

Office for
Students



Consultation on constructing student outcome and experience indicators for use in OfS regulation

**Analysis of responses to consultation
and decisions: Addendum**

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The Office for Students is the independent regulator for higher education in England. We aim to ensure that every student, whatever their background, has a fulfilling experience of higher education that enriches their lives and careers.

Our four regulatory objectives

All students, from all backgrounds, and with the ability and desire to undertake higher education:

- are supported to access, succeed in, and progress from, higher education
- receive a high quality academic experience, and their interests are protected while they study or in the event of provider, campus or course closure
- are able to progress into employment or further study, and their qualifications hold their value over time
- receive value for money.

Documents referred to in this analysis of consultation responses and decisions

In this document we refer to the following documents:

- January 2022 consultation on constructing student outcome and experience measures for use in OfS regulation (www.officeforstudents.org.uk/publications/student-outcomes-and-teaching-excellence-consultations/outcome-and-experience-data/), and its corresponding decisions available at the same location (originally published in July 2022 and supplemented by this document)
- January 2022 related consultation on regulating student outcomes (www.officeforstudents.org.uk/publications/student-outcomes-and-teaching-excellence-consultations/student-outcomes/), and its corresponding decisions available at the same location
- January 2022 related consultation on the Teaching Excellence Framework (TEF) (www.officeforstudents.org.uk/publications/student-outcomes-and-teaching-excellence-consultations/the-tef/), and its corresponding decisions available at the same location
- May 2022 supplementary consultation on publication of information about higher education providers (www.officeforstudents.org.uk/publications/supplementary-consultation-on-publication-of-information-about-higher-education-providers/)
- Technical documents and user guides providing information about constructing student outcome and experience indicators for use in OfS regulation (www.officeforstudents.org.uk/data-and-analysis/institutional-performance-measures/technical-documentation/):
 - Description of student outcome and experience measures used in OfS regulation: Definition of measures and methods used to construct and present them
 - Core algorithms
 - Rebuild instructions
- Review of the selection and grouping of benchmarking factors (www.officeforstudents.org.uk/publications/review-of-selection-and-grouping-of-benchmarking-factors/)

Summary

1. Our consultation on the construction of student outcome and experience indicators for use in OfS regulation sought views about the construction, presentation and interpretation of data about different aspects of the student lifecycle which informs our regulatory approaches.¹ It sat alongside related consultations on regulating student outcomes and the future TEF scheme and provided further detail about the technical implementation of proposals to construct numerical measures of student outcomes and experiences at higher education providers.² It was also relevant to regulation of access and participation, where our approach also uses data about student outcomes.
2. On 26 July 2022 we published our analysis of responses to the consultation and decisions. We also published, at the same time, our analysis of responses to the consultations on regulating student outcomes and the TEF, and our decisions on those matters.³ We noted in those responses that we were unable to take final decisions on a small number of matters:
 - a. We set out in paragraphs 14 to 16 of our response to the indicators consultation that we would not take final decisions on publication matters related to the implementation of new approaches to the TEF and condition B3, until we had considered responses to the consultation on the publication of information about higher education providers.⁴ Consequently, that response went on to describe that we were not, at that time, taking final decisions on the technical detail of what would be published in respect of indicators to inform the TEF, the assessment of condition B3, and regulation of access and participation, or the ways in which it would be published.
 - b. We set out in paragraphs 824 to 867 of our response to the indicators consultation that we had decided to:
 - i. Adopt the benchmarking approach described in the consultation.
 - ii. Adopt the principles we had proposed for selecting and grouping benchmarking factors.
 - iii. Prioritise the inclusion of 'Associations between characteristics of students (ABCS)' as a benchmarking factor for continuation, completion and progression measures.

¹ See www.officeforstudents.org.uk/publications/student-outcomes-and-teaching-excellence-consultations/outcome-and-experience-data/.

² See the regulating student outcomes consultation at www.officeforstudents.org.uk/publications/student-outcomes-and-teaching-excellence-consultations/student-outcomes/ and the TEF consultation at www.officeforstudents.org.uk/publications/student-outcomes-and-teaching-excellence-consultations/the-tef/.

³ An 'Analysis of responses to the consultation and decisions' is available alongside each consultation, at the weblinks given above.

⁴ See www.officeforstudents.org.uk/publications/consultation-on-publication-of-information-about-higher-education-providers-analysis-of-responses-and-decision/.

3. We also set out the need to construct the final indicators, and the ABCS analyses related to the completion and progression stages of the student lifecycle (which rely on the definition of the measures that were consulted on), before we could assess whether the factors and groupings we proposed continue to maintain the statistical integrity of the benchmarking approach. Consequently, the response identified that final decisions on the selection and grouping of benchmarking factors would need to follow in due course.
4. We have now taken decisions about these matters. This document supplements our analysis of responses to the indicators consultation and decisions published on 26 July 2022. It includes the OfS response on each matter and, where relevant, discussion of the proposals we consulted on, and comments raised by respondents to the consultation. It therefore assumes that readers are familiar with the consultation proposals and decisions we have previously published. We do not repeat discussion of the proposal or respondents' comments here unless it is meaningful to do so, as these have been documented previously in our response document.
5. We have also documented a small number of consequential decisions following decisions on the matters of publications and benchmarking.

Final decisions

6. For the reasons explained through the remainder of this document, we have decided to proceed with the proposals related to the outstanding matters described in paragraph 2 above broadly as we set out in the consultation (and the supporting publication of the definitions in algorithm form), with some specific amendments.⁵ These decisions do not change any of the decisions previously taken and published in July 2022. Our decisions on the outstanding matters are as follows:
 - a. Following our response to the consultation on the publication of information we can confirm we will:
 - i. Not publish the partnerships view of a provider's student population within our data dashboards in the first year of operation of the new approach to regulating student outcomes. Our reasoning for this is set out in paragraph 191 of our analysis of responses to the consultation and remains unchanged.
 - ii. Publish an extended time series in the access and participation data dashboard up until spring 2024, starting with an additional publication of the dashboard later in 2022. Our reasoning for this is set out in paragraphs 221 to 222 of our analysis of responses to the consultation and remains unchanged.
 - iii. Publish additional information in our data dashboards providing information about the size and shape of provision at each provider, which will report on the number

⁵ The data definitions we included in the consultation document were described in narrative form. We also published the definitions in algorithm form, which represented the technical implementation of our proposed approach, and which we anticipated would be of particular use and interest to data practitioners. See the 'Core algorithms' document published alongside the consultation, at www.officeforstudents.org.uk/publications/student-outcomes-and-teaching-excellence-consultations/outcome-and-experience-data/.

and proportion of students on higher education courses that would not be recognised for OfS funding purposes (whether or not the provider itself is eligible for OfS funding). Our reasoning for this is set out in paragraphs 257 to 264 of our analysis of responses to the consultation and remains unchanged.

- iv. Publish additional information in our data dashboards, which will report on the number and proportion of students who counted negatively towards the progression indicator but reported in their response to the Graduate Outcomes survey that they had undertaken interim study. Our reasoning for this is set out in paragraphs 627 to 634 of our analysis of responses to the consultation and remains unchanged.
 - v. Publish the indicators and split indicators used to inform assessments of condition B3 and TEF, and regulation of access and participation, within separate interactive data dashboards, along with the same information represented in an Excel data workbook and in data files which we will make available in portable formats (such as XML, CSV or similar). Other than the additions described in points iii and iv above, the content of these data resources will remain unchanged from that released alongside the consultation. However, the visual presentation of the interactive data dashboards will be revised to improve the user experience of navigating and interacting with them. Our reasoning for this is set out in paragraphs 119 to 133, and 205 to 209, of our analysis of responses to the consultation and remains unchanged.
- b. For the purposes of publishing additional information in our data dashboards about the number and proportion of students on higher education courses that would not be recognised for OfS funding purposes, we have decided to use the definitions set out in paragraphs 34 to 35 of this document, for the reasons explained there.
 - c. For the purposes of publishing additional information in our data dashboards about the number and proportion of Graduate Outcomes respondents reporting interim study activities, we have decided to use the definitions set out in paragraphs 36 to 42 of this document, for the reasons explained there.
 - d. We have decided on the selection and grouping of benchmarking factors that is summarised in Tables 7 to 10. Our reasoning for this is set out in paragraphs 45 to 141 of this document.
 - e. For the purposes of constructing split indicators and benchmarks for indicators reported in respect of the apprenticeship mode of study, we have decided to use the ABCS quintiles produced on the basis of the outcomes for full-time students. Our reasoning for this is set out in paragraphs 112 to 113 of this document.
 - f. For the purposes of constructing split indicators using the ABCS analyses we have decided that they will report on student outcomes for three groups of students: those in quintile 1, those in quintiles 2 and 3, and those in quintiles 4 and 5. Our reasoning for this is set out in paragraphs 144 to 148 of this document.
 - g. For the purposes of constructing split indicators using the geography of employment analysis, we have decided that they will report on progression outcomes for three

groups of students: those in quintile 1, those in quintiles 2 and 3, and those in quintiles 4 and 5. Our reasoning for this is set out in paragraphs 149 to 155 of this document.

Implementation and next steps

7. We therefore confirm that the OfS will construct student outcome and experience measures on the basis of their formulation as the algorithms we have published in the 'Core algorithms' document.⁶ We have updated this document, as well as the 'Description of student outcome and experience measures used in OfS regulation' document, to reflect our consultation outcomes in full. We anticipate that these documents will be updated on an annual basis hereafter to incorporate the definitions of more recent years of student data as they become available.
8. By comparison with the versions that we released alongside the consultation, the core algorithms and descriptions documents incorporate the following changes:
 - a. Amended algorithms and descriptions which reflect the amendments described in the table at paragraph 11c of the analysis of responses to the consultation published in July 2022.
 - b. Incorporation of updated data, including the 2020-21 Higher Education Statistics Agency (HESA) Student and Student Alternative, and ILR student data records, and responses to the 2019-20 Graduate Outcomes survey and 2022 National Student Survey instruments. This data has become available since we published the consultation, in which we proposed to include the latest available data in the construction of the final indicators to be used in the implementation of our new approaches to regulating student outcomes and the TEF.
 - c. Amended algorithms and descriptions which reflect the final decisions described in paragraph 6, including the incorporation of the extended ABCS and geography of employment analyses.⁷
 - d. Additional explanations that address requests from consultation respondents for further clarity in explanations of specific algorithms or methods (such as the approach to students who start multiple instances of higher education study in the same year for the purposes of defining an entrant population, or the approach to calculating statistical uncertainty).
 - e. Incorporation of new and amended algorithms and descriptions related to the definition of additional data components for use in regulation of access and participation, including additional student characteristics (such as the Income

⁶ See www.officeforstudents.org.uk/data-and-analysis/institutional-performance-measures/technical-documentation/.

⁷ Extended versions of the ABCS analyses and the geography of employment and earnings method have been published by the OfS as official statistics. See the latest ABCS analyses at www.officeforstudents.org.uk/data-and-analysis/associations-between-characteristics-of-students/ and the geography of employment method at www.officeforstudents.org.uk/publications/a-geography-of-employment-and-earnings/.

Deprivation Affecting Children Index (IDACI) quintiles) to be used for the purposes of providers' understanding data and student outcomes relevant to access and participation issues.

9. We have now published interactive data dashboards and associated data files which use data definitions and approaches that implement our consultation outcomes in full. To date, these include:
- The student outcomes data dashboard showing the measures of continuation, completion and progression outcomes to be used in the implementation of our new approach to regulating student outcomes through condition B3 from October 2022.⁸
 - The TEF data dashboard showing the measures of student experience, and continuation, completion and progression outcomes used to inform the TEF assessments we intend to undertake in 2023.⁹
 - A data dashboard showing the sector distributions of student outcome and experience measures.¹⁰
 - A data dashboard showing information about the size and shape of each provider's student population.¹¹
10. We have not yet published the additional iteration of the access and participation data dashboard that we set out in the consultation, and our analysis of responses. It remains our intention to publish this later in 2022.
11. Individualised student data files have been supplied to higher education providers via the OfS portal. These contain data relating to a provider's own students and shows how they have been categorised according to the data definitions that follow from conclusion of our consultation. For most indicators and split indicators, they allow providers to determine exactly which students have contributed to our data indicators (and which have not), as well as the nature of that contribution.¹² They help to ensure the transparency of our new regulatory approaches for regulating student outcomes and the TEF, and for the purposes of regulating access and participation.

⁸ See www.officeforstudents.org.uk/data-and-analysis/student-outcomes-data-dashboard/.

⁹ See www.officeforstudents.org.uk/data-and-analysis/tef-data-dashboard/.

¹⁰ See www.officeforstudents.org.uk/data-and-analysis/sector-distribution-of-student-outcomes-and-experience-measures-data-dashboard/.

¹¹ See www.officeforstudents.org.uk/data-and-analysis/size-and-shape-of-provision-data-dashboard/.

¹² Data protection reasons mean that it is not always possible to include linked data from other sources within the individualised files, but we include as much information as possible.

Publication matters

12. Annual publication of the student outcome and experience measures used in OfS regulation was proposed in both the TEF and student outcomes consultations, and our analysis of responses to those consultations indicated that we were 'minded to' proceed with these proposals.¹³ We described that this was because we viewed transparency in respect of student outcome and experience data, and in respect of the regulatory judgements they inform, to be an important principle underpinning our wider regulatory approach.
13. Following the conclusion of the publication of information of consultation, the OfS has established a general OfS policy on the information we normally expect to publish and what factors we will consider when making consultation decisions.¹⁴ We have considered the responses to the publication of information consultation and the outcomes from that consultation, and as a result we have also decided to finalise the 'minded to' decisions we made in July 2022. We have set out our final decisions regarding the publication proposals made in the TEF and student outcomes consultations.¹⁵ These confirm our view that publication of student outcome and experience measures at sector and provider level is in the interests of various users.
14. The consultation on the construction of student outcome and experience measures for use in OfS regulation (the 'data indicators consultation'), in particular proposals 1 and 2, then described a number of features related to any such publication of these measures. We set out in the discussion of publication matters in our analysis of responses to the consultation ('the data indicators response document') that we had decided to adopt the approach set out in these proposals, subject to our consideration of the outcomes of the publication of information consultation and final decisions still to be taken on publication matters.

Publication of information consultation

15. We have reviewed the responses received to the publication of information consultation, and the outcome of that consultation, and considered their relevance to the publication matters set out in our data indicators consultation.
16. We note that there were a number of general points raised by consultees which are relevant to the publication matters set out in the data indicators consultation and response documents.
17. A common theme in responses was the potential reputational damage to providers if the OfS were to publish certain types of information. Although these comments were made in relation to the publication of information about a provider's compliance with conditions of registration, because the interactive data dashboards will be used as part of the assessment for condition

¹³ See our response to Proposal 4 of the regulating student outcomes consultation response, and to Proposal 12 of the TEF consultation response.

¹⁴ See www.officeforstudents.org.uk/publications/consultation-on-publication-of-information-about-higher-education-providers-analysis-of-responses-and-decision/.

¹⁵ See 'Regulating student outcomes: decision on policy approach to publication of information about student outcomes' now published alongside the regulating student outcomes consultation response; and 'Teaching Excellence Framework: decision on policy approach to the publication of information' published alongside the TEF consultation response.

B3 and the TEF we consider that these comments are relevant to our consideration of the presentation and publication of the dashboards. Related to reputational damage were comments about the potential for the publication of information to also damage the commercial interests of a provider.

18. Paragraphs 109 and 110 of our response to the publication of information consultation set out themes about whether publication of information is in the student interest. While some respondents agreed that it could help students to make more informed choices about what and where to study, other respondents questioned whether students could appropriately interpret regulatory information without further context and guidance.
19. Paragraph 113 sets out that many respondents agreed that, in principle, publication of information may be in the public interest, with some commenting that it would help to increase transparency and maintain public confidence in the OfS's regulatory approach and the English higher education sector.
20. Paragraph 148 sets out that many respondents thought that validating information to ensure its accuracy was important, prior to the publication of any information. Some respondents linked this to the need for a consultation or representations process with individual providers in relation to publication decisions.
21. Paragraph 176 set out that some respondents noted it was important for students with protected characteristics to be able to identify where a provider may have a poor track record in providing good outcomes for underrepresented groups of students or those with protected characteristics. It was also suggested that information published by the OfS should be appropriately contextualised to enable students with protected characteristics to make informed choices.

OfS response

22. We note that some respondents to the publication of information consultation questioned students' ability to interpret regulatory information without further contextual information or guidance. These comments were made primarily in relation to information about a provider's compliance with conditions of registration, but we consider they are relevant to the consideration of the publication of dashboards which will be used as part of an assessment of condition B3 and the TEF. These are also related to comments made in response to the student outcomes, TEF and data indicators consultations about the complexity and volume of data and the difficulty for non-expert users in interpreting this. We set out in the data indicators response document that we were intending to make changes to the presentation of our data dashboards in order to allow users to engage with the proposed reporting structure in different 'layers'. We were minded to do this by introducing a dashboard overview that focuses in the first instance on aggregate (rather than split) indicators from the reporting structure.
23. We have considered the issue of potential reputational or commercial damage for a provider and consequential effects on its staff and students. We consider that there is public, provider and student interest in publication of dashboards showing performance in student outcomes measures and we note that the factors set out in section 67A(5) of HERA mean that we will consider the interests of providers and students as well as the risk of information seriously and prejudicially affecting the interests of a provider in decisions about publication.

24. We note points raised about the opportunity for providers to confirm the accuracy of data before it is published and opportunities for representations. Similar points were made in response to the data indicators consultation and we provided a response in paragraphs 125 to 127 of the data indicators response document. We do not consider that new points were made that change our views on this matter. In summary our view is that the existing mechanisms to check and verify the accuracy of data are sufficient, without the need to introduce an additional validation or representations process for the indicators generated from this data.

Decision on separate publications

25. The data indicators consultation proposed that one feature of our publication approach for student outcome and experience measures would be the separate publication of the indicators and split indicators informing the TEF, assessment of condition B3 and in the access and participation data dashboard. While the publications would be separate – and different, on account of differences between the student populations that are in scope of our different regulatory functions – we proposed to adopt the same definitions and use consistent presentations and statistical methods throughout.

26. Consultation responses related to this feature were described at paragraphs 98, 101 to 102, 105, and 161 to 163 of the data indicators response document, and the OfS response was provided at paragraphs 119 to 133, and 205 to 209 of the same document. We continue to take the views expressed there and points were not raised in response to the publication of information consultation that change these views.

27. In particular, we maintain that presenting a comprehensive view of the data on which we have based our judgements is important for the purposes of transparency and understanding of our approaches, and that published resources benefit from being tailored to focus on the data that best meets our regulatory objectives and user needs. We also remain of the view that a single dashboard covering all three views of the data would be more complex than three separate dashboards, and that we would not want to publish data that is irrelevant to a particular function. Furthermore, we continue to consider that the contributions of individual students to student outcome and experience measures remaining unchanged, whether or not they fall into the relevant population for a given function, represents a material improvement to the consistency of our approach.

28. We have therefore decided that we will proceed with the approaches we previously indicated we were minded to adopt. Specifically, we will normally expect to publish:

a. Publish the following data dashboards:

- i. **Student outcomes to support assessment of condition B3:** including indicators on continuation, completion and progression. This dashboard will cover a range of views of a provider's student populations, as well as undergraduate and postgraduate students.
- ii. **TEF:** including indicators on continuation, completion and progression outcomes, and student experience drawn from the National Student Survey (NSS). This dashboard will be restricted to the taught or registered view for undergraduate students only.

- iii. **Access and participation:** including indicators on access, continuation, completion, degree outcomes and progression. This dashboard will be restricted to the registered view for UK-domiciled undergraduate students only.
 - iv. **Size and shape of provision:** including student number counts in respect of a provider's size, the types of courses it offers and its mix of subjects, and the characteristics of its students. This dashboard will cover a range of views of a provider's student populations, as well as undergraduate and postgraduate students. Because this data serves the same purpose in respect of its use in several of our regulatory functions, and is defined consistently across each, this will be published as a single dashboard.
 - v. **Sector distributions of student outcomes and experiences:** including indicators on continuation, completion and progression outcomes, and student experience drawn from the NSS. This dashboard will be restricted to the taught or registered view for undergraduate students only.
- b. Provide clear guidance on each of the dashboards and how the dashboards relate to each other, including on where there are differences in coverage reflecting the different processes that they are designed to support.
 - c. Make changes to the presentation of our data dashboards and workbooks, to simplify the ways in which users navigate and engage with each set of the indicators and split indicators we publish. This includes restructuring the data dashboards to provide the information in different 'layers', and improved signposting to user support materials or navigation aids. It also includes making clearer within the data workbooks which indicators and split indicators have been omitted from the data dashboards altogether on the basis that they do not contain any students (within the data workbooks released alongside the consultation these instances were indistinguishable from those that contained fewer than 23 students). We expect to keep the presentation of the data dashboards under review and welcome feedback on an ongoing basis to continue to improve the experience for users.

Decision on publication formats

29. Another feature of our proposed publication approach for student outcome and experience measures was the publication of the indicators and split indicators will be represented in a set of interactive data dashboards and data workbooks. The interactive dashboard was intended as the primary route for stakeholders to engage with the data, which would be supported by an Excel data workbook representing the same information in a tabular format. The inclusion of data files in portable formats (such as XML, CSV or similar) was intended to facilitate onward analysis and processing of the data.
30. Consultation responses related to this feature were described at paragraph 98 of the data indicators response document, and the OfS response was provided at paragraph 122 of the same document. Having taken account of responses to the publication of information consultation we continue to take the views expressed there. We recognise the value that providers and other users gain from the availability of data in different formats, in terms of onward use of the information for their own purposes. We place particular weight on our

responsibilities, as a producer of official statistics, to use appropriate ways to communicate data and statistics effectively with the widest possible audience so we are committed to presenting and releasing data and statistics in ways that meet a variety of needs.

31. We have therefore decided that we will proceed with the approaches we previously indicated we were 'minded to' adopt. Specifically, we will represent student outcome and experience measures through interactive data dashboards along with the same information reported through Excel data workbooks and other portable data files (including CSV and, in due course, XML or JSON formats).

Decision on publication content

32. Our consultation proposals collectively described the construction of data resources that span a number of student outcome and experience measures, reported on the basis for different views of a provider's student population, in the form of a comprehensive set of indicators and split indicators. Our analysis of responses to the consultation confirmed our decision to proceed with the proposals broadly as we set out in the consultation (and the supporting publication of the definitions in algorithm form), with some specific amendments. Some of those specific amendments related to the content of the data resources to be published, and we indicated that we were minded to make a number of changes to the content of our publications. Having considered the responses to the publication of information consultation we have decided to proceed with the approaches we previously indicated we were 'minded to' adopt:
 - a. The partnerships view of a provider's student population would not be published within our data dashboards in the first year of operation of the new approach to regulating student outcomes. Our reasoning for this is set out in paragraph 191 of the data indicators response document, in which we recognised a series of data limitations in relation to partnership arrangements and the challenges involved in identifying and addressing these, on account of a reliance on student data returns submitted by other providers. Our reasoning remains unchanged, and we therefore confirm that we will proceed with this approach. We continue to anticipate that the partnerships view would be published in later years in order to support our regulation of student outcomes, and expect to take steps to improve data quality or reduce barriers to data access relating to partnership arrangements.
 - b. Publish an extended time series in the access and participation data dashboard up until spring 2024, starting with an additional publication of the dashboard later in 2022. Our reasoning for this is set out in paragraphs 221 to 222 of the data indicators response document. It described our view that it is appropriate that we mitigate the possibility that data changes impact on the monitoring of targets and milestones (and activities that providers are undertaking to deliver against them) that have previously been established in approved access and participation plans. Our reasoning remains unchanged, and we therefore confirm that we will proceed with this approach.
 - c. Publish additional information in our data dashboards providing information about the size and shape of provision at each provider, which will report on the number and proportion of students on higher education courses that would not be recognised for OfS funding purposes (whether or not the provider itself is eligible for

OfS funding). Our reasoning for this is set out in paragraphs 257 to 264 of the data indicators response document. It included our view that publishing additional information about courses that would not be recognised for OfS funding would support users to acknowledge the potential influence of such courses on both provider performance in relation to student outcomes, and the completeness of coverage for the current NSS and GO survey instruments. Our reasoning remains unchanged, and we continue to take the view that publishing additional course type information in our size and shape of provision data dashboards would support providers and other users in understanding this potential influence. We therefore confirm that we will proceed with this approach. Paragraphs 34 to 35 of this document describe consequential decisions we have taken since July 2022 related to the identification of courses ineligible for OfS funding.

- d. Publish additional information in our data dashboards, which will report on the number and proportion of students who counted negatively towards the progression indicator but reported in their response to the Graduate Outcomes survey that they had undertaken interim study. Our reasoning for this is set out in paragraphs 627 to 634 of the data indicators response document, which described why we still consider it appropriate not to treat interim activities as a positive outcome in the definition of the progression measure. However, it also acknowledged that publication of additional data (separately from the progression measure) may provide valuable context for students who have followed certain courses and could support users in understanding the potential influence of these interim activities on a provider's performance in relation to student outcomes. Our reasoning remains unchanged, and we therefore confirm that we will proceed with this approach. Paragraphs 36 to 42 of this document describe consequential decisions we have taken since July 2022 related to the definition of interim study.

Consequential decisions which follow from those on publication matters

33. Paragraph 32 describes the need for us to take consequential decisions that follow from the decisions to publish additional information in our data dashboards. The additional information described in paragraph 32c requires that we confirm the definition to be used to identify students on higher education courses that would not be recognised for OfS funding purposes. Similarly, the additional information described in paragraph 32d requires that we confirm the definition to be used to identify students who counted negatively towards the progression indicator but reported in their response to the Graduate Outcomes survey that they had undertaken interim study. In both cases, we confirm that we will use existing definitions which have been established for other purposes.

Identifying courses eligible for OfS funding

34. The definition we have decided to use to identify courses which are and are not eligible for OfS funding is the one used for the purposes of calculating OfS funding allocations. We consider that there is no viable alternative to this definition, which is described at paragraphs 1-2 of Annex B of 'Higher Education Students Early Statistics Survey 2022-23 (HESES22)'.¹⁶ We also

¹⁶ See www.officeforstudents.org.uk/publications/heses22/.

consider that use of a definition directly aligned with one used in our funding allocations is appropriate for the purposes of understanding the potential influences on student outcomes that consultation respondents described with respect to the nature and funding of these courses.

35. We note that the definitions and corresponding algorithms for identifying courses eligible for OfS funding were introduced to inform the first allocation of teaching funds by the OfS as a new organisation in 2018. This allocation of teaching funds, for 2019-20, was informed by the number of students studying in 2018-19 and the data returns that relate to this period.¹⁷ While the algorithms for identifying courses eligible for OfS funding were therefore first implemented with respect to 2018-19 student data, they can be replicated for the 2017-18 data which represents the first year of data contributing to the size and shape of provision data. The variable IPOFSFUNDAIM within the 'Core algorithms' document provides this definition.

Definition and reporting of interim study activities

36. Having decided to publish additional information about graduates' interim study activities prior to the Graduate Outcomes survey census date, we have considered the definitions and approach we will use to do this.
37. As we described in our analysis of responses to the consultation and decisions, the additional information will focus on the students who counted negatively towards the progression indicator but reported in their response to the Graduate Outcomes survey that they had undertaken interim study. We consider that this focus is appropriate for the purposes of contextualising progression outcomes for students who have followed certain courses where further study is common but may involve those instances of further study ending before the survey census date. In particular, we take the view that reporting this information in respect of students who already count positively towards the progression indicator would create the potential for misunderstanding and misuse of the data when used to contextualise progression outcomes.
38. We note that consultation respondents described various ways in which different types of interim study activities might interact with the survey census date and influence the student outcomes reported through the progression indicator. This included discussion of interim study on one-year courses leading to the award of a qualification or professional practice, separately from discussion supporting an inclusive approach to interim study activities – on the basis that this would mirror the definition of the progression indicator itself, in which any further study activities at the census date count positively. We consider that there is merit to both of the viewpoints expressed by respondents, and that additional information based on both interpretations of interim study activities would provide valuable information for users. We have therefore decided that the additional information we publish about interim study activities will report two figures:
- a. The number and proportion of students who counted negatively towards the progression indicator but reported in their response to the Graduate Outcomes survey that they had undertaken **any** interim study.

¹⁷ See www.officeforstudents.org.uk/publications/heses18-higher-education-students-early-statistics-survey-2018-19/ and the 'Classifying learning aims technical document' published for the 2018-19 ILR data checking tool at www.officeforstudents.org.uk/data-and-analysis/data-checking-tool/documentation-archive/.

- b. The number and proportion of students who counted negatively towards the progression indicator but reported in their response to the Graduate Outcomes survey that they had undertaken **significant** interim study.

39. To maximise the value of the additional information for users, we confirm that the figures will be reported for each breakdown of the student population represented by the indicators and split indicators. On this basis, we consider that this additional information is best published within the student outcomes, TEF and access and participation data dashboards alongside the indicators and split indicators to which it corresponds. We take the view that publishing the additional information separately, or within the size and shape of provision data, would make the information more difficult for users to access and engage with. However, we will be clear within our presentation of the data that this information is to be considered separately from the progression indicators and split indicators. We will be clear that – for the reasons described in our analysis of consultation responses – these interim study activities do **not** count as a positive progression outcome in our regulatory approaches, in particular for the purposes of measuring a provider’s performance with reference to the minimum numerical thresholds for condition B3.
40. We are mindful of the volume of data that is created by our student outcome and experience measures, and of respondents’ comments on this. However, we consider that the nature and role of this information (as providing context for the progression outcomes of students who have followed certain course types) warrants the inclusion of both of the figures described in paragraph 38. We anticipate that the value they each have the potential to provide for contextualising student outcomes means that the availability of the additional information at the level of indicator and split indicator populations ultimately helps to limit the burden of understanding students’ progression outcomes and engaging with our regulatory approaches to these.
41. It should be noted that the figures described in paragraph 38b will be a subset of those described in paragraph 38a, meaning that the two figures will need to be considered separately and users should not add the two together. We consider that it will be important that this understanding is clearly conveyed to users through the presentation of the information and in any accompanying guidance we publish.
42. The definitions we will use to construct the two figures described in paragraph 38 are ones established by HESA in annual publications of Graduate Outcomes survey responses. We consider that users will benefit from our use of established definitions in terms of the burden of understanding and engaging with the data that we are constructing. The students who count negatively towards the progression indicator are defined through our original consultation proposals and are provided by the variable IPEMPIND within the ‘Core algorithms’ document. We will identify whether any of these students reported any interim study through their Graduate Outcomes survey response using the FURSTU variable.¹⁸ We will identify whether any of these students reported significant interim study using definitions consistent with the HESA derived field XINTSTUDY as it was defined for the 2019-20 Graduate Outcomes survey:

¹⁸ See www.hesa.ac.uk/collection/c19072/a/furstu or, equivalently, IPGOINTSTUDY = FT, PT or OTH within the OfS ‘Core algorithms’ document.

the definition is provided by the variable IPGOSIGINTSTUDY within the 'Core algorithms' document.¹⁹

Benchmarking factors

43. The use of benchmarking as an approach to help interpret a provider's performance was proposed in both the TEF and student outcomes consultations.
44. Proposal 10 of the consultation on construction of student outcome and experience measures for use in OfS regulation then made a series of proposals about the definition and coverage of the benchmarking factors that would be used, including a set of proposals for selecting and grouping benchmarking factors. The consultation also set out the proposed inclusion of ABCS groups as benchmarking factors for each of the continuation, completion and progression measures, but noted that the ABCS analyses were, at that time, only available with respect to continuation outcomes. Proposal 10 described our intention to extend the ABCS method to the later points of the student lifecycle and to incorporate them within the benchmarking of completion and progression outcomes for the first implementation of our new approaches to assessment of condition B3 and the TEF.
45. Our analysis of responses to the TEF and student outcomes consultations confirmed that benchmarking will be used in those regulatory approaches: to inform the minimum numerical thresholds set for condition B3, as evidence considered to understand the context in which a provider is operating for the purposes of assessing compliance with condition B3, and to help account for the characteristics of a provider's students and the type of courses it offers when assessing excellence above our minimum requirements through the TEF.²⁰
46. Our analysis of responses to the consultation on student outcome and experience measures confirmed that we have adopted the approach set out in proposal 10, including the benchmarking method to be used, the definition of the sector used by that method to calculate the benchmarks, and the principles we will follow for selecting and grouping benchmarking factors.
47. However, all three consultation responses noted that we were not, at the time, taking final decisions on the selection and grouping of benchmarking factors. While we were minded to proceed with the proposed benchmarking factors with no change, we set out the need to construct the final indicators, and the ABCS analyses related to the completion and progression stages of the student lifecycle (which rely on the definition of the measures that were consulted on), before we could take final decisions on these matters.
48. Our analysis of responses to the student outcome and experience measures consultation also set out (at paragraph 832 of that document) that we intended to prioritise the inclusion of ABCS as a benchmarking factor for continuation, completion and progression measures. This was because, as an intersectional measure of student characteristics, its use was expected to achieve an appropriate balance between the statistical integrity of the benchmarking method

¹⁹ See www.hesa.ac.uk/collection/c19072/derived/xintstudy.

²⁰ See our response to Proposal 5 of the regulating student outcomes consultation response, and to Proposal 9 of the TEF consultation response.

and taking appropriate account of student characteristic factors that have material effects on the student outcomes we are measuring.

49. We also noted, in paragraphs 833 to 835 of that document, that it was only after the final indicators, and the ABCS analyses related to the completion and progression stages of the student lifecycle, became available that we could assess whether the factors and groupings we proposed for the completion and progression measures continue to maintain the statistical integrity of the benchmarking approach. In particular, we noted that we would need to assure ourselves that the number of unique benchmarking groups does not become so large that the potential for self-benchmarking increases to unmanageable levels, at which point the calculated benchmarks would become ineffective. This is important for the reasons given in paragraphs 423 to 429 of the consultation document, and reflected in the principles for the selection and application of benchmarking factors.²¹
50. In particular, the risk of self-benchmarking arises when benchmarking groups are defined at such a detailed level that only very small numbers of students possess each unique combination of the student and course characteristics that we have selected to act as benchmarking factors. In such a scenario, the provider's own students would be making a substantial contribution to the calculation of its benchmark making the calculation less robust and the resulting benchmark value less meaningful. We remain of the view that it is essential that this risk is minimised to the extent possible. However, we are also aware that the diversity of the higher education sector means that we cannot mitigate this risk entirely and our proposed benchmarking factors tolerate a risk of self-benchmarking on a small scale.
51. The level of self-benchmarking that was anticipated, and which we considered tolerable, by our consultation proposals was summarised in Tables 11 and 12 of the January 2022 benchmarking factors review.²² We noted in paragraph 429 of the consultation document that, where the self-benchmarking risk presents a material issue for a given provider, we anticipate that the provider will normally be sufficiently distinctive that any alternative benchmarking approach would be limited in its effectiveness. We continue to take the view that the ways in which we take account of the context of any such provider in our assessment approaches, and the availability of information about the provider's own contribution to the benchmark, mean that we are able to place less weight on the benchmarks in these cases.
52. Our analysis of responses to the student outcome and experience measures consultation set out (at paragraph 834 of that document) that it would be necessary for us to reconsider the groupings we had proposed for each of the factors in the event that inclusion of ABCS groups were to compromise the statistical integrity of the benchmarking method. We noted that, in doing so, our reconsideration would be in line with the principles for selecting and grouping benchmarking factors, and would seek to reduce the granularity of some factors in order to maintain acceptable levels of self-benchmarking.

²¹ In particular, the principles described at paragraphs 4c, 4f, 6e, 7b and 7c. See Annex X of 'Description of student outcome and experience measures used in OfS regulation: Definition of measures and methods used to construct and present them' at www.officeforstudents.org.uk/data-and-analysis/institutional-performance-measures/technical-documentation/.

²² See www.officeforstudents.org.uk/publications/review-of-selection-and-grouping-of-benchmarking-factors/.

53. We also noted that final decisions on benchmarking factors would consider comments from respondents regarding all of the benchmarking factors, as discussed in paragraphs 790 to 805 of our analysis of responses to the consultation.

Evaluation of the benchmarking factors to support final decisions

54. Following the final decisions taken in July 2022 on definition of the student outcome and experience measures, the OfS have now constructed the final indicators and the ABCS analyses related to the completion and progression stages of the student lifecycle.²³ The latest ABCS analyses also include improvements to the methodology, to assign students domiciled in Wales, Scotland and Northern Ireland to ABCS quintiles across all stages of the student lifecycle, including continuation. The final indicators are also each now informed by one more recent year of student data than was available at the time of preparing our consultation proposals.²⁴ It has therefore now been possible for us to review whether the factors and groupings we proposed for the completion and progression measures continue to maintain the statistical integrity of the benchmarking approach.

55. We consider that the review of the selection and grouping of benchmarking factors published in January 2022 alongside the consultation remains relevant.²⁵ Having made final decisions to adopt the principles for the selection and application of benchmarking factors, we consider that a review methodology which relied upon these provides an important and reliable starting point for further consideration. That review methodology involved establishing a **longlist** based on potential factors that could be drawn from existing data sources and then considering the results of statistical modelling and policy objectives to test these against the principles for the selection and grouping of benchmarking factors and create a **shortlist**. It then involved determining the **proposed** benchmarking factors by prioritising from the shortlist on the basis of further statistical modelling and the principle that the number and definition of the factors should not compromise the statistical integrity of the broader benchmarking approach. We therefore consider that the review methodology was designed to achieve an appropriate balance of the policy considerations and statistical properties associated with a range of candidate benchmarking factors, and relied on the benchmarking factor principles to help manage the tensions between the two.

56. However, in light of the improvements to the ABCS methodology, and the availability of more recent data, we have considered it prudent to include all of the student outcome and experience measures in our evaluation of the benchmarking factors to support final decisions. In doing so, we have replicated several of the steps involved in the January 2022 benchmarking factors review and taken account of comments from respondents on particular benchmarking factors, which were included at paragraphs 790 to 805 of our analysis of responses to the consultation. We consider that this approach is reasonable to inform final decisions which achieve an appropriate balance between the influence of consultation

²³ See the latest ABCS analyses at www.officeforstudents.org.uk/data-and-analysis/associations-between-characteristics-of-students/.

²⁴ We have continued to aggregate the four most recent years of available data, but the entire time series has moved forward by one year. This aligns with the years of data included within the indicators that have been published to inform assessments of condition B3 and the TEF.

²⁵ See www.officeforstudents.org.uk/publications/review-of-selection-and-grouping-of-benchmarking-factors/.

feedback and the agreed principles for the selection and application of benchmarking factors. For the progression measures this means that the evaluation is based on three years of data rather than two.

57. Our evaluation of the benchmarking factors to support final decisions has involved three steps. For the first step (Step 1) we have repeated the statistical modelling which, in the January 2022 benchmarking factors review, looked at the shortlisted factors to help establish which of these would be prioritised to form the proposed benchmarking factors. In doing so, we have included year as a shortlisted factor for all of the student outcome and experience measures in order to assess whether any material change over time (such as the impact of the coronavirus pandemic) is evident in these measures. We otherwise consider that the shortlisted factors represent a reasonable starting point for our evaluation of the benchmarking factors to support final decisions, and that the previous evidence informing construction of both the longlist and the shortlist of candidate benchmarking factors remains valid and relevant. We also note that comments from respondents on specific benchmarking factors related to factors which had been shortlisted for one or more of the student outcome and experience measures. The aim of Step 1 was to determine whether the results of statistical modelling based on shortlisted factors remain consistent with the previous review. This allows us to determine whether there is evidence to suggest that there is a reduced fit of the proposed benchmarking factors with the statistical properties described within the principles for the selection and application of benchmarking factors.
58. The second step (Step 2) aimed to determine whether the benchmarking factors and groupings we proposed in the consultation continue to achieve an appropriate balance of the policy considerations and statistical properties. We considered:
- a. Step 2a: Consultation responses about specific benchmarking factors, which have the potential to influence how we prioritise from the shortlisted factors to determine the final benchmarking factors.
 - b. Step 2b: Analysis to support an assessment of the statistical integrity of the benchmarking approach. This step considers statistical modelling of the benchmarking factors proposed in the consultation, and also repeats the analysis approach taken in the review of selection and grouping benchmarking factors published alongside the consultation, and includes:
 - i. The theoretical number of distinct benchmarking groups.
 - ii. The actual number of distinct benchmarking groups with at least one student.
 - iii. The number of populated benchmarking groups that contain relatively few students (i.e. those with five or fewer students, or 20 or fewer students).
 - iv. The actual contribution to benchmark for each provider.
59. The final step (Step 3) was needed in the event that Step 2 identified that the statistical integrity of the benchmarking approach could not be maintained. As described at paragraph 834 of our analysis of responses to the consultation, the final step, if needed, would reconsider the groupings we had proposed for each of the factors. In doing so, where necessary, we would seek to reduce the granularity of some factors in order to maintain acceptable levels of self-

benchmarking, and the resulting final decisions would be taken in line with the principles for selecting and grouping benchmarking factors.

60. We describe the outcomes of each step of our evaluation of the benchmarking factors in the following sections of this document and confirm how these have supported final decisions on the selection and grouping of benchmarking factors for each of the student outcome and experience measures. We have also published the results of the statistical modelling that has informed our considerations at Steps 1 and 2.²⁶

Step 1

61. In Step 1 we have produced statistical models based on the factors that were shortlisted by the January 2022 benchmarking factors review. This includes year as a shortlisted factor for all student outcome and experience measures, to assess whether any material change over time (such as the impact of the coronavirus pandemic) is evident in these measures, and the new ABCS quintiles for student outcomes measures. Factors have generally been included with the same groupings as were used in the original shortlist modelling, however the geography of employment quintiles have not been grouped to allow us to revisit the proposed grouping, following the availability of new data and the consultation responses. Separate models were produced for each measure in each mode of study.
62. Table 1 summarises the results of these statistical models and shows the maximum size of the estimated differences (for the attribute with the largest significant difference in each case) for each of the shortlisted factors, by measure and mode of study. It aims to provide an indication of the relative correlation with the outcome measured. Our analysis showed significant consistency of the factors that were correlated across the NSS scales that are used to construct the student experience indicators so, for brevity, Table 1 only shows the results from the 'teaching on my course'. Full results are available for these models of shortlisted factors are in the accompanying results workbooks.²⁷

Table 1: Maximum estimated differences for the shortlisted factors, by indicator and mode of study

Key: Cells marked with **grey shading** identify factors not shortlisted for a particular indicator or mode. Cells showing '-' indicate no significant differences for that factor. Estimated differences in brackets correspond to populations of fewer than 5,000 students, where the difference shown in the same cell without brackets is the largest estimated difference for populations of at least 5,000. For some factors, unknown or NA categories were included in the modelling, but these were not considered when identifying the largest estimated differences for each factor.

²⁶ See the data files available under 'Modelling results to support final decisions on benchmarking factors and groupings' at www.officeforstudents.org.uk/publications/review-of-selection-and-grouping-of-benchmarking-factors/.

²⁷ *ibid*

Maximum estimated differences (percentage points, significant at the 95 per cent level only)	Continuation		Completion		Progression		Student experience (teaching on my course scale)	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Age on entry	1.2	1.4	0.9	0.6	2.8	-	6.3	3.7
Associations between characteristics of students (ABCS) quintile	6.4	11.7	13.4	9.6	10.4	10.1		
Deprivation quintile (IMD)	0.5	2.0	0.5	2.2	0.7	-		
Disability	0.9	2.3	1.2	2.8	0.5	2.1	1.6	2.3
Eligibility for free school meals	2.0	8.4	1.1	-(8.8)				
Entry qualifications	12.3	15.6 (21.9)	19.2	15.3	12.6	4.3	4.0	-
Ethnicity	0.2	1.4	0.4	1.7	3.0	4.4	2.4	1.5
Expected course length in years and short course		3.6	6.5	12.3				
First degree course with integrated foundation year	4.9		11.1					
Geography of employment quintiles					6.2	3.8		
Level of study	4.2	5.1	5.1	0.5	4.9	1.5	4.6	-
Location of study	3.2							
Sex	2.2	3.2	1.7	2.4	0.3	2.2	1.1	-
Subject	2.2	12.7 (18.4)	4.4	12.2 (16.3)	26.0	6.9 (21.5)	9.4	7.1
Year	0.9	4.5	-	1.5	2.4	1.1	4.3	2.6

63. While Table 1 reports only the maximum size of the estimated differences per factor, there are significant nuances in the underlying data that cannot be succinctly summarised here. This includes understanding the proportion of attributes with statistically significant estimated differences and the relative population sizes across attributes.²⁸
64. We conclude, from Table 1 and from our consideration of the full results provided in the accompanying workbooks, that the results of statistical modelling based on shortlisted factors remain consistent with those previously reported in the January 2022 benchmarking factors review. We consider that the proposed benchmarking factors continue to demonstrate strong correlation with the student outcomes and experiences we are measuring, and that there is no evidence to suggest a reduced fit of the proposed benchmarking factors with the statistical properties described within the principles for the selection and application of benchmarking factors.
65. In particular, we note that the ABCS quintiles show that this factor had one of the largest statistically significant estimated differences across all measures and modes of study. We take the view that this reinforces the July 2022 decision to prioritise ABCS as a benchmarking factor for all of the student outcome measures. Based on the full results shown in the accompanying workbooks we are, at this step of the evaluation, minded to include the ABCS quintiles as benchmarking factors for continuation, completion and progression outcomes and, in each case, to create benchmarking factor groupings based on each quintile individually. We consider that this is important because of the large, but markedly different, sizes of the estimated differences across all of the attributes (quintiles) modelled for this factor. We note that the sizes of these estimated differences are comparable to, or greater than, the size of the estimated differences for other shortlisted factors that were prioritised and proposed as benchmarking factors in the consultation.

Step 2a

66. As described in paragraph 58a, the second step of our evaluation of the benchmarking factors involved consideration of comments from consultation respondents on specific benchmarking factors. As described in our analysis of responses to the consultation, many respondents expressed support for the proposed benchmarking factors and groups without commenting on individual benchmarking factors. Where specific comments were made these were summarised in paragraphs 790 to 805 of that document: we repeat and respond to them below.

Consultation responses

Student characteristics and 'Associations Between Characteristics of Students' (ABCS)

67. Many respondents supported the proposal to use ABCS as a benchmarking factor for student outcome measures, rather than using individual student characteristics or measures of disadvantage. Some respondents recognised that its use would achieve an appropriate balance between the statistical integrity of the benchmarking method and taking appropriate account of student characteristic factors that have material effects on the student outcomes we

²⁸ As described at paragraphs 29 to 31, and 160 to 163, of the January 2022 benchmarking factors review, differences were estimated from statistical models with uncertainty, as indicated by 95 per cent confidence intervals. The 95 per cent significance level was primarily chosen to be illustrative of the observable statistical uncertainty. It also provides a tolerance of 'Type II' errors that suits our uses on this occasion, based on our expert judgement.

are measuring, and also considered it advantageous that it would enable a more nuanced consideration of intersectionality.

68. Some respondents were concerned about using ABCS as they noted it was relatively a new concept to the sector, was still being developed and was only available for the continuation measure at the time of the consultation. One respondent commented that by benchmarking by any student characteristic or ABCS you could be effectively controlling for disadvantage, thereby conflicting with the OfS objective that all students 'should have the same experience' regardless of their background.
69. Some respondents commented on the proposal to not incorporate individual student characteristics as a benchmarking factor for student outcome measures, including that:
- a. These characteristics had a direct impact on outcomes; one respondent suggested it may be incoherent to use individual student characteristics as factors for the student experience measures but not the student outcomes measures, given that they must impact on both outcomes and experience.
 - b. The impact on some student groups, particularly underrepresented groups, had been exacerbated by the pandemic, and because these student characteristics were not proposed as benchmarking factors, the respondent considered that the benchmarks would fail to take appropriate account of this external influence over their outcomes and experiences.
 - c. It could disadvantage providers with a more diverse student population. The respondent did not expand on this comment, but we understand it to refer to their expectation that, if a provider's students often have characteristics that have historically correlated with weaker student outcomes, the provider's benchmarks could be less meaningful when those student characteristics are not explicitly accounted for as benchmarking factors.
70. One respondent sought further information about the proposed approach to including sex as a benchmarking factor for the student experience measures between different modes of study.

Subject of study

71. While many respondents welcomed the use of subject of study as a benchmarking factor across all measures, and noted its key role in influencing some student outcomes, some respondents noted that subjects were grouped differently across the different measures. We understand their point to be that it would be easier for users to understand the nature of comparisons being made through benchmarking if the benchmarking groupings were consistent across all measures. In addition, a small number of respondents suggested that some providers' subject coding can sometimes lead to subject groupings that were not coherent or did not make practical sense, which they considered can reduce the relevance of the benchmark in some cases
72. A small number of respondents made alternate suggestions to the proposed subject grouping including:
- a. That vocational subjects should be benchmarked separately, particularly for progression measures where outcomes from these subjects may not be classified as positive in OfS measures. We understand their point to be that within some subject

groupings there are vocational subjects being compared with non-vocational subjects through benchmarking.

- b. The principle applied to ABCS and geography of employment grouping should be applied to subject grouping so that it uses modelling to group CAH3 areas into quantiles, based on observed rates and distinct subject groups, to reduce the risk of self-benchmarking.

Entry qualifications

73. Some respondents expressed their support for our proposals to use qualifications on entry as a benchmarking factor for student outcome measures because it was important to recognise the different starting points of students when considering their outcomes.
74. One respondent suggested that the approach to grouping entry qualifications could disproportionately affect providers with large proportions of students from the devolved nations or international students, which are large groups where students could have varying outcomes. They suggested that this could reduce the relevance of the benchmark
75. Some respondents suggested that, across all measures, benchmarks should account for students on courses with an integrated foundation year. Their view was that benchmarking only by entry qualifications was not sufficient to differentiate the performance for these students, which could reduce the relevance of the benchmark.

Level of study

76. A point was made by one respondent in relation to the proposed approach to grouping students according to their qualification aim, rather than qualification awarded, for the purposes of benchmarking the progression measure by level of study. They considered that this combined the performance of students who qualified with the same award as originally aimed, with those who qualified with a lower award, and as the outcomes would not be comparable this would reduce the relevance of the benchmark.

Year

77. Some respondents expressed support for our proposal to include the year of survey and year of qualification as a benchmarking factor for student experience and progression measures, agreeing with our rationale that there could be differential impact of the pandemic across student cohorts.

Geography of employment quintiles

78. Many respondents expressed their support for our proposals to incorporate geography as a benchmarking factor for the progression measure because of the impact of geographical area on graduate opportunities. However, some respondents considered that the factor itself would not fully articulate the underlying impact of geography on outcomes and how providers contribute to local growth, social mobility and local provision.

Course length

79. A small number of respondents commented on the proposed use of course length as a benchmarking factor for part-time courses, describing that using a binary split, of less than one year or otherwise, is insufficient given the range of course lengths across the sector for part-time provision. One gave an example that the proposed approach would lead to the comparison of two-year courses with six-year courses.

Location of study

80. Some respondents suggested that benchmarks for student experience measures should account for students' location of study. They described that there could be a differential impact on student experience based on the locations of students (and which campus they are taught at) and a difference of experience for commuting students, particularly in London.

OfS response

Student characteristics and 'Associations Between Characteristics of Students' (ABCS)

81. As described in our analysis of responses to the consultation, we note that the value of ABCS as a benchmarking factor was recognised by consultation respondents, and we continue to take the view described in paragraphs 832, and 840 to 843 of that document, that inclusion of ABCS as a benchmarking factor should be prioritised. As an intersectional measure of student characteristics which is designed to differentiate those individuals with combinations of student and background characteristics that identify them as being least likely to achieve the higher education outcome in question, we consider that it is a valuable and effective means of accounting for the material differences that our benchmarking method seeks to adjust for. That it allows us to do so via inclusion of a single factor, rather than five or more separate factors, helps to preserve the statistical integrity of our benchmarking method.
82. We continue to take the view expressed in the consultation and based on the January 2022 benchmarking factors review, that it is not possible for us to include all of the student characteristic factors which demonstrate material effects individually, in addition to factors which account for level and subject of study, and entry qualifications, without compromising the statistical integrity of the benchmarking approach. Use of ABCS therefore also avoids alternative approaches in which we make an arbitrary selection of a single student characteristic to use in benchmarking, or else take no account of student characteristics at all.
83. As noted in paragraph 65 above, the updated statistical modelling based on the shortlisted factors shows that there are statistically significant estimated differences for most of the ABCS quintiles when they are included individually for all of the models constructed for continuation, completion and progression outcomes. **We are therefore minded, at this step of the evaluation, to continue to include individual ABCS quintiles as benchmarking factors for the continuation, completion and progression measures.**
84. While we recognise that the application of sex is inconsistent by mode of study for student experience measures, **we remain of the view that it is appropriate to only include sex as a benchmarking factor for full-time student experience measures.** As shown in Table 1, it remains true that for part-time student experience measures there are no material differences identified for sex within the updated statistical modelling based on the shortlisted factors.

Subject of study

85. We have considered the points made by respondents about the inclusion of subject and the different treatment across indicators. As set out in the principles for the selection and application of benchmarking factors, we agree that we should be consistent in our use of factors where possible. However, we also recognise that the number of possible subject factors is large and, as discussed in paragraphs 86 to 89 below, using a consistent set of subject groupings would involve significant compromise. Using the same groupings for all measures would mean that some benchmarks took better account than others of the extent of variation in student outcomes and experiences by subject. It would also mean that the benchmarks

constructed for some measures would be more statistically robust than others, with a greater likelihood of benchmarking factor groupings covering very small or very large student populations, thereby compromising the statistical integrity of the benchmarking. It would therefore represent a poor fit with several of the agreed principles for the selection and application of benchmarking factors. **We therefore conclude that it is appropriate to use different subject groupings for different indicators.**

86. We have considered the suggestion that we should include a factor or grouping for vocational subjects. Work conducted by the Higher Education Funding Council for England (HEFCE) shed light on the extent to which certain subjects were vocational and highlighted that a wide range of subjects were highly vocational and there was no clear boundary.²⁹ Therefore, we do not accept that subjects neatly partition into vocational and non-vocational; we conclude that the effects of subject are best addressed through including individual subjects in the benchmarks.
87. We recognise that different subject aggregations – at any level of the Common Aggregation Hierarchy (CAH) – carry some risk that differences across similar courses are masked through their aggregation into the broader grouping. However, we continue to take the view that there is no single subject aggregation that would avoid the need to compromise on either the granularity or the practical utility of the data. While more detailed categorisations may reduce the risk of differences being masked through aggregation, we consider that this is not a viable option because the resulting data sparsity would significantly increase the risks of self-benchmarking and severely compromise the utility of the data for the intended purposes. Equally, we do not consider that there is any subject aggregation that would accommodate the many and varied internal structures for subjects, faculties and departments within providers across the sector.
88. We recognise that adopting a quintile-based approach, using level three of the common aggregation hierarchy, as suggested by one respondent, could potentially improve the statistical qualities of the benchmarks. However, we consider that the suggested approach sits in tension with the principle for benchmarking factor groups that attributes in the grouping should make practical sense and form coherent groups which share a qualitative similarity. We therefore take the view that any statistical benefits here are outweighed by the risk that this would create benchmarking groups which make statistical but not practical sense, and which would lack transparency and compromise user understanding of the methodology and its resulting benchmark values.
89. Furthermore, we note that the updated modelling of the shortlisted factors shows that across all of the student outcome and experience measures, the subject of study groupings included in the modelling typically show statistically significant estimated differences throughout. **We are therefore minded, at this step of the evaluation, to continue to include individual subject groups based on levels of the CAH as benchmarking factors.**

Entry qualifications

90. Inclusion of qualifications on entry in the benchmarks raises similar issues about the balance of statistical robustness and granularity in the benchmarking factors. We recognise that the entry qualifications of international students will vary widely and that there is no accepted method for

²⁹ See

<https://webarchive.nationalarchives.gov.uk/ukgwa/20180319114826/http://www.hefce.ac.uk/pubs/year/2018/201801/>.

assessing the equivalence of qualifications achieved in different countries, particularly within academic levels. We did not receive any suggestions as to how we could account for differential prior achievement for international students. We therefore consider that using a single group for all international students is a reasonable and proportionate approach. We do not accept that the approach to benchmarking has a disproportionate effect on providers that take large numbers of students from the devolved administrations. Students from the devolved administrations are included in the entry qualification groupings in the same way as students from England, and we note that in some cases this may work in a provider's favour as students from Scotland who hold Highers (rather than Advanced Highers) may not map to the highest qualification groups.

91. In light of the comments made by respondents that the use of qualification on entry alone may not fully reflect the preparedness of students, we have revisited the rationale that we set out in paragraph 455 of our consultation. However, we remain of the view that inclusion of qualifications on entry is an appropriate mechanism to account for the preparedness of students to study higher education. We note that our analysis of responses to the consultation has confirmed that we will construct a split indicator for course type which shows full-time first degree courses with an integrated foundation year separately in the data, and that the calculation of benchmarks for each of the split indicators means that differences in student outcomes will be apparent for users.
92. Updated statistical modelling of the shortlisted factors shows that across the student outcome measures, most attributes of entry qualifications continue to have a statistically significant estimated difference. **We are therefore minded, at this step of the evaluation, to continue to include entry qualifications as a benchmarking factor in the same way we proposed in the consultation.**

Level of study

93. In relation to comments from the small number of respondents who thought it would be more appropriate to calculate benchmarks with reference to the level of qualification awarded (rather than the level of their qualification aim), we continue to take the view that it is appropriate to consider the outcomes students achieve relative to outcomes they likely anticipated when they commenced their studies. We do not consider that it would be in students' interests to consider outcomes that follow from the award of interim or exit qualifications as if these had been the outcome in which those students had made financial and other investments, and therefore we do not accept that it should be accounted for in benchmarking. We have considered the numbers of students who leave with a qualification other than the one that they were aiming for and observe that this affects about 5 per cent of students each year. We therefore consider that any effect within the benchmarking – that students who achieved interim awards were being expected to achieve progression outcomes equivalent to those of students who achieved the intended qualification – is outweighed both by the approach favouring the student interest, and the likelihood that the alternative approach would introduce small populations. We note that introducing small populations into the benchmarking method raises the risk of self-benchmarking and that this would compromise the statistical integrity of the benchmarking approach. We also consider that the alternative approach would add to the complexity and burden of understanding and interpreting student outcome and experience measures, especially if it introduced disparity between the approach to determining level of study for the purposes of constructing the indicator and its corresponding benchmark. **We are therefore**

minded, at this step of the evaluation, to continue to include level of study as a benchmarking factor in the same way we proposed in the consultation.

Year

94. We welcome the support for the inclusion of year within the benchmarking factors for student experience and progression. We note that some respondents thought that we should include year as a factor in all of the indicators. Currently, we do not accept that there is evidence that there are significant variations by year in continuation and completion measures, and we note that this is supported by the updated statistical modelling based on the shortlisted factors. We note that our modelling shows there are some larger statistically significant estimated differences for part-time continuation. In response to comments about the potential impact of the coronavirus pandemic in respect of these outcomes, we consider that this modelling finds no evidence of such an impact to date. We also take the view that introducing a factor where there is no evidence of variation would not be aligned with our principles for benchmarking factors and would reduce the statistical reliability of the benchmarks. **We are therefore minded, at this step of the evaluation, to continue to include year as a benchmark factor for student experience and progression measures only.**

Geography of employment quintiles

95. We proposed including the geography of employment quintiles to address concerns raised with us previously that there were regional variations in employment that provide important context when considering progression. The comments received in response to this proposal highlight the tension between accounting for regional variations in employment and not baking in the current regional disparities or discounting providers contributions to social mobility and the economy. We consider that including a factor in our benchmarking strikes the appropriate balance between these tensions and note that the updated statistical modelling of the shortlisted factors shows that the geography of employment quintiles continue to show statistically significant estimated differences. **We are therefore minded, at this step of the evaluation, to continue to include geography of employment quintiles as a benchmarking factor for the progression measure.**

Course length

96. We have considered the points raised about including more granular breakdowns of course length within the benchmarks. We considered this in forming our proposals and have reviewed that decision in light of the comments made in response to the consultation. In forming our consultation proposals, we took the view that inclusion of course lengths for certain measures would allow benchmarking to take some account of the different motivations and circumstances of students on shorter courses. We considered ways of creating benchmarking factor groupings for course length which would help support an approach which maximised the information accounted for through the benchmarks, without risking the statistical integrity of the benchmarking process or the effectiveness of accounting for the differences that initial modelling had indicated across course lengths. We also note that data reporting practices vary in respect of course length for students on part time courses, in part reflecting the greater flexibility afforded part-time students, with a significant proportion of students returned without an expected course length. We take the view that this limits the extent to which we can effectively differentiate by expected course length through benchmarking. We therefore remain of the view that the proposed groupings for this benchmarking factor strike the best balance between recognising differences in outcomes between students on different lengths of course, availability of data and the statistical integrity of the benchmarking.

97. We note that the updated statistical modelling of the shortlisted factors for the completion and part-time continuation measures shows that the proposed course length groupings continue to show statistically significant estimated differences. **We are therefore minded, at this step of the evaluation, to continue to include course length as a benchmarking factor in the same way we proposed in the consultation.**

Location of study

98. We do not accept arguments made by respondents that we should include location of study in benchmarking of our student experience measures. We do not accept that it is reasonable that where in the country a student studies should impact the experience that they have. We have considered whether we should include a factor to reflect students that commute to study and are aware of some studies that show they have worse experiences. While we accept that where students choose to live is largely outside of providers' control we consider it is reasonable that providers with large numbers of commuting students will adapt their course delivery so that such students have the same high quality experience as other students. We note that the statistical modelling has consistently found smaller estimated differences for the attributes of this factor. **We have therefore decided not to include commuter students as a benchmarking factor.**

Step 2b

99. In Step 2b we have produced statistical models based on the factors that were proposed in the consultation. We consider that statistical models produced on this basis are appropriate for the purposes of helping to confirm the final benchmarking factor definitions. Separate models were produced for each measure in each mode of study. This includes models for the apprenticeship mode of study, where the potential for conducting the appropriate statistical modelling is less limited than was the case for shortlisted benchmarking factors.³⁰

100. Table 2 summarises the results of these statistical models and shows the maximum size of the estimated differences (for the attribute with the largest significant difference in each case) for each of the proposed factors, by measure and mode of study. It aims to provide an indication of the relative correlation with the outcome measured. Our analysis showed significant consistency of the factors that were correlated across the NSS scales that are used to construct the student experience indicators so, for brevity, Table 2 only shows the results from the 'teaching on my course'. Full results are available for these models of proposed factors are in the accompanying results workbooks.

³⁰ The consultation noted that the potential for conducting the appropriate statistical modelling for apprenticeship students is more limited due to the more limited spread and characteristics of apprenticeship students across the sector. In technical terms, statistical models which seek to account for the larger number of candidate factors included at the longlist and shortlisted stage do not converge when constructed for apprenticeship students only.

Table 2: Maximum estimated differences for the proposed factors, by indicator and mode of study

Key: Cells marked with grey shading identify factors not proposed for a particular indicator or mode. Cells showing '-' indicate no significant differences for that factor. Estimated differences in brackets correspond to populations of fewer than 5,000 students, where the difference shown in the same cell without brackets is the largest estimated difference for populations of at least 5,000. For some factors, unknown or NA categories were included in the modelling, but these were not considered when identifying the largest estimated differences for each factor.

Factor	Continuation			Completion			Progression			Student experience (teaching on my course scale)		
	Full-time	Part-time	Apprenticeship	Full-time	Part-time	Apprenticeship	Full-time	Part-time	Apprenticeship	Full-time	Part-time	Apprenticeship
Age on entry										6.4	4.1	(9.9)
Associations between characteristics of students (ABCS) quintile	7.1	14.2	(4.8)	15.5	13.2	(15.3)	12.3	11.7	-			
Deprivation quintile (IMD)												
Disability										1.7	2.3	(3.0)
Eligibility for free school meals												
Entry qualifications	13.0	16.1 (22.5)	6.5	19.6	16.3	3.6 (9.2)	12.9	7.0	-			
Ethnicity										4.7	1.5	(5.8)
Expected course length in years and short course		3.6		6.9	12.2							
Geography of employment quintiles							7.5	3.0	-			
Level of study	4.1	5.2 (5.5)	5.4	4.8	-	(11.9)	4.7	1.6	(6.0)	5.1	-	-
Sex										1.2		
Subject	3.3	12.0 (19.5)	7.5 (15.0)	5.2	12.4 (16.6)	(19.8)	26.3	5.2 (19.8)	(2.4)	10.2	7.1	(6.1)
Year							2.5	1.1	-	4.4	2.7	(4.5)

101. While Table 2 reports only the maximum size of the estimated differences per factor, there are significant nuances in the underlying data that cannot be succinctly summarised here. This includes understanding the proportion of attributes with statistically significant estimated differences and the relative population sizes across attributes.³¹
102. We conclude, from Table 2 and from our consideration of the full results provided in the accompanying workbooks, that the results of statistical modelling based on the proposed factors remain consistent with those previously reported in the January 2022 benchmarking factors review. We consider that the proposed benchmarking factors continue to demonstrate strong correlation with the student outcomes and experiences we are measuring.
103. In particular, we note that the statistically significant estimated differences for ABCS tend to be among the largest of the proposed factors. The modelling also shows that the estimated differences for each of the ABCS quintiles are often comparable to, or greater than, the size of the largest estimated differences for other factors that were proposed as benchmarking factors in the consultation. We take the view that this further supports the approach we were minded to adopt at Step 1 of the evaluation of the benchmarking factors to support final decisions. Based on the full results shown in the accompanying workbooks we consider that it will be important to include the ABCS quintiles as benchmarking factors for continuation, completion and progression outcomes and, in each case, to create benchmarking factor groupings based on each quintile individually.
104. We have, at this stage of the evaluation, established that the proposed benchmarking factors (including the use of ABCS quintiles for benchmarking the student outcomes measures) continue to represent a strong fit with our policy objectives and with the first of the statistical properties reflected within the principles for the selection and application of benchmarking factors (which requires that they are correlated with the student outcomes and experiences we are measuring). It is therefore necessary to establish whether those factors and groupings continue to maintain the statistical integrity of the benchmarking approach, and whether the number of unique benchmarking groups results in a level of self-benchmarking similar to that anticipated, and which we considered tolerable, by our consultation proposals.
105. Table 3 shows the number of attributes, combinations, and small groups based on the proposed benchmarking factors. While the statistical modelling at Step 1 has not included apprenticeship students for the reasons given in the consultation, in Table 3 we are able to summarise the number of attributes, combinations and small groups that result from our proposal to use the same benchmarking factors for apprenticeship students as for part-time students.³² As described in paragraph 5858b, this information is intended to support an informed view of the appropriate balance of the relative priority for a factor with the statistical integrity of the benchmarking method as a whole. Our analysis showed significant consistency of the factors that were correlated across the NSS scales that are used to

³¹ As described at paragraphs 29 to 31, and 160 to 163, of the January 2022 benchmarking factors review, differences were estimated from statistical models with uncertainty, as indicated by 95 per cent confidence intervals. The 95 per cent significance level was primarily chosen to be illustrative of the observable statistical uncertainty. It also provides a tolerance of 'Type II' errors that suits our uses on this occasion, based on our expert judgement.

³² The consultation noted that the more limited spread and characteristics of apprenticeship students across the sector limited the potential for conducting the appropriate statistical modelling because the models would not converge.

construct the student experience indicators so, for brevity, Table 3 only shows the results from the 'teaching on my course'.

Table 3: Number of attributes, combinations, and small groups based on the proposed benchmarking factors

Factor	Continuation			Completion (cohort tracking)			Progression			Student experience (teaching on my course scale)		
	Full-time	Part-time	Apprentice-ship	Full-time	Part-time	Apprentice-ship	Full-time	Part-time	Apprentice-ship	Full-time	Part-time	Apprentice-ship
Age on entry										3	3	3
Associations between characteristics of students (ABCS) quintile	6	6	6	6	6	6	5*	5*	5*			
Deprivation quintile (IMD)												
Disability										2	2	2
Entry qualifications	11	5	5	11	5	5	10*	5	5			
Ethnicity										6	6	6
Expected course length		2		3	2							
Geography of employment quintiles							3	3	3			
Level of study	4	3	3	4	3	3	3	3	3	3	3	3
Subject (34 for CAH2, 21 for CAH1, 10 for broad grouping)	21	21	21	21	21	21	34	10	10	34	10	10
Year of indicator							2	2	2	4	4	4
Sex										2		
Number of possible combinations	5,544	3,780	1,890	16,632	3,780	1,890	30,600	4,500	4,500	29,376	4,320	4,320
Number of populated combinations	4,312	1,514	675	7,055	1,578	306	24,787	3,841	1,088	14,266	1,802	686
% of students in very small groups (1 to 5)	1,065	348	253	2,765	364	130	11,041	1,688	840	6,741	875	397
% of students in small groups (1 to 20)	1,925	639	389	4,313	659	214	18,184	3,210	1,067	10,105	1,380	546

* Progression is a UK-only indicator, so non-UK groups are ignored.

106. For the continuation and student experience measures our consultation proposals are unaffected by the introduction of the separate ABCS quintiles as benchmarking factor groups, and Steps 1 and 2a have not identified any other potential changes to our proposed benchmarking factors. This means that the number of possible combinations shown in Table 3 remains unchanged from those given in the consultation, and we find that the extent to which these are populated is also similar to that anticipated by the consultation.³³ This suggests limited, if any, increased risk of self-benchmarking relative to that anticipated, and tolerated, by our consultation proposals.
107. The results in Table 3 show that for the completion measures the number of combinations and the extent to which students fall into small groups has increased by comparison with those given in the consultation. However, these remain within similar tolerances to those that we see for the continuation and student experience measures, which suggests that there is limited risk that self-benchmarking increases to an unmanageable level that could not be tolerated.
108. However, the results in Table 3 also show that for the progression indicators the inclusion of all of the ABCS quintiles separately, in addition to the other proposed factors results in very large numbers of combinations, and high proportions of students in small groups. This suggests that including all of the factors and groupings as proposed for the progression measures through the consultation is likely to result in the risk of self-benchmarking increasing to unmanageable levels, at which point the calculated benchmarks could become ineffective.
109. To better understand how the small benchmarking groups impact the benchmarking process, we have calculated the contribution of providers towards their own benchmarks. While paragraphs 106 to 108 indicate that concerns about the level of self-benchmarking may be concentrated on the progression measures, we have calculated providers' contributions to their own benchmarks across all of the measures, for completeness and to aid comparability. This statistic indicates the influence of the provider's own students on the sector averages that informs the calculation of the provider's benchmark, and helps us understand the risk of self-benchmarking. Table 4 shows the proportion of providers that contribute more than 5 per cent, 20 per cent, or 50 per cent towards their own benchmarks, based on the proposed benchmarking factors.³⁴ Our analysis showed significant consistency of the factors that were correlated across the NSS scales that are used to construct the student experience indicators so, for brevity, Table 4 only shows the results from the 'teaching on my course'.

³³ See Table 10 of the January 2022 benchmarking factor review at www.officeforstudents.org.uk/publications/review-of-selection-and-grouping-of-benchmarking-factors/.

³⁴ Only providers with a denominator population of at least 23 students are considered for these statistics. The part-time undergraduate with postgraduate components mode and level combination is not included in these tables due to insufficient numbers of providers meeting this denominator restriction.

Table 4: Providers' contributions to their own benchmarks based on the proposed benchmarking factors, including ABCS and more recent data

Percent of providers with at least (X%) contribution to their own benchmark	Continuation				Completion (cohort tracking)				Progression				Student experience (teaching on my course scale)			
	Mode and level	Number of providers	> 5%	>20%	>50%	Number of providers	> 5%	>20%	>50%	Number of providers	> 5%	>20%	>50%	Number of providers	> 5%	>20%
Full-time (all undergraduates)	366	26%	2%	1%	345	35%	3%	1%	337	90%	15%	2%	340	50%	7%	1%
Full-time other undergraduate	287	40%	11%	3%	282	50%	13%	4%	244	100%	51%	5%	237	80%	14%	3%
Full-time first degree	291	8%	0%	0%	268	22%	2%	1%	267	64%	3%	0%	235	20%	1%	0%
Full-time undergraduate with postgraduate components	90	76%	9%	3%	85	74%	14%	6%	79	100%	53%	19%	82	94%	26%	7%
Part-time (all undergraduates)	269	30%	6%	1%	263	33%	6%	1%	206	96%	11%	3%	139	68%	9%	1%
Part-time other undergraduate	235	28%	6%	1%	247	25%	6%	1%	173	97%	11%	3%	83	78%	13%	0%
Part-time first degree	131	32%	5%	2%	140	36%	6%	2%	94	95%	15%	1%	74	46%	4%	1%
Part-time undergraduate with postgraduate components	8	100%	75%	63%	8	100%	88%	25%	3	100%	100%	100%	2	100%	100%	100%
Apprenticeship (all undergraduates)	203	30%	2%	0%	139	31%	10%	0%	51	100%	94%	14%	81	90%	17%	0%

110. Based on the results shown in Table 3 and Table 4, we conclude that the number of unique benchmarking groups for the continuation, completion and student experience measures are not so large that the potential for self-benchmarking increases to unmanageable levels. We consider the risk that benchmarks calculated for these measures could become ineffective is not materially higher than it was when we made our consultation proposals and that those proposals therefore achieve an appropriate balance of policy objectives and statistical properties, as required by the principles for the selection and application of benchmarking factors. The potential for self-benchmarking is found to exist on a small scale, similar to that which was anticipated and tolerated by our proposals, and we consider that the approach described at paragraph 51 provides appropriate mitigation for the scenario in which self-benchmarking risk presents a material issue for a given provider. We note that the potential for self-benchmarking is high for part-time undergraduate with postgraduate components is high and that this is likely to be unavoidable with any selection of benchmarking factors, on account of the small number of providers offering these courses.
111. Given the strong support for the use of benchmarking for our measures, and for the benchmarking principles, **we have therefore decided to adopt the approach set out in proposal 10 of the consultation as it pertains to the continuation, completion and student experience measures, with one specific amendment described in paragraphs 112 to 113.** For the avoidance of doubt, this means that the individual ABCS quintiles will be included as benchmarking factor groupings for the continuation and completion measures, in each case based on the ABCS analyses which relates to the student outcome measure in question.
112. The consultation proposed using the same benchmarking factors for indicators constructed for apprenticeship students as for part-time students, because the potential for conducting the appropriate statistical modelling is more limited due to the more limited spread and characteristics of apprenticeship students across the sector. We consider that this broadly remains true in respect of the statistical modelling required to inform the selection of the longlisted benchmarking factors. When considered at the level of detail necessary within the statistical modelling, there are insufficient student numbers for those models to be robust.³⁵ However, as described above, we have included modelling of the apprenticeship students in the modelling at Step 2b based on the proposed factors.
113. We consider that the ABCS quintiles produced in respect of full-time student outcomes represent a better fit with the student outcomes achieved by apprenticeship students than would be achieved by the part-time ABCS quintiles. Having had regard to the consultation responses regarding the construction of the ABCS quintiles, **we have decided to use the ABCS quintiles produced in respect of full-time student outcomes for the purposes of benchmarking the continuation and completion measures by ABCS quintiles when they are constructed for apprenticeship students.** We consider that this aligns with the more general approach we have adopted with respect to apprenticeship student outcomes, where the distinctive nature of this provision has been recognised for the purposes of defining modes and levels of study, and its observed student outcomes influence features such as the census dates which underpin construction of continuation and completion

³⁵ In technical terms, the statistical models do not converge when constructed for apprenticeship students only.

measures (wherein the census dates used for apprenticeship students are the same as those used for full-time students).

114. This means that the final benchmarking factors for the continuation, completion and student experience measures are those given in Tables 7, 8 and 10 below.
115. However, the results shown in Table 3 and Table 4, collectively, raise a material concern that that the number of unique benchmarking groups for the progression measure has become so large that the potential for self-benchmarking increases to an unmanageable level and compromise the statistical integrity of the benchmarking method. We consider it highly likely that benchmarks calculated for these measures could become ineffective, and that the approach described at paragraph 51 would not be appropriate for dealing with the scenario that the self-benchmarking risk presents a material issue for a sizeable majority of the sector. Given the strong support from consultation respondents for the use of benchmarking for these measures, and for the benchmarking principles we proposed, we take the view that failure of the consultation proposals to achieve an appropriate balance of policy objectives and statistical properties for the progression measures renders those proposals non-viable.
116. In order to deliver the benchmarked progression measures that have been supported by consultation respondents, we consider that it is necessary for us to proceed to Step 3 of the evaluation to support final decisions on the benchmarking factors for the progression measures.

Step 3

117. For the reasons described in paragraphs 110 to 116 above, in Step 3 we have focused on the groupings we had proposed for each of the factors used to benchmark the progression measures. In doing so, we have sought to reduce the granularity of some factors in order to maintain acceptable levels of self-benchmarking for the progression measures. This step was intended to support final decisions which could be taken in line with the principles for selecting and grouping benchmarking factors.
118. We consider that there are three broad approaches that could be used to help preserve the statistical integrity of the benchmarking method for its application to the progression measures. We consider that each of the following would allow us to reduce the risks of widespread self-benchmarking:
 - a. We could reduce the number of benchmarking factors used for the progression measures. Proposal 10 of the consultation proposed use of all of the following benchmarking factors for progression measures: year of qualification obtained; level of study; subject of study; entry qualifications; ABCS progression group; geography of employment quintile. The number of unique benchmarking groups would be reduced (and hence the potential for self-benchmarking reduced) to more manageable levels if we did not proceed with use of one or more of these factors. However, we note that the statistical modelling described within Steps 1 and 2b above identified that the size of the estimated differences for several of these factors are broadly comparable. We also consider that each factor was proposed on the basis of a strong fit with the policy objectives for taking appropriate account of factors that have material effects on the student outcomes we are measuring. This means that a decision to remove one or more of these factors would represent a relatively arbitrary selection of the factors to

use in benchmarking. We consider that such a selection approach would sit in tension with the agreed principles for the selection and application of benchmarking factors, which were supported by consultation respondents.

- b. We could define benchmarking factor groupings at a more aggregate level throughout all of the factors that we proposed to use in benchmarking the progression measures. The number of unique benchmarking groups would be reduced (and hence the potential for self-benchmarking reduced) to more manageable levels if all of the factors we proposed involved smaller numbers of groupings. However, we note that the statistical modelling described within Steps 1 and 2b above identified marked variations in the size of the estimated differences for several of these factors and the groupings within them. The groupings we proposed were intended to facilitate the benchmarking to take appropriate account of factors that have material effects on the student outcomes we are measuring. This means that a decision to aggregate groupings for all of them would represent an arbitrary application of the factors to use in benchmarking, which we consider would sit in tension with the agreed principles for the selection and application of benchmarking factors, which were supported by consultation respondents.
- c. We could permit the benchmarking factor groupings that we define for certain factors to vary across particular levels of study, in order to define benchmarking factor groupings at a more aggregate level in certain cases. The number of unique benchmarking groups would be reduced (and hence the potential for self-benchmarking reduced) to more manageable levels if the groupings used took greater account of the numbers, characteristics and outcomes of students at each level of study. This is because we proposed to include level of study as a benchmarking factor for the progression measures. For example, if students at the 'other undergraduate' level of study are involved in a narrower mix of subject areas of study than is the case for 'first degree' students, the consistent definition of more disaggregated subject of study groupings for all undergraduate levels for benchmarking purposes may be creating a large number of sparsely populated benchmarking groups when these involve other undergraduate students. We note that Steps 1 and 2b noted the potential for bespoke statistical modelling per measure, mode of study, and level of study (including for the progression measures).³⁶ This means that a decision to aggregate certain benchmarking factor groupings within some levels of study could be informed by appropriate statistical modelling to understand the effects on the student outcomes we are measuring. We consider that such an approach would be in line with the agreed principles for the selection and application of benchmarking factors, which were supported by consultation respondents.

119. For the reasons given in paragraph 118c we consider that the most reasonable approach we could take to preserve the statistical integrity of the benchmarking method for its application to the progression measures is to permit the benchmarking factor groupings that we define for certain factors to vary across particular levels of study. We consider that preservation of the statistical integrity of the benchmarking represents a clear and valid rationale for variations to the grouping of attributes, that there is a demonstrable need for the use of groupings at more aggregated or disaggregated levels and that the approach facilitates the

³⁶ The further bespoke modelling we have constructed for progression measures is available in the data files at www.officeforstudents.org.uk/publications/review-of-selection-and-grouping-of-benchmarking-factors/.

grouping of attributes that share a consistency of student backgrounds, outcomes or behaviours with respect to the progression measures. Respondents to the consultation noted the complexity of our indicators and associated benchmarks. By choosing to vary the factor groupings by level we acknowledge that we are increasing the complexity of benchmarks. However, we consider that varying the factor groupings has only a marginal impact on complexity as it maintains consistency in the factors that are considered across levels. We therefore do not consider that this increased complexity outweighs the benefits of preserving the integrity of the benchmarks.

120. For progression measures constructed for full-time first degree students, Table 4 indicated that the potential for self-benchmarking was found to exist on a small scale, similar to that which was anticipated and tolerated by our proposals. We consider that a further advantage of proceeding with the approach given in paragraph 118c is that efforts to address the risk of self-benchmarking can be focussed in areas which are most prone to high levels of providers' own contribution to their benchmarks. We are able to preserve the ability of the benchmarking to maximise its use of data about full-time first degree students and take appropriate account of the factors that are correlated with their progression outcomes by retaining the approach proposed within the consultation. At the same time, we are able to seek to preserve the statistical integrity of the method in areas where the consultation proposals do not deliver effective benchmarking.

Full-time progression measures

121. The bespoke statistical modelling that has been produced for the full-time progression measure per mode and level of study demonstrates that there is greatest scope to consider groupings at more aggregated levels in respect of the subject of study and entry qualifications benchmarking factors we proposed for this measure.
122. That modelling demonstrates that students have qualified from a narrower mix of subject areas of study for the other undergraduate and 'undergraduate with postgraduate components' levels of study. For these levels of study we see particular concentrations of student numbers in certain subject areas, and less variation in the size of the estimated differences across groupings that are aggregated to form the higher levels of the CAH. This means that our proposed definition of groupings based on level 2 of the CAH creates a number of sparsely populated groups for these levels of study, which risks compromising the statistical integrity of the benchmarking method.
123. We note that this is a particular risk for the progression measures as they rely on a survey instrument which has, to date, achieved a response rate just over 50 per cent. While similarly concentrated in terms of subject mix, the continuation and completion measures involve larger numbers of full-time students in these levels of study because they rely on entrant counts. They also present less risk to the statistical integrity of the benchmarking method because our consultation proposals for those measures involved broader subject groupings based on level 1 of the CAH.
124. **We consider that the bespoke statistical modelling supports use of the broadly defined subject groupings (defined at Annex E of the consultation) with respect to benchmarking factor groups defined for the other undergraduate and undergraduate with postgraduate components levels of study, rather than use of level 2 of the CAH as was proposed in the consultation.**

125. For the entry qualifications factor, the bespoke statistical modelling demonstrates that students at other undergraduate level of study generally have a narrower mix of entry qualifications than is the case for first degree and undergraduate with postgraduate components levels of study. For other undergraduate students, we see particular concentrations of student numbers with certain entry qualifications, and less variation in the size of the estimated differences across some of the entry qualification groupings. This means that our proposed definition of groupings based on 11 entry qualification groupings creates a number of sparsely populated groups for the other undergraduate level of study, which risks compromising the statistical integrity of the benchmarking method.
- 126. We consider that the bespoke statistical modelling supports use of the five entry qualification groupings (defined at Annex E of the consultation) with respect to benchmarking factor groups defined for the other undergraduate level of study, rather than use of the 11 groupings as was proposed in the consultation.**
127. The bespoke statistical modelling that has been produced for the full-time progression measure per level of study demonstrates that use of the 11 entry qualification groupings remains most appropriate for the purposes of defining subject groupings to use in the benchmarking of the undergraduate with postgraduate components level of study, as was proposed in the consultation. This is because we continue to see these students spread across the 11 categories in large numbers, with marked variation in the size of the estimated differences across these groupings.
128. For progression measures constructed for full-time first degree students, Table 4 indicated that the potential for self-benchmarking was found to exist on a small scale, similar to that which was anticipated and tolerated by our proposals. We therefore consider that it is not necessary to consider any further aggregation in the definition of the subject or entry qualification groupings to use in the benchmarking of the first degree level of study. **For benchmarking the first degree level of study we take the view that it remains appropriate to define the subject groupings on the basis of level 2 of the CAH, and to use the 11 entry qualification groupings, as was proposed in the consultation.**

Part-time progression measures

129. The bespoke statistical modelling that has been produced for the part-time progression measure per level of study demonstrates that across all levels of study there tend to be particular concentrations of student numbers with certain entry qualifications, and less variation in the size of the estimated differences across some of the entry qualification groupings. This means that our proposed definition of groupings based on five entry qualification groupings creates a number of sparsely populated groups for all levels of study, which risks compromising the statistical integrity of the benchmarking method. **We consider that the bespoke statistical modelling supports use of three more broadly defined entry qualification groupings (defined at Annex B of this document), which are a further aggregation of the five we proposed in the consultation.**
130. We note that Table 4 indicated that the potential for self-benchmarking was relatively high for part-time progression measures for the undergraduate with postgraduate components level of study. We are aware that this results from the very small number of providers that report students in this combination of mode and level of study, and we consider that there is no alternative approach to benchmarking that would resolve this. We consider that the approach

described at paragraph 51 would apply in the circumstance that a provider delivering part-time courses at the undergraduate with postgraduate components level of study is affected by a material issue of self-benchmarking. We continue to take the view that the ways in which we take account of the context of any such provider in our assessment approaches, and the availability of information about the provider's own contribution to the benchmark, mean that we are able to place less weight on the benchmarks in these cases.

Apprenticeship progression measures

131. We have not produced statistical modelling of the progression measures for apprenticeship students for the same reasons we described in the consultation, which was that the potential for conducting the appropriate statistical modelling is more limited on account of the more limited spread and characteristics of apprenticeship students across the sector. We continue to take the view that the more limited spread and characteristics of apprenticeship students across the sector means that it is appropriate to use the same benchmarking factors as for part-time students, which experiences similar (if less extreme) limitations of spread and characteristics of students.
132. However, we note that Table 4 indicated that the potential for self-benchmarking was relatively high for progression measures when they are constructed for apprenticeship students. We have produced further bespoke statistical modelling for apprenticeship students, based on the factors that were proposed in the consultation. We maintain that the potential for conducting the appropriate statistical modelling is more limited in respect of that required to inform the selection of benchmarking factors (in particular, where the modelling of longlisted benchmarking factors is not considered viable). However, we consider that more narrowly defined statistical models based only on the factors that were proposed in the consultation are suitable for determining whether those factors are correlated with the progression outcomes of apprenticeship students.³⁷ We consider that those models provide sufficient evidence of correlation between the proposed benchmarking factors and the progression outcomes for these students that we take assurance that they remain reasonable for this purpose.
133. **We therefore consider it appropriate to proceed with our consultation proposals with one specific amendment.** For the same reasons described in paragraphs 112 to 113, we have decided to use the ABCS quintiles produced in respect of full-time student outcomes for the purposes of benchmarking the progression measures by ABCS quintiles when they are constructed for apprenticeship students.

Conclusion of Step 3

134. To understand how the changes we have considered through Step 3 of our evaluation of the benchmarking factors impact the benchmarking process, we have re-calculated the contribution of providers towards their own benchmarks. As previously, we have re-calculated this across all of the measures for completeness and to aid comparability. Tables 5 and 6 show the number of attributes, combinations, and small groups based on the proposed benchmarking factors, and the proportion of providers that contribute more than 5

³⁷ Bespoke statistical models for apprenticeship students based on the factors that were proposed in the consultation are available in the data files available at www.officeforstudents.org.uk/publications/review-of-selection-and-grouping-of-benchmarking-factors/.

per cent, 20 per cent, or 50 per cent towards their own benchmarks, based on the changes we have considered making to the proposed benchmarking factors.³⁸ Our analysis showed significant consistency of the factors that were correlated across the NSS scales that are used to construct the student experience indicators so, for brevity, Tables 5 and 6 only shows the results from the 'teaching on my course'.

³⁸ Only providers with a denominator population of at least 23 students are considered for these statistics. The part-time undergraduate with postgraduate components mode and level combination is not included in these tables due to insufficient numbers of providers meeting this denominator restriction.

Table 5: Number of attributes, combinations, and small groups based on the final benchmarking factors

Factor	Continuation			Completion (cohort tracking)			Progression					Student experience (teaching on my course scale)		
	Full-time	Part-time	Apprenticeship	Full-time	Part-time	Apprenticeship	Full-time, other undergraduate	Full-time, first degree	Full-time, undergraduate with postgraduate components	Part-time	Apprenticeship	Full-time	Part-time	Apprenticeship
Age on entry												3	3	3
Associations between characteristics of students (ABCS) quintile	6	6	6	6	6	6	5*	5*	5*	5*	5*			
Deprivation quintile (IMD)														
Disability												2	2	2
Entry qualifications	11	5	5	11	5	5	5	10*	10*	3	3			
Ethnicity												6	6	6
Expected course length		2		3	2									
Geography of employment quintiles							3	3	3	3	3			
Level of study	4	3	3	4	3	3	3	3	3	3	3	3	3	3
Subject (34 for CAH2, 21 for CAH1, 10 for broad grouping)	21	21	21	21	21	21	10	34	10	10	10	34	10	10
Year of indicator							2	2	2	2	2	4	4	4
Sex												2		
Number of possible combinations	5,544	3,780	1,890	16,632	3,780	1,890	4,500	30,600	9,000	2,700	2,700	29,376	4,320	4,320
Number of populated combinations	4,312	1,514	675	7,055	1,578	306	2,155	14,134	2,443	2,507	796	14,266	1,802	686
% of students in very small groups (1 to 5)	1,065	348	253	2,765	364	130	499	3,801	1,411	770	554	6,741	875	397
% of students in small groups (1 to 20)	1,925	639	389	4,313	659	214	1,589	8,335	1,995	1,790	764	10,105	1,380	546

* Progression is a UK-only indicator, so non-UK groups are ignored.

Table 6: Providers' contributions to their own benchmarks based on the final benchmarking factors

Percent of providers with at least (X%) contribution to their own benchmark	Continuation				Completion (cohort tracking)				Progression				Student experience (teaching on my course scale)			
	Number of providers	> 5%	>20%	>50%	Number of providers	> 5%	>20%	>50%	Number of providers	> 5%	>20%	>50%	Number of providers	> 5%	>20%	>50%
Full-time (all undergraduates)	366	26%	2%	1%	345	35%	3%	1%	337	84%	6%	0%	340	50%	7%	1%
Full-time other undergraduate	287	40%	11%	3%	282	50%	13%	4%	244	97%	9%	0%	237	80%	14%	3%
Full-time first degree	291	8%	0%	0%	268	22%	2%	1%	267	64%	3%	0%	235	20%	1%	0%
Full-time undergraduate with postgraduate components	90	76%	9%	3%	85	74%	14%	6%	79	99%	28%	6%	82	94%	26%	7%
Part-time (all undergraduates)	269	30%	6%	1%	263	33%	6%	1%	206	80%	8%	2%	139	68%	9%	1%
Part-time other undergraduate	235	28%	6%	1%	247	25%	6%	1%	173	73%	9%	1%	83	78%	13%	0%
Part-time first degree	131	32%	5%	2%	140	36%	6%	2%	94	89%	7%	1%	74	46%	4%	1%
Part-time undergraduate with postgraduate components	8	100%	75%	63%	8	100%	88%	25%	3	100%	100%	100%	2	100%	100%	100%
Apprenticeship (all undergraduates)	203	30%	2%	0%	139	31%	10%	0%	51	100%	92%	14%	81	90%	17%	0%

135. Based on the results shown in Tables 5 and 6 we conclude that if we make the changes discussed through paragraphs 120 to 133 above, the number of unique benchmarking groups for the progression measures are not so large that the potential for self-benchmarking increases to unmanageable levels. We consider the risk that benchmarks calculated for these measures could become ineffective is not materially higher than it is for the continuation, completion and student experience measures and that the changes we have considered therefore achieve an appropriate balance of policy objectives and statistical properties, as required by the principles for the selection and application of benchmarking factors. The potential for self-benchmarking is found to exist on a small scale, similar to that which was anticipated and tolerated by our consultation proposals, and we consider that the approach described at paragraph 51 provides appropriate mitigation for the scenario in which self-benchmarking risk presents a material issue for a given provider.
136. **We have therefore decided to proceed with the changes to the benchmarking factor groupings for progression measures discussed through paragraphs 120 to 133 above.**

Decision on final benchmarking factors

137. We have considered the points made by respondents in relation to proposal 10 of the consultation and have addressed these in detail in our analysis of consultation responses and above. For the reasons set out in the consultation, our analysis of responses and above, we have decided to adopt the approach to benchmarking factors set out in proposal 10, with some specific amendments:
- a. We have decided to use the ABCS quintiles produced in respect of full-time student outcomes for the purposes of benchmarking the continuation and completion measures by ABCS quintiles when they are constructed for apprenticeship students. Our reasoning for this is given in paragraphs 112 to 113.
 - b. We have decided to include individual ABCS quintiles as benchmarking factor groupings for the continuation, completion and progression measures, in each case based on the ABCS analyses which relates to the student outcome measure in question. Our reasoning for this is given in paragraphs 65 and 103 to 104.
 - c. We have decided to amend the benchmarking factor groupings for subject of study and entry qualifications for the purposes of constructing benchmarks for the progression measures, as follows:
 - i. Use the broadly defined subject groupings (defined at Annex B) to define benchmarking factor groups for the other undergraduate and undergraduate with postgraduate components levels of study when constructing benchmarks for full-time progression measures. The consultation had proposed definition of benchmarking factor groups using level 2 of the CAH for these levels of study.
 - ii. Use the five entry qualification groupings (defined at Annex B) to define benchmarking factor groups for the other undergraduate level of study when constructing benchmarks for full-time progression measures. The consultation had proposed definition of benchmarking factor groups using 11 entry qualification groupings for this level of study.

- iii. Use the three entry qualification groupings (defined at Annex B) to define benchmarking factor groups for all of the undergraduate levels of study when constructing benchmarks for part-time progression measures. The consultation had proposed definition of benchmarking factor groups using five entry qualification groupings for this mode of study.
- iv. Use the ABCS quintiles produced in respect of full-time student outcomes for the purposes of benchmarking the progression measures by ABCS quintiles when they are constructed for apprenticeship students.

Our reasoning for this is given in paragraphs 117 to 136.

138. Our decisions are shown in Tables 7 to 10. Where we refer to groupings of entry qualifications and subject areas of study in Tables 7 to 10, the groupings we have decided to use are listed in Annex B.
139. At this stage, our decisions on final benchmarking factors will result in the calculation of benchmarks for all of the indicators and split indicators included in the views that cover a provider's taught and taught or registered student population. We will not calculate benchmark values for the indicators and split indicators included in the partnerships view of a provider's student population until such time as the data quality and data access issues that have caused us to delay publication of this view have been improved. At such time that we do calculate benchmark values for the partnerships view, we would use the same benchmarking factors and groupings that have been decided here.
140. We are taking this approach because we consider that it will be necessary to better understand the scope and limits of coverage of the partnerships view in order to establish an appropriate definition of the higher education sector to inform the benchmarking calculations. In particular, we note that the partnerships views of a providers' student populations is broader than the student population that informs the calculation of benchmarks for OfS registered providers in England for the taught and taught or registered student populations: the partnerships view can include students registered at providers who are not English higher education providers registered with the OfS. We consider that it will be necessary to better understand data about the partnerships involved, in order to judge whether benchmarks should be constructed from the data underlying the partnerships view, or from the data underlying the taught and taught or registered views so that all three use the same definition of the higher education sector.
141. In line with the agreed principles for the selection and application of benchmarking factors, we remain committed to reviewing the factors used in benchmarking at appropriate intervals, to check that the evidence for and applicability of the approach remains current and fit for purpose, and to consider the impact achieved by previous benchmarking exercises.

Table 7: Final benchmarking factors for continuation measures

Benchmarking factor	Continuation: full-time	Continuation: part-time	Continuation: apprenticeship
Level of study (First degree, other undergraduate, undergraduate with postgraduate components)	✓ (Other undergraduate separated into those at Level 4 and those at Level 5+)	✓	✓
Subject of study (CAH level 1 groups)	✓	✓	✓
Entry qualifications	✓ (11 groupings)	✓ (5 groupings)	✓ (5 groupings)
Expected course length (Expected course length of less than a year, or otherwise)	✗	✓	✗
ABCS quintile (Continuation ABCS Quintiles 1 to 5 (including unmatched) for the relevant mode of study, non-UK domiciled) ³⁹	✓	✓	✓
Total distinct benchmarking groups	5,544	3,780	1,890

³⁹ The ABCS method constructs separate quintiles relevant to each student outcome measure, where necessary differentiating by mode of study. The ABCS analysis for continuation outcomes considers full- and part-time students separately at www.officeforstudents.org.uk/data-and-analysis/associations-between-characteristics-of-students/. Full-time continuation ABCS quintiles are used in respect of apprenticeship students.

Table 8: Final benchmarking factors for completion measures

Benchmarking factor	Completion: full-time	Completion: part-time	Completion: apprenticeship
Level of study (First degree, other undergraduate, undergraduate with postgraduate components)	✓ (Other undergraduate separated into that at Level 4 and that at Level 5+)	✓	✓
Subject of study (CAH level 1 groups)	✓	✓	✓
Entry qualifications	✓ (11 groupings)	✓ (5 groupings)	✓ (5 groupings)
Expected course length	✓ (Expected course length of less than two years, two years, or at least three years)	✓ (Expected course length of less than a year, or otherwise)	✗
ABCS quintile (Completion ABCS Quintiles 1 to 5 (including unmatched) for the relevant mode of study, non-UK domiciled) ⁴⁰	✓	✓	✓
Total distinct benchmarking groups	16,632	3,780	1,890

⁴⁰ The ABCS method constructs separate quintiles relevant to each student outcome measure, where necessary differentiating by mode of study. The ABCS analysis for completion outcomes considers full- and part-time students separately at www.officeforstudents.org.uk/data-and-analysis/associations-between-characteristics-of-students/. Full-time completion ABCS quintiles are used in respect of apprenticeship students.

Table 9: Final benchmarking factors for progression measures

Benchmarking factor	Progression: full-time	Progression: part-time	Progression: apprenticeship
Year qualification obtained	✓	✓	✓
Level of study (First degree, other undergraduate, undergraduate with postgraduate components)	✓	✓	✓
Subject of study	✓ (Other undergraduate: Broadly defined subject groups, First degree: CAH level 2 groups ⁴¹ , Undergraduate with postgraduate components: Broadly defined subject groups)	✓ (Broadly defined subject groups)	✓ (Broadly defined subject groups)
Entry qualifications	✓ (Other undergraduate: 5 groupings, First degree: 11 groupings, Undergraduate with postgraduate components: 11 groupings)	✓ (3 groupings)	✓ (3 groupings)
ABCS quintile (Progression ABCS Quintiles 1 to 5 (including unmatched) for the	✓	✓	✓

⁴¹ For benchmarking purposes, the CAH level 2 group for Celtic studies (CAH19-02) has been combined into the Languages and area studies group (CAH19-04).

Benchmarking factor	Progression: full-time	Progression: part-time	Progression: apprenticeship
relevant mode of study) ⁴²			
Geography of employment quintile (Quintile 1, Quintiles 2 and 3, Quintiles 4, 5 and unknown)	✓	✓	✓
Total distinct benchmarking groups⁴³	Other undergraduate: 9,000 First degree: 67,320 Undergraduate with postgraduate components: 19,800	5,400	5,400

Table 10: Final benchmarking factors for student experience measures

Benchmarking factor	Student experience: full-time	Student experience: part-time	Student experience: apprenticeship
Year of survey	✓	✓	✓
Level of study (First degree, other undergraduate, undergraduate with postgraduate components)	✓	✓	✓
Subject of study	✓ (CAH level 2 groups ⁴⁴)	✓ (Broadly defined subject groups)	✓ (Broadly defined subject groups)

⁴² The ABCS method constructs separate quintiles relevant to each student outcome measure, where necessary differentiating by mode of study. The ABCS analysis for progression outcomes considers full- and part-time students separately at www.officeforstudents.org.uk/data-and-analysis/associations-between-characteristics-of-students/. Full-time progression ABCS quintiles are used in respect of apprenticeship students.

⁴³ The total number of benchmarking groups for progression measures reflects the four years of Graduate Outcomes survey responses that will be used in the construction of student outcomes indicators in steady state.

⁴⁴ For benchmarking purposes, the CAH level 2 group for Celtic studies (CAH19-02) has been combined into the Languages and area studies group (CAH19-04).

Benchmarking factor	Student experience: full-time	Student experience: part-time	Student experience: apprenticeship
Age on entry (Under 21 or unknown, 21 to 30, 31 and over)	✓	✓	✓
Disability (Disability reported, no disability reported)	✓	✓	✓
Ethnicity (Asian, Black, Mixed, Other, Unknown or White, non-UK domiciled)	✓	✓	✓
Sex (Female or other, Male)	✓	✗	✗
Total distinct benchmarking groups	29,376	4,320	4,320

Consequential decisions which follow from those on benchmarking factors

142. Proposal 9 of the consultation on the construction of student outcome and experience measures set out proposals for the selection and definition of split indicators for various student and course characteristics. In doing so, it set out the groupings of the attributes of those characteristics that would be used to construct the split indicators and noted (at paragraph 345 of that document) that, where relevant, we sought to align the definitions of student characteristic split indicators with those used in our definition of benchmarking factors. Our analysis of responses to the consultation reiterated the value we anticipate from consistency between the definition of split indicators and benchmarking groups. It noted, at paragraph 745, that final decisions about the groupings of ABCS and geography of employment quintiles for split indicator purposes would be made at the same time as final decisions about benchmarking factors, to facilitate a consistent approach.
143. Paragraphs 144 to 155 describe the consequential decisions on the definition of split indicators that follow from the decisions on benchmarking factors shown in Tables 7 to 10 above.

Split indicators for ABCS

144. For the reasons described in paragraphs 112 to 113, we have decided to use the ABCS quintiles produced in respect of full-time student outcomes for the purposes of benchmarking by ABCS quintiles when benchmarks are constructed for apprenticeship students. We consider that consistency between the definitions of the benchmarking factors and the split indicators is appropriate in this regard, and serves to limit the burden of understanding and engaging with the definitions used within our student outcome and experience measures. We also consider that the reasons set out in paragraphs 112 to 113 hold equal merit for the purposes of defining split indicators for apprenticeship students. We have therefore decided to use the ABCS quintiles produced in respect of full-time student outcomes for the purposes of defining the ABCS split indicators when they are constructed for apprenticeship students.
145. Proposal 9 of the consultation set out three groups of students to be reported through ABCS split indicators: those in quintile 1, those in quintiles 2 and 3, and those in quintiles 4 and 5. At the time of the consultation, ABCS quintiles were only available in respect of the continuation stage of the student lifecycle. We have now produced ABCS analyses and quintiles for the completion and progression stages of the lifecycle. It therefore becomes necessary to consider whether the three groups we proposed to use in the definition of ABCS split indicators can reasonably be applied consistently across the completion and progression measures as well as the continuation ones.
146. We have now made final decisions to include the individual ABCS quintiles as benchmarking factor groupings for the continuation, completion and progression measures (in each case based on the ABCS analyses which relates to the student outcome measure in question). This means that the three groups we proposed to use in the definition of ABCS split indicators is not consistent with the groups used to define the ABCS benchmarking factors, for any of the student outcome measures.
147. The differences in student outcomes that we observe between the individual ABCS quintiles are included in the full results for the benchmarking factor selection models based on the final factors.⁴⁵ While they show that there would be merit to defining ABCS split indicators using the five individual quintiles, rather than the three groups we proposed in the consultation, we note that this would lead to a marked increase in the number of split indicators. We consider that such an increase sits in tension with the widespread comments in consultation responses about the burden of understanding and engaging with the large volume of data created by our consultation proposals. We consider that the three groups we proposed for ABCS split indicators remain reasonable for all measures, in light of the differences shown in the benchmarking factor modelling results. We therefore take the view that consistency of the split indicator and benchmarking factor groups is of lesser priority than avoiding an unmanageable increase to the volume of data and the burden of understanding it.
148. We have therefore decided to adopt the definition set out in proposal 9 of the consultation and will define three groups of students to be reported through ABCS split indicators for all of

⁴⁵ See the observed and modelled results for the 'ABCS_quintile' type of split indicator, within the data files at www.officeforstudents.org.uk/publications/review-of-selection-and-grouping-of-benchmarking-factors/.

the continuation, completion and progression measures: those in quintile 1, those in quintiles 2 and 3, and those in quintiles 4 and 5.

Split indicators for geography of employment quintiles

149. Proposal 9 of the consultation set out three groups of students to be reported through geography of employment split indicators for the progression measures: those in quintile 1, those in quintiles 2 and 3, and those in quintiles 4 and 5. It also set out, at paragraph 378, that when we implemented our regulatory approaches, the same definition would be applied in respect of both undergraduate and postgraduate students.
150. At the time of the consultation, geography of employment quintiles were only available for undergraduate students. Our November 2021 publication of the geography of employment and earning analysis described among its next steps an expectation to explore the applicability of the existing classification to postgraduate qualifiers, or otherwise the potential to create separate groupings for these students using the same methodology.⁴⁶ The latest publication of the geography of employment analysis includes quintiles for postgraduate students.⁴⁷ It also improves the assignment to quintiles of those students who reported working abroad.
151. We have now made final decisions to include the geography of employment quintiles as benchmarking factor groupings for the progression measures. In doing so, we decided to use the three groups of these quintiles that we proposed in the consultation for definition of both the benchmarking factor groups and the split indicators. This means that, for undergraduate students, the groups we proposed to use in the definition of geography of employment split indicators would be consistent with the groups used to define the geography of employment benchmarking factors. The differences in student outcomes that we observe between the individual geography of employment quintiles are included in the full results for the benchmarking factor selection models based on the final factors.⁴⁸ While they show that the observed rates and maximum estimated differences for full-time other undergraduate students appear out of step with other levels of study, we consider that it remains appropriate to construct split indicators consistently across all undergraduate levels.
152. It therefore becomes necessary to consider whether the three groups we proposed to use in the definition of geography of employment split indicators can reasonably be applied consistently across the undergraduate and postgraduate levels of study for which we calculate split indicators.
153. The geography of employment quintiles produced for postgraduate students have not been included in statistical modelling produced through the evaluation of benchmarking factors, because we do not currently calculate benchmarks in respect of postgraduate levels of study. However, based on the range of progression rates spanned by each of the geography of

⁴⁶ See the methodology for the GO quintiles described in the November 2021 publication at www.officeforstudents.org.uk/publications/a-geography-of-employment-and-earnings/.

⁴⁷ See the 2022 update at www.officeforstudents.org.uk/publications/a-geography-of-employment-and-earnings/.

⁴⁸ See the observed and modelled results for the 'ABCS_quintile' type of split indicator, within the data files at www.officeforstudents.org.uk/publications/review-of-selection-and-grouping-of-benchmarking-factors/.

employment quintiles (as reported in the latest analysis),⁴⁹ we consider that the three groups we proposed in the consultation would remain reasonable when applied in respect of postgraduate cohorts.

154. We note that, with the exception of quintile 5 (areas with the highest rates of progression to managerial or professional employment, further study or other positive outcomes), the boundaries between each of the quintiles defined in respect of postgraduate research qualifiers are perhaps less distinct than those between each of the quintiles defined in respect of other qualifiers, with progression rates by area existing on more of a continuum for postgraduate research qualifiers. However, we consider that the value of reporting geography of employment split indicators for postgraduate research qualifiers outweighs the risk that there is slightly less distinction between them. In particular, we consider that reporting them consistently with the geography of employment split indicators for other levels of study will be important for limiting the burden of understanding and engaging with the data we publish.
155. We have therefore decided to adopt the definition set out in proposal 9 of the consultation and will define three groups of students to be reported through geography of employment split indicators for both undergraduate and postgraduate students: those in quintile 1, those in quintiles 2 and 3, and those in quintiles 4 and 5.

⁴⁹ See the 2022 update at www.officeforstudents.org.uk/publications/a-geography-of-employment-and-earnings/.

Annex A: Matters to which we have had regard

1. In reaching our decisions we have had regard to our general duties as set out in section 2 of the Higher Education and Research Act 2017 (HERA). The general duties that are particularly relevant to these decisions are (b) quality, choice and opportunities for students; (e) equality of opportunity in connection with access to and participation in higher education; and (g) best regulatory practice to ensure that activities are transparent, accountable, proportionate and consistent.
2. The OfS's regulatory objectives reflect the things that are of significant importance to students: high quality courses, successful outcomes, and the ongoing value of their qualifications. In the circumstances where a provider is not meeting these objectives for its students, it is important that the OfS can intervene to ensure that current and future students are not exposed to courses of low quality. Opportunities for study are not meaningful if students are able to choose low quality courses delivering weak outcomes, or to continue on such courses, because the regulatory system has endorsed such performance. The construction and publication of measures of student outcomes and experiences that support the identification of providers, or pockets of their provision, delivering weak outcomes make an important contribution to our regulatory approach.
3. The OfS's approach to regulation is designed to promote equality of opportunity in connection with access to, and participation in, higher education. This means that we are concerned with ensuring that students from underrepresented groups are able to access higher education, and also to succeed on and beyond their courses. Our decisions for benchmarking and publishing measures of student outcomes and experiences are intended to support the identification and monitoring of priority groups' access to, and successful participation in, higher education in a way that is appropriately aligned to and consistent with that used to inform our regulatory approach to quality.
4. We have considered the principles of best regulatory practice and, in particular, the transparency and consistency of our regulatory activities. We consider our decisions to be appropriate in ensuring that the OfS can construct data to inform our approaches which are proportionate and consistent. We have adopted data definitions which apply in the same way for all providers. We have given particular consideration to the transparency of our proposals, to ensure that providers and other stakeholders can understand the evidence we will use to inform our regulatory activities.
5. We have also had regard to the Regulators' Code when reaching our decisions, in which 1.1 and 1.2 have prompted us to consider the burdens that our activities place on regulated entities. This has been central to our considerations throughout the formulation of the consultation proposals and our decisions following consultation.
6. As an official statistics producer, our decisions have also had regard to the Code of Practice for Statistics. This code aims to ensure that the statistics produced by the government and public sector bodies are trustworthy (impartial and free from political influence), high quality and of public value and that effective governance structures are in place to protect transparency and accountability. The approach we have adopted prioritises the transparency and consistency of our data definitions, and the clarity of their communication, which would enhance the value of the statistics produced.

7. Under section 149 of the Equality Act 2010, the OfS must have due regard to the public sector equality duty. This requires the OfS to have due regard to the need to eliminate unlawful discrimination, foster good relations between different groups and advance equality of opportunity. When deciding on the construction of benchmarks for student outcome and experience measures we have had particular regard to our public sector equality duty and to our principles for the selection and application of benchmarking factors. In doing so we have had to weigh the effect of our decisions on our ability to deliver a benchmarking approach in an efficient and effective way (having regard to general duty (f), which relates to the need to use the OfS's resources in an efficient, effective and economic way) with the effect of our decisions on our ability to account for particular students groups relevant to the public sector equality duty (having regard to general duty (e)) and the public sector equality duty. We have prioritised the use of ABCS as a benchmarking factor for student outcome measures and decided to aggregate other factors, to ensure that the ABCS can be included to best effect while also maintaining the statistical integrity of the benchmarking method. Individual characteristics have also been prioritised for student experience measures. In both cases, we have sought to ensure that student characteristics (including those with protected characteristics as set out in the Equality Act) are reflected in our benchmarking approach. Further, the datasets we have decided to publish support the identification of any subsets of students, particularly those who share protected characteristics, who are not provided with sufficient support to achieve successful outcomes, in order to enable us to identify those who have not had a genuine opportunity to benefit from higher education, and therefore have not experienced meaningful equality of opportunity.

Annex B: Final groupings of entry qualifications and subject areas of study used as benchmarking factors

- Table B1 shows the groupings of subject areas of study that we have decided to use as benchmarking factors. We have decided to use these groupings as follows:
 - Broadly defined subject groups as benchmarking factors for the full-time other undergraduate and full-time undergraduate with postgraduate components, part-time and apprenticeship progression, and student experience indicators.
 - CAH level 1 groups as benchmarking factors for the full-time, part-time and apprenticeship continuation and completion measures.
 - CAH level 2 groups as benchmarking factors for the full-time first-degree progression, and student experience indicators.

Table B1: Groupings of subject areas used as benchmarking factors

Broadly defined subject group	CAH level 1 group	CAH level 2 group
Medicine, dentistry and veterinary sciences	CAH01: Medicine and dentistry	CAH01-01: Medicine and dentistry
	CAH05: Veterinary sciences	CAH05-01: Veterinary sciences
Nursing, allied health and psychology	CAH02: Subjects allied to medicine	CAH02-02: Pharmacology, toxicology and pharmacy
		CAH02-04: Nursing and midwifery
		CAH02-05: Medical sciences
	CAH02-06: Allied health	
	CAH04: Psychology	CAH04-01: Psychology
Natural and mathematical sciences	CAH03: Biological and sport sciences	CAH03-01: Biosciences
		CAH03-02: Sport and exercise sciences
	CAH07: Physical sciences	CAH07-01: Physics and astronomy
		CAH07-02: Chemistry
		CAH07-04: General, applied and forensic sciences
CAH09: Mathematical sciences	CAH09-01: Mathematical sciences	

Broadly defined subject group	CAH level 1 group	CAH level 2 group
Engineering, technology and computing	CAH10: Engineering and technology	CAH10-01: Engineering CAH10-03: Materials and technology
	CAH11: Computing	CAH11-01: Computing
Law and social sciences	CAH15: Social sciences	CAH15-01: Sociology, social policy and anthropology
		CAH15-02: Economics
		CAH15-03: Politics
	CAH15-04: Health and social care	
	CAH16: Law	CAH16-01: Law
Business and management	CAH17: Business and management	CAH17-01: Business and management
Humanities and languages	CAH19: Language and area studies	CAH19-01: English studies
		CAH19-04, CAH19-02: Languages and area studies
	CAH20: Historical, philosophical and religious studies	CAH20-01: History and archaeology
		CAH20-02: Philosophy and religious studies
	CAH23: Combined and general studies	CAH23-01: Combined and general studies
CAH24: Media, journalism and communications	CAH24-01: Media, journalism and communications	
Education and teaching	CAH22: Education and teaching	CAH22-01: Education and teaching
Design, and creative and performing arts	CAH25: Design, and creative and performing arts	CAH25-01: Creative arts and design
		CAH25-02: Performing arts
Natural and built environment	CAH06: Agriculture, food and related studies	CAH06-01: Agriculture, food and related studies
	CAH13: Architecture, building and planning	CAH13-01: Architecture, building and planning

Broadly defined subject group	CAH level 1 group	CAH level 2 group
	CAH26: Geography, earth and environmental studies	CAH26-01: Geography, earth and environmental studies

2. Table B2 shows the groupings of entry qualifications that we have decided to use as benchmarking factors. We have decided to use these groupings as follows:
- 11 entry qualification groups as benchmarking factors for the full-time continuation, completion and progression measures.
 - 5 entry qualification groups as benchmarking factors for the part-time and apprenticeship continuation and completion measures.
 - 3 entry qualification groups as benchmarking factors for the part-time and apprenticeship progression measures

Table B2: Groupings of entry qualifications used as benchmarking factors

3 groups of entry qualifications	5 groups of entry qualifications	11 groups of entry qualifications	Detailed entry qualification group
Higher education qualifications, and other qualifications reported by non-UK domiciled students	Higher education qualifications, and other qualifications reported by non-UK domiciled students	Higher education level qualifications on entry	Higher education qualification: first degree
			Higher education qualification: other undergraduate
			Higher education qualification: postgraduate
		Other qualifications reported by non-UK domiciled students	Other qualifications reported by non-UK domiciled students
A-levels, international baccalaureate, BTECs (DDM or higher) and other Level 3 qualifications at 105 tariff points or higher	A-levels, international baccalaureate, BTECs (DDM or higher) and other Level 3 qualifications at 105 tariff points or higher	A-levels (AAA or higher)	A-level: A*A*A*A*
			A-level: A*A*A*A
			A-level: A*A*AA
			A-level: A*AAA
			A-level: AAAA
			A-level: A*A*A*
			A-level: A*A*A
			A-level: A*AA
			A-level: AAA

3 groups of entry qualifications	5 groups of entry qualifications	11 groups of entry qualifications	Detailed entry qualification group
		A-levels (ABB or higher)	A-level: AAB
			A-level: AAC
			A-level: ABB
		A-levels (BCC or higher) or international baccalaureate	A-level: ABC
			A-level: ACC
			A-level: BBB
			A-level: BBC
			A-level: BCC
			International baccalaureate
		A-levels (CDD or higher)	A-level: CCC
			A-level: CCD
			A-level: CDD
		A-levels (DDD or lower, other Level 3 at 105 tariff points or higher, or 2 A-levels and 1 BTEC)	A-level: DDD
			A-level: Below DDD
			2 A-levels and 1 BTEC
			>115 tariff points
			>105 tariff points
		BTECs (at least DDM), or 1 A-level and 2 BTECs	1 A-level and 2 BTECs
			BTEC: D*D*D*
			BTEC: D*D*D
			BTEC: D*DD
BTEC: DDD			
BTEC: DDM			
BTECs (lower than DDM), access and foundation courses, or other Level 3 at 65 tariff points or higher, none, unknown or other entry qualifications	BTECs (lower than DDM)	BTECs (lower than DDM)	BTEC: DMM
			BTEC: MMM and below
			BTEC: unknown grades
BTECs (lower than DDM), access and foundation courses, or other Level 3 at 65 tariff points or higher	Access and foundation courses, or other Level 3 at 65 tariff points or higher	Access and foundation courses, or other Level 3 at 65 tariff points or higher	Access to higher education course
			Foundation course
			>90 tariff points

3 groups of entry qualifications	5 groups of entry qualifications	11 groups of entry qualifications	Detailed entry qualification group
			>80 tariff points
			>65 tariff points
			Other Level 3 qualifications
	None, unknown or other entry qualifications	None, unknown or other entry qualifications	>40 tariff points
			>0 tariff points
			Other qualifications
			No qualifications on entry
			Unknown qualifications on entry



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