciled, full-time, undergraduate students, under 21 on entry to higher education that can be linked to an NPD record.
6. When we refer to students as ‘Significantly disadvantaged’ this is referred to in terms of the circumstances of their background⁴. When a student is classified as ‘Other’, this means that we cannot classify them as disadvantaged using the characteristics included in our measure; however they may be disadvantaged according to other metrics.
7. Table 1 details the different disadvantage subgroups we have produced and why they have been placed in the larger disadvantage groups. The process of classifying students into the different groups is illustrated in Figure 1.

² The DfE does not accept responsibility for any inferences or conclusions derived from the NPD data by third parties.

³ See www.gov.uk/student-finance/new-fulltimestudents.

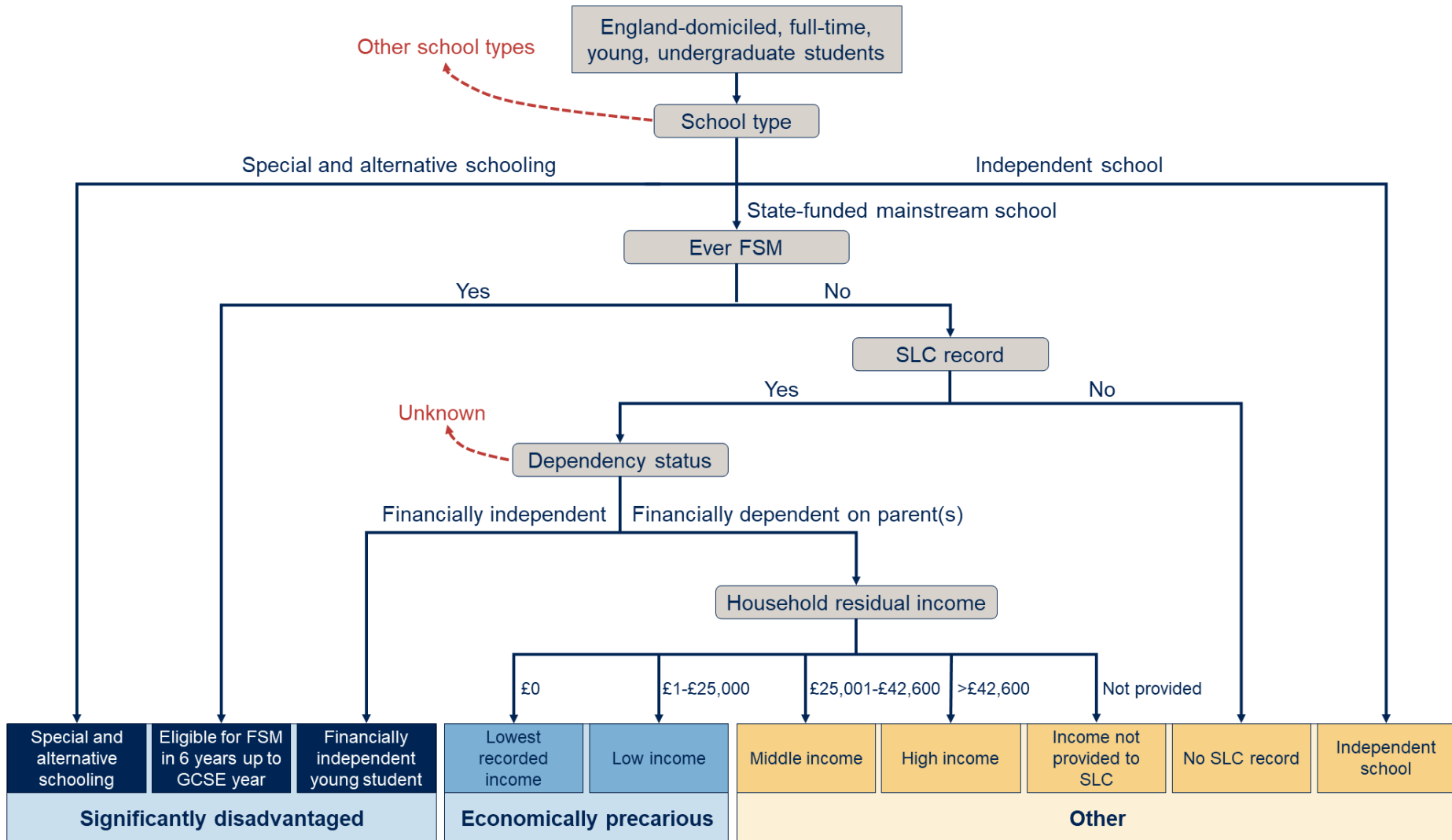
⁴ statistical significance testing has not been used in the creation of this group

Table 1. Disadvantage measure and subgroups

Disadvantage group	Subgroup	Description of subgroup
Significantly disadvantaged	Ever eligible for FSM	Ever eligible for FSM in the six years prior to GCSE.
	Financially independent young student who was not eligible for FSM	A student under 21 on entry to higher education who is financially independent due to circumstances such as being a care leaver or estranged from parents.
	Special and alternative schooling	Students who attended special and alternative schooling have some of the poorest outcome and access rates.
Economically precarious	Low income - Financially dependent - Was not eligible for FSM	The student's parental HRI (£1-£25,000) means they receive the full maintenance loan but they were not eligible for FSM when at school so would not be classified as disadvantaged when looking at FSM alone.
	Lowest recorded income - Financially dependent - Was not eligible for FSM	The student's parental HRI (£0) means they receive the full maintenance loan but they were not eligible for FSM when at school so would not be classified as disadvantaged when looking at FSM alone. This subgroup is separated from the Low income subgroup because students with an HRI recorded as £0 have worse higher education outcomes.
Other	Independent school	Students who attended independent school in their GCSE year have some of the best outcomes and access rates regardless of financial background.
	High income - Financially dependent - Was not eligible for FSM	Highest HRI group (>£42,600). Parental income above the cut-off for receiving the basic maintenance loan.
	Middle income - Financially dependent - Was not eligible for FSM	Middle HRI group (£25,001-£42,600). Parental income above the cut-off for receiving the full maintenance loan but below the cut-off for receiving the basic maintenance loan.

	SLC record but income not reported - Financially dependent - Was not eligible for FSM	Student's parents have not provided financial information so student eligible for basic maintenance loan. As HRI is not reported it is likely the student's parents are in a situation where they can provide financial support to the student.
	No SLC record - Was not eligible for FSM	Did not receive funding for tuition or maintenance from the SLC so unlikely to be financially disadvantaged.
Not applicable – excluded from KPM statistics	Other school type	Cannot confidently group data – applies to very small numbers of students.
	SLC record but no dependency status - Was not eligible for FSM	Cannot confidently group data – applies to very small numbers of students.
	Not a young, England-domiciled, full-time, undergraduate student with an NPD record	Outside measure population

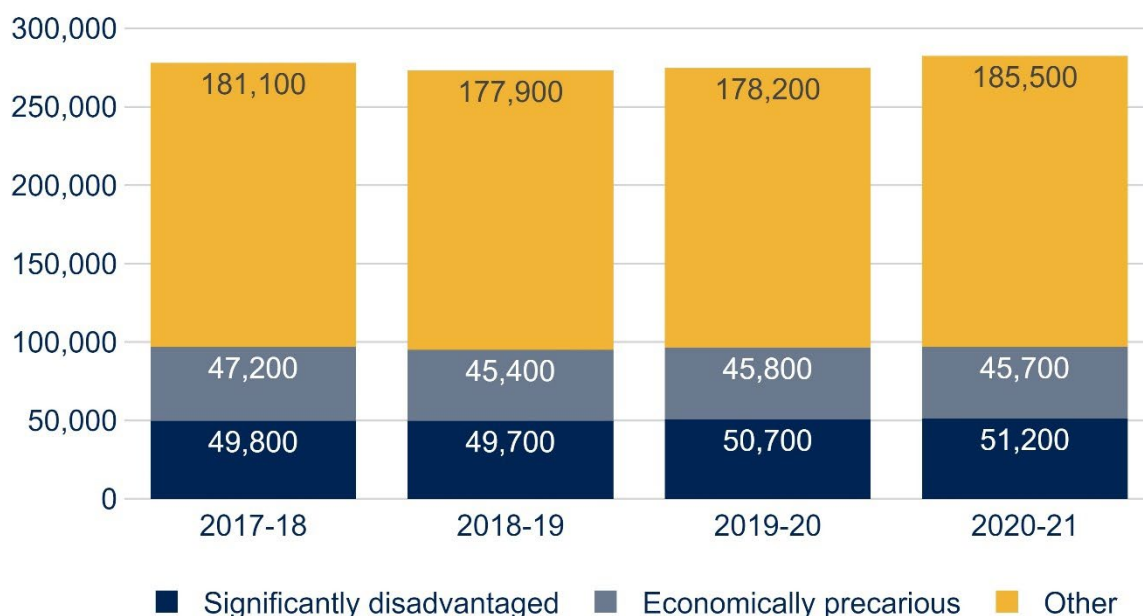
Figure 1. Flow diagram showing disadvantage grouping classification process



Entrants by disadvantage groups

8. The distribution of young, England-domiciled, full-time, undergraduate entrants with an NPD record across the disadvantage groups can be seen in Figure 2. Figure 3 shows how these same students are distributed throughout the disadvantage subgroups detailed in Table 1.

Figure 2: Number of young, full-time, England-domiciled undergraduate entrants by disadvantage groups



Further details on disadvantage groupings

9. This section of the report covers each of the five major stages of classifying students, as illustrated in Figure 1, explaining how and why the subgroups were selected.
10. The starting population for this measure is England-domiciled, full-time, undergraduate students, under 21 on entry to higher education that can be linked to an NPD record. There are around 290,000 young, full-time, England-domiciled undergraduate entrants to English higher education providers each year. We are able to link a GCSE year NPD record to 95 per cent of these students. The remaining 5 per cent cannot be linked for a variety of reasons. These reasons include student personal circumstances such as moving to England after GCSE year but before entering higher education. Additionally, missing NPD data can prevent us from linking a student's NPD record with their higher education record, something that is more common for students who attended independent schools in their GCSE year.

Use of school type

11. Students are split by the type of school they attended at Key Stage 4 because of both student experiences and access and outcomes data. Independent school students consistently have the best access and outcome rates while special and alternative school pupils have the worst. Our internal analysis indicates this pattern is maintained regardless of financial background. For example, in 2019-20, students who attended independent schools had higher continuation rates than those who attended state-funded mainstream schools or special and alternative schools, irrespective of whether their HRI was low, medium or high. For this reason, students who attended an independent school in their GCSE year are placed in their own subgroup

regardless of financial background. This will include students who may have been eligible for FSM had they attended a state-funded school. We aim to investigate this further in future iterations of this measure.

12. We use Key Stage 4 NPD data and the type of school the student attended in their GCSE year. As such we do not account for school type during Key Stage 5. For example, if a student attended a state-funded mainstream school when taking their GCSEs and were eligible for FSM but later attended an independent school for Key Stage 5 they will be classified as 'Significantly disadvantaged'.
13. School types are assigned using the NPD field KS4_NFTYPE⁵ and grouped as follows:
 - a. Independent school: KS4_NFTYPE = 30
 - b. State-funded mainstream schools: KS4_NFTYPE in (20-25, 31, 51, 52, 57-59, 63, 64)
 - c. Special and alternative schools: KS4_NFTYPE in (26-29, 32-34, 48, 50, 53, 55, 56, 61, 62, 97)
 - d. Other school type: All other values of KS4_NFTYPE.

Use of FSM eligibility

14. FSM eligibility is a commonly used method of classifying disadvantage due to the eligibility criteria required to receive FSM. For this reason, students who attended state-funded mainstream schools that were eligible for FSM are placed in a 'Significantly disadvantaged' subgroup. For this grouping we used the NPD field EVERFSM_6_SPR, which records whether the student was ever eligible for FSM in the prior six years.⁶ This definition of FSM eligibility is the one primarily used by the Office for Students and is the FSM eligibility definition used in Pupil Premium funding allocation.

Use of presence of an SLC record

15. Students do not have to apply for funding through the SLC and can fund their studies themselves or through another source. Students who do not have an SLC record are classified as part of the 'Other' group. This is because our internal analysis shows the majority of these students are self-funding and therefore assumed not to be financially disadvantaged in the same way as those in the 'Economically precarious' subgroups.
16. It is likely that some students in this group who do not have an SLC record are not self-funding and instead have an alternative source of funding such as being fully funded by a charity. These students could potentially have been classified as 'Economically precarious' if we had a record of their HRI. However, an assessment of the major source of tuition fees (MSTUFEE⁷) for these students suggests the majority are self-funding.

⁵ See https://find-npd-data.education.gov.uk/en/data_elements/1267f84a-3913-4358-bebe-17959988bf26

⁶ See https://find-npd-data.education.gov.uk/en/data_elements/a446155e-871b-4906-a11b-c56bdbc71a62

⁷ See <https://www.hesa.ac.uk/collection/c19051/a/mstufee>

Use of dependency status

17. Financial dependency is used as a criterion in our disadvantage measure because young entrants (under 21 on entry) who are financially independent will have very different experiences to those who are financially dependent on parent(s)/guardians(s). Our investigations show that financially independent young students have some of the worst higher education outcomes.
18. Financial dependency is determined by the SLC as part of student loan allocation. Reasons a young student can be classified as financially independent include being a care leaver, being estranged, being an orphan, having children or having supported themselves financially for over three years before starting their course. Students are also considered independent by the SLC if they are over 25. Given we include only young students in this measure we know the students in our population are not financially independent due to their age.

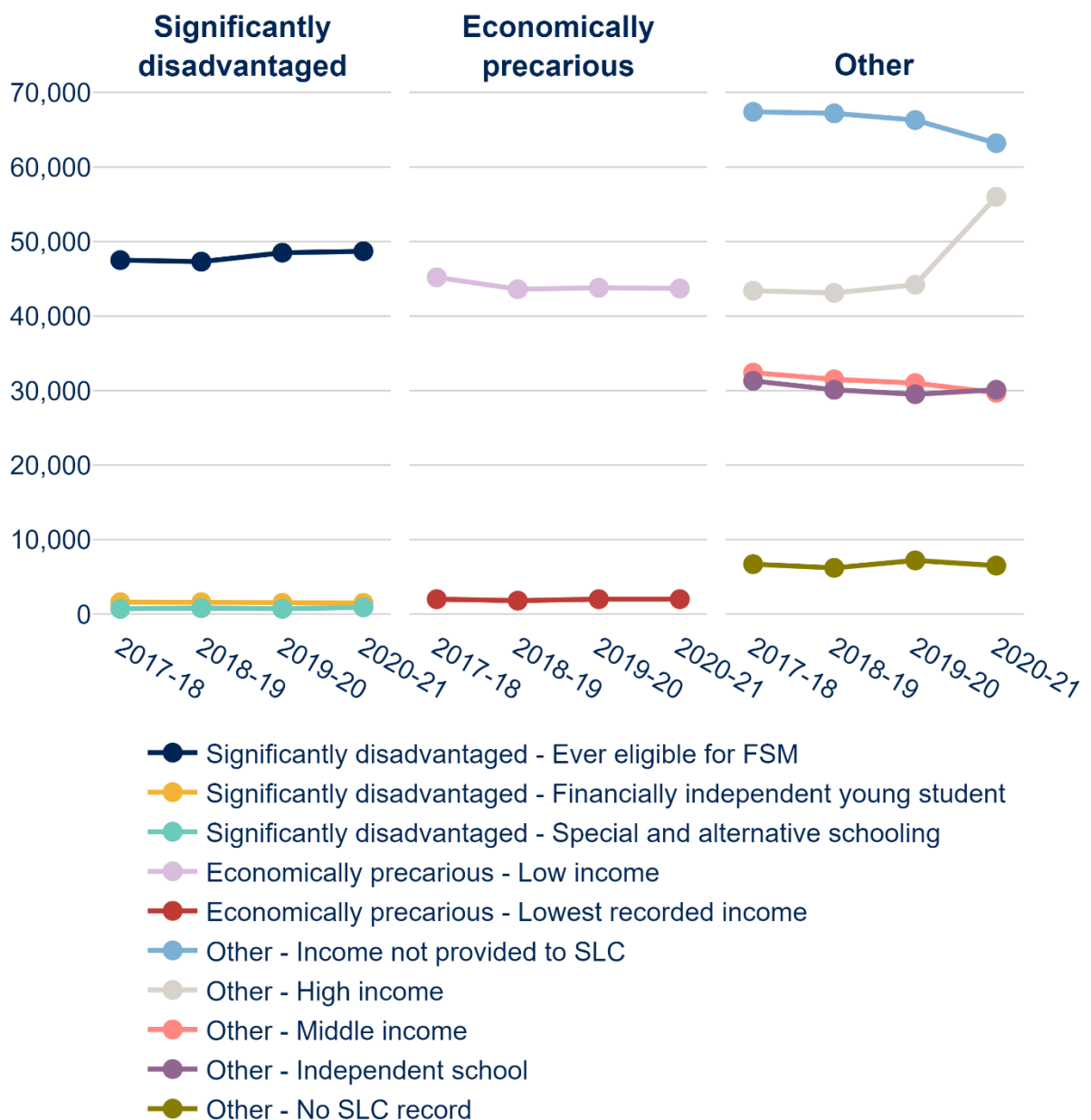
Use of HRI

19. HRI records household income after accounting for certain outgoings. For financially dependent students it is based on parental income. It is this value that determines a student's access to income-assessed student finance. In this measure HRI is classified into four subgroups: Lowest (£0), Low (£1-£25,000), Medium (£25,001-£42,600) and High (>£42,600). These HRI groupings align with those used previously in our 'Differences in student outcomes - further characteristics' report, which found that higher education outcomes are best for students from high HRI background and vice versa.⁸
20. An HRI value of £25,000 is used as the cut-off between Low and Medium (and therefore distinguishing 'Economically precarious' and 'Other') because this is the value used by the SLC for assigning the maximum maintenance loan. All HRI values up to £25,000 are treated the same by the SLC and no parental contribution is assumed.
21. Students who are recorded as having an HRI value of £25,000 or below but were not eligible for FSM are recorded as 'Economically precarious'. This is because these student's household income is low enough for them to receive the full maintenance loan entitlement. However, because they were not eligible for FSM when at school they are not captured when using FSM eligibility alone to define disadvantage. Our 'Economically precarious' group allows us to capture a wider population of disadvantaged students than FSM eligibility alone.
22. We have further separated HRI values of £0 as the outcomes of this subgroup are consistently worse than the other values below £25,000. Note, this Lowest/Low split has no impact on the values for KPM5 and only the subgroups within the 'Economically precarious' group.
23. An HRI value of £42,600 is used as the cut-off between the Middle income and High income groups. An HRI value of £42,600 is regularly used in the higher education sector as a cut-off figure when assigning bursaries. We have not used the cut-off for the basic amount of maintenance loan due to concerns that students' behaviour in terms of declaring HRI may vary near this boundary. Note, the boundary selected for the Middle/High income subgroups has no impact on the values for KPM 5 and only the subgroups within the 'Other' group.

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

24. Students with an SLC record but who have not provided their financial information are in their own subgroup. This subgroup is classified within 'Other' because they have some of the best outcomes and it is likely that in most cases the student's parents have not provided their financial information because they are aware it is too high to influence the amount of maintenance loan the student will receive. These students automatically received the basic maintenance loan.
25. This data is being published as an experimental official statistic and the boundaries for these HRI groupings may be changed in future iterations of this measure.

Figure 3. Number of young, full-time, England-domiciled undergraduate entrants by disadvantage subgroups



Note: the SLC have confirmed that the large increase in the High income subgroup between 2019-20 and 2020-21 is a genuine reflection of changes in the higher education sector during this time. The data used to produce this chart can be found in the datafile associated with KPM 5.

Annex A: Comparisons with other measures

1. We have made comparisons between our new measure of disadvantage with some other measures used by the OfS to ensure it is a robust measure that complements our existing measures. Figure 4 illustrates how the new disadvantage measure groups are spread across the different quintiles for the following measures:
 - Index of Multiple Deprivation 2019 (IMD)⁹
 - Income Deprivation Affecting Children Index 2019 (IDACI)¹⁰
 - Tracking underrepresentation by area based on Middle Layer Super Output Areas (TUNDRA MSOA)¹¹
 - Associations between characteristics of students (ABCS) access¹²
 - National Statistics Socio-economic classification (NS-SEC).¹³
2. Figure 4 shows how each measure category (e.g. quintile 1) is spread across the three disadvantage groups (Significantly disadvantaged/Economically precarious/Other) for individuals who have entered higher education. It is not possible to compare our new disadvantage measure with the characteristics of all young individuals in England (i.e. including those who do not enter higher education) because the measure is created using data that exists only for higher education students.

IMD and IDACI

3. IMD and IDACI are area-based measures that combine various measures to assign a level of deprivation to an area. As can be seen in Figure 4a and 4b, there is a strong relationship with these measures and our new disadvantage measure, which is very similar for both IMD and IDACI. While IMD and IDACI are assigned to students based on where they live, unlike our new measure which is based on their personal characteristics, there is a clear trend between the two: 40 per cent of IMD quintile 1 entrants are 'Significantly disadvantaged' compared with 5 per cent for IMD quintile 5 entrants.

TUNDRA MSOA

4. TUNDRA MSOA is an area-based measure of underrepresentation in higher education produced by the OfS. This measure specifically looks at rates of higher education access for different areas and it is not designed to be a measure of socioeconomic disadvantage. While there is a relationship between TUNDRA and our different disadvantage groups, it is not as pronounced as IMD and IDACI. This occurs because we are comparing a measure of students

⁹ See <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>

¹⁰ See <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>

¹¹ See www.officeforstudents.org.uk/data-and-analysis/young-participation-by-area/about-tundra/

¹² See www.officeforstudents.org.uk/data-and-analysis/associations-between-characteristics-of-students/

¹³ See

<https://www.ons.gov.uk/methodology/classificationsandstandards/otherclassifications/thenationalstatisticsocioeconomicclassificationnssecbasedonsoc2010>

accessing higher education (TUNDRA) with a measure for students who have already entered higher education.

5. TUNDRA looks at the likelihood that the young people from an area will enter higher education. While there is a link between FSM eligibility and access to higher education, this pattern is not consistent across areas. For example, pupils in London have some of the highest rates of higher education access while also having the highest rates of FSM eligibility in the country. As a result, the total number of students entering higher education who were eligible for FSM is larger for TUNDRA quintile 5 areas than quintile 1 areas. As FSM eligibility is the major factor determining a student being placed in our 'Significantly disadvantaged' group, we would not expect there to be a strong relationship between our TUNDRA measure and our new disadvantage measure.
6. If we were able to look at our disadvantage measure and all students on the NPD we would anticipate to find a stronger relationship between TUNDRA and our disadvantage groups, however this is not possible as the new measure is produced using data that only exists for students that have entered higher education.

ABCS access

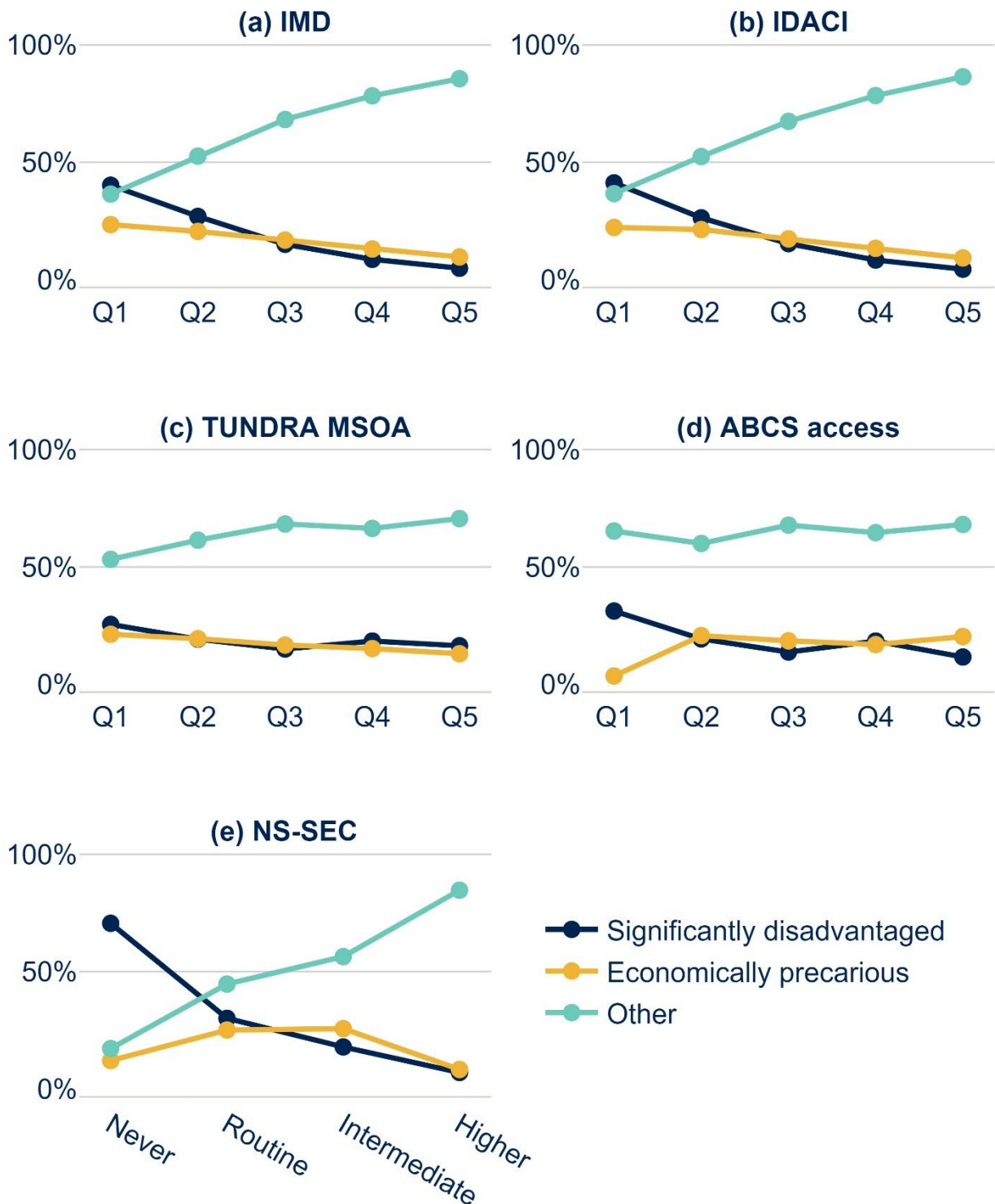
7. ABCS access is produced by the OfS and measures the proportion of 18- or 19-year-olds entering higher education and assigns them to access quintiles based on the combination of different characteristics, including FSM eligibility. There is a slight trend between our new disadvantage measure and ABCS access: 31 per cent of ABCS access quintile 1 entrants are 'Significantly disadvantaged' compared with 12 per cent for ABCS access quintile 5 entrants. However, like TUNDRA, a direct comparison between our new disadvantage measure and ABCS access is not robust as it involves comparing a measure of students accessing higher education with a measure for students who have already entered higher education.

NS-SEC

8. The NS-SEC data used for this student population applies to the occupation of the student's parent, step-parent or guardian who earns the most. This occupation is then classified into one of four groups: 'Higher managerial, administrative and professional occupations', 'Intermediate occupations', 'Routine and manual occupations' and 'Never worked and long-term unemployed'. Further detail on this data is described on our website.¹⁴
9. There is a strong relationship between parental occupation and disadvantage group. 71 per cent of entrants whose parents have never worked or are long-term unemployed are 'Significantly disadvantaged' compared with 7 per cent for those whose parents work in higher managerial, administrative and professional occupations.

¹⁴ See www.officeforstudents.org.uk/publications/differences-in-student-outcomes-further-characteristics/

Figure 4. Comparison between OfS disadvantage measure and other measures of student background for 2020-21 entrants



Percentages show how the measure category (e.g. quintile 1) is spread across the three disadvantage groups (Significantly disadvantaged/Economically precarious/Other). Students for which the measure is unknown are excluded from the calculations. Data applies to young, England-domiciled, full-time, undergraduate students with an NPD record. The data used to produce these charts can be found in the datafile associated with KPM 5.

Student personal characteristics

10. The personal characteristics of students in the different disadvantage groups align with our existing knowledge of disadvantage and personal characteristics. Similar proportions of female and male students are in each of the three disadvantage groups; 19 per cent of female entrants are 'Significantly disadvantaged' compared with 17 per cent of male entrants. This is also the case for disabled and non-disabled students; 19 per cent of disabled entrants are 'Significantly disadvantaged' compared with 18 per cent of non-disabled.
11. Proportions for the different groups are not consistent across the ethnicities. For our population of students, 12 per cent of white entrants are 'Significantly disadvantaged' whereas 45 per cent of black entrants are 'Significantly disadvantaged'. 25 per cent of Asian entrants are 'Significantly disadvantaged', 25 per cent of mixed ethnicity entrants and 44 per cent of other ethnicity entrants. Given the association between ethnicity and socioeconomic disadvantage this is as expected. For example, a lower proportion of white students are eligible for FSM than other ethnicities.¹⁵
12. 26 per cent of entrants whose parents do not have a higher education qualification are 'Significantly disadvantaged' whereas only 10 per cent of entrants whose parents have a higher education qualification are 'Significantly disadvantaged'. This is as expected given the association between higher education and socioeconomic background.

¹⁵ See <https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics>

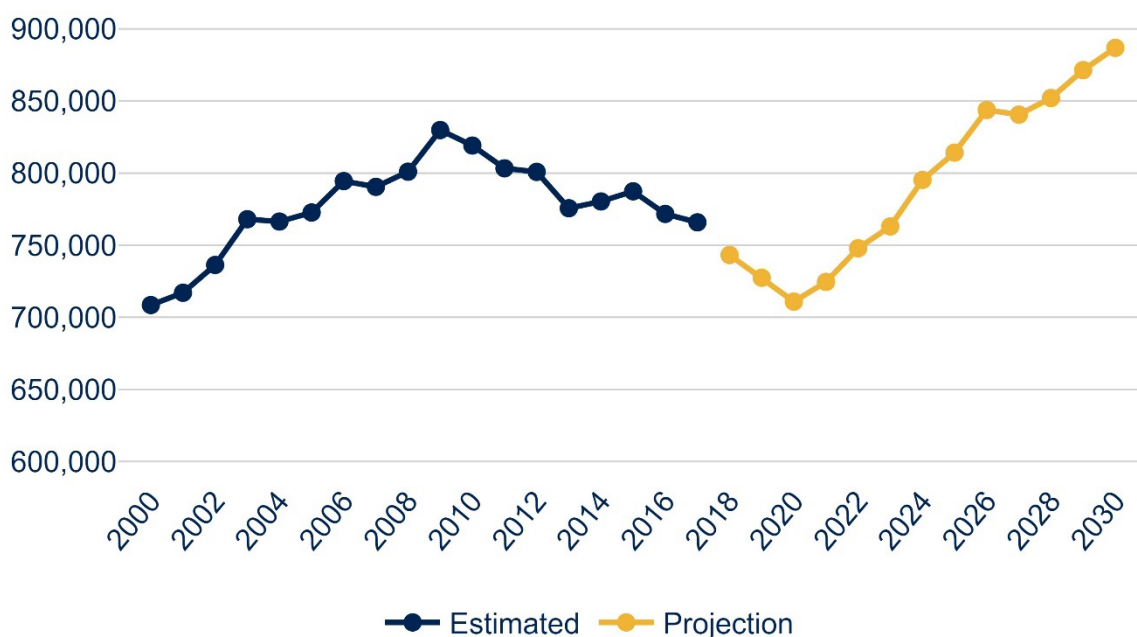
Annex B: Anticipated changes in higher education entrants

1. It is useful to note that regardless of access and participation activities, the total number of 'Significantly disadvantaged' students entering higher education will almost certainly increase in future. Even if access rates for these students remain stationary, the number of students recorded as 'Significantly disadvantaged' is going to increase in future years due to population changes and changes in FSM eligibility criteria.

Increases in young population

2. As can be seen in Figure 5, after a decade of decline, the number of 18-year-olds in the UK population is projected to increase. By 2030 the number of 18-year-olds is predicted to be 887,000. This is 25 per cent higher than in 2020.
3. Assuming the level of demand for higher education by 18-year-olds is maintained and around 40 per cent of 18-year-olds enter higher education in 2030-31, this represents around 70,000 additional entrants when compared with 2020-21.
4. If higher education providers are able to accommodate this increase in entrants and access rates for 'Significantly disadvantaged' students are maintained then the total number of 'Significantly disadvantaged' students entering higher education is naturally going to increase regardless of access and participation policies.

Figure 5. Projected change in 18-year-old population of the UK



Note y-axis does not start at zero. Data produced by the ONS.¹⁶

¹⁶ See

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/articles/being18in2018/2018-09-13>

Changes in FSM eligibility

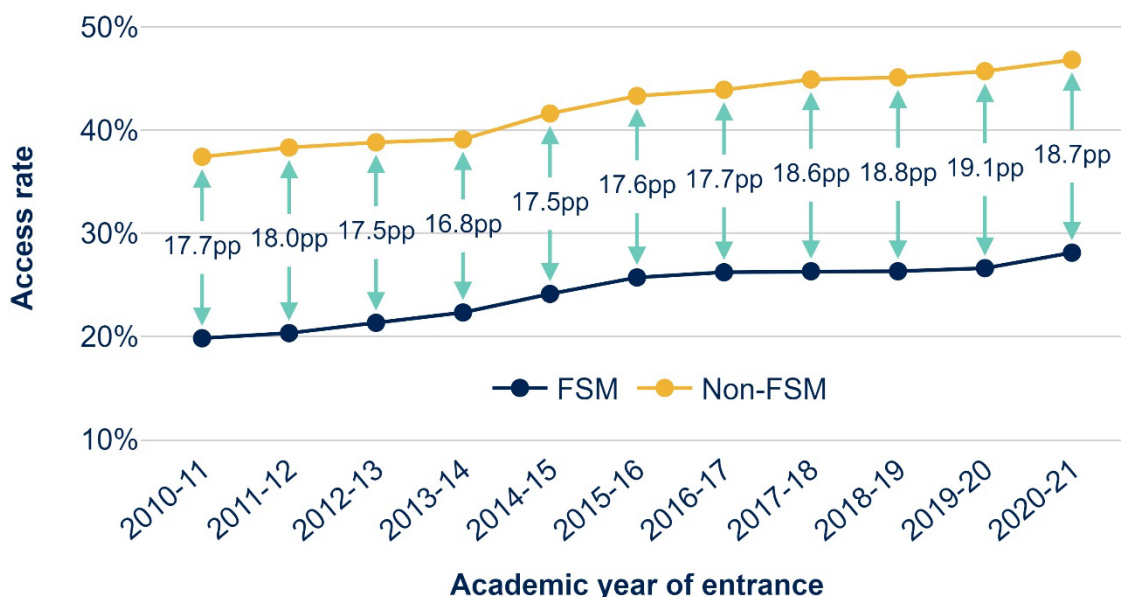
5. An important consideration when using FSM eligibility and assessing changes over time is that the eligibility criteria are not constant and can change with shifts in policy. Significantly, changes to FSM eligibility as a result of Universal Credit transitional arrangements are going to lead to a large increase in the number of students ever eligible for FSM, who would not have been recorded as such if these arrangements had not been introduced. The population of students recorded as ever eligible for FSM in future years will be larger and not directly comparable to previous years.
6. These transitional arrangements and the impacts on FSM eligibility data are detailed elsewhere but it is important to consider that with regard to differences between FSM eligible and ineligible students, according to the National Foundation for Educational Research 'over the coming decade, it will become increasingly hard to tell whether apparent changes to the attainment gap are being driven by changes to the composition of the disadvantage group, economic conditions or genuine attainment changes'.¹⁷
7. The number of higher education entrants recorded as eligible for FSM will inevitably rise as a result of the transitional arrangements and in turn so will the number of entrants recorded as 'Significantly disadvantaged' in KPM 5. While the number of 'Significantly disadvantaged' students will increase, the backgrounds of these students will not necessarily be directly comparable to those currently recorded as 'Significantly disadvantaged'. If it were not for these transitional arrangements, a number of students recorded as 'Significantly disadvantaged' in the future would have been recorded as 'Economically precarious' or 'Other'.

Other considerations

8. It is likely that demand for higher education study across the levels of disadvantage is going to continue to increase, so again the number of 'Significantly disadvantaged' entrants will naturally increase regardless of access policies.
9. We perceive it to be unlikely that the access rates of 'Significantly disadvantaged' students are going to remain stationary. Figure 6 shows the population referenced access rates for students who received FSM at age 15 have been consistently increasing. As a result of this access rate increase, the growth in the number of 'Significantly disadvantaged' entrants will likely be even higher than those caused by changes in the number of young people and the Universal Credit transitional arrangement alone.

¹⁷ See <https://www.nfer.ac.uk/investigating-the-changing-landscape-of-pupil-disadvantage/>

Figure 6. Higher education access rates by FSM status



Note y-axis does not start at zero. Data produced by the Department for Education and shows the proportion of state-funded and special school pupils who entered Higher Education by age 19 by their FSM status at age 15.¹⁸

10. It is useful to note that participation gaps between those who did and did not receive FSM have remained stable so all else being equal the access rates for those who did not receive FSM will also increase, which will lead to the number of 'Economically precarious' and 'Other' students to also increase.
11. The OfS, higher education providers and other organisations are doing large amounts of work in this area to increase access rates for disadvantaged individuals and we would anticipate that access rates will continue to increase and the participation gaps will reduce.
12. The cut-off between being recorded as 'Economically precarious' and 'Other' for a student who was not eligible for FSM is set at an HRI value of £25,000. This value was chosen as it is used by the SLC for assignment of the full maintenance loan. With inflation and other changes in cost of living and incomes, the 'value' for £25,000 will change with time, along with the experiences of students from families with HRI values around the £25,000 cut off. Depending on economic trends, the total number of students recorded as 'Economically precarious' has potential to fluctuate without any changes in the access rates of students from low-income backgrounds who were not eligible for FSM.

¹⁸ See <https://explore-education-statistics.service.gov.uk/find-statistics/widening-participation-in-higher-education/2020-21>