

Technical algorithms for 2023 National Student Survey measures

Introduction

1. This document outlines how the key splits and measures for the 2023 National Student Survey are derived.
2. The NSS population is derived using records taken from the HESA Student record, HESA Student Alternative record or ILR. For further education colleges in Northern Ireland, a separate student data return is used and values are mapped to those defined in this document.
3. To have consistency between Office for Students (OfS) outputs, many of the splits are derived from the algorithms defined for the student outcomes and experience measures.¹ Where relevant, these are referenced directly.
4. The 2023 NSS publication uses data with a freeze date of 5 May 2023. All approved amendments to the underlying student data returns up to this freeze date will be incorporated into this release. All provider mergers confirmed up to this freeze date will be incorporated into this release.

Base year

5. This field is not published but is used to link students in the NSS population to the equivalent student record data. In almost all cases base year will be 2021 for the 2023 NSS as the population is defined using the 2021-22 student data return.
6. For a small number of records, base year will be 2020. This is for the following reasons:
 - a. The student was intercalating away from their main course in the 2021-22 academic year. In these cases it is more appropriate to take the course information for the previous year as representative of their main course overall.
 - b. The student was dormant in the 2021-22 academic year and a full data return was not supplied. In these cases the previous year student return must be used to link to a fully populated record.

Mode of study

¹ See <https://www.officeforstudents.org.uk/data-and-analysis/student-outcome-and-experience-measures/documentation/>.

7. This field gives the student's mode of study at the start of the course. It is derived directly from the IPSTARTMODE and may take the following values:
- Apprenticeship.
 - Full-time.
 - Part-time.
 - All modes.
8. 'All modes' is the combination of all apprenticeship, full-time and part-time students in the NSS population.

Level of study

9. This field uses the course and qualification aims to allocate a level of study for the base year. It is derived from the IPLEVEL. Only undergraduates are eligible for the NSS.

Value in NSS publication	Definition
Other undergraduate	IPLEVEL in (OUG, UGCREDIT)
First degree	IPLEVEL = DEG
Undergraduate with postgraduate component	IPLEVEL in (PGTM, PUGD, PUGO)

10. 'All undergraduates' is the combination of the three values above.

Subject level

11. This field gives the subject level by which the data is grouped and may take the following values:
- CAH1, the most broad subject grouping comprising 21 groups.
 - CAH2, comprising 35 groups.
 - CAH3, the most details subject grouping, comprising 167 groups.
 - All subjects.
12. 'All subjects' is the combination of all subjects groups. It is the equivalent to provider-level data.

Subject of study

13. This field gives the subject categorisations of the student's course, based on version 1.3.4 of the Common Aggregation Hierarchy (CAH).² It is defined using the IPSBJ_CAH1, IPSBJ_CAH2 and IPSBJ_CAH3 fields and weighted by FPE.

Full person equivalence (FPE)

14. The FPE is used to weight students who are studying across multiple subject areas. Each student in the NSS population will account for one FPE but this may be split across up to five subjects of study. It is defined directly as SUBWT.

Population

15. This field defines whether the provider is where the student is registered or taught. It will take into account whether a provider was involved in a merger before 5 May 2023.

Provider

16. This field gives the name of UK higher education providers. It also contains total figures for England, Scotland, Wales, Northern Ireland and UK where appropriate.

17. For the registered population IPUKPRNRC is used to define the provider.

18. For the taught population IPUKPRNTC is used to define the provider.

Question

19. This field gives the number and wording of questions and themes in the NSS.

20. The 2023 NSS comprises 25 core questions, followed by a question on mental wellbeing. Students registered at providers in England are then asked a further question on freedom of expression and students registered at providers in Northern Ireland, Scotland and Wales are asked an overall satisfaction question.

21. All questions with the exception of overall satisfaction use a four-point item-specific response scale. The overall satisfaction question uses a five-point agreement response scale.

22. This field also contains the names of themes, which are groups of themed questions. See Annex A for a list of the 2023 NSS questions grouped into themes.

Positivity measure

23. For each question, this field is calculated as the number of positive responses divided by the number of responses, excluding 'this does not apply to me', presented as a percentage. The calculation is made using values weighted by FPE.

24. This field is derived differently for themes.

² See <https://www.hesa.ac.uk/support/documentation/hecos/cah>.

Theme measures³

25. The positivity measure for themes is not simply an average of the questions within the given theme. The algorithm accounts for students who do not complete all questions within a theme, either by dropping out of the survey or selecting 'this does not apply to me'.
26. Each respondent to the NSS has a value calculated for each theme. This is calculated as the number of positive responses to the questions within that theme divided by the number of responses to the questions in the theme, excluding 'this does not apply to me'. This gives the student's theme value.
27. For each published theme measure, the mean student theme value is calculated for all students within the given publishing unit. If that unit includes subject, then the student theme value is weighted by FPE.

Suppressions

28. Data is suppressed when the response rate for the unit is less than 50 per cent. This is to control the risk that the views of respondents are different from the views of the non-respondents, making the estimates less accurate. Statistics related to these units are entirely removed from the published results. See example a, in the table below, which is suppressed because fewer than 50 of the 100 students in the eligible population responded to the survey.
29. Suppression is applied when fewer than 10 individual students within the unit responded to the NSS. We do this to reduce the risk that anyone looking at the NSS results could identify how an individual student responded. Statistics related to these units are entirely removed from the published results. See example b, in the table below, which is suppressed because only eight students responded.
30. Suppression is applied when the response rate for a publication unit is 100 per cent, and all, or nearly all, the students responded negatively to a particular question. This is to ensure that students feel able to honestly report poor quality, without risk of being identified. This suppression is very rare; when it occurs, we indicate that the positivity measure for the question is very low using the marker "DPL" (Data protection low), but otherwise provide minimal information. See examples c, d and e, in the table below.
31. When, for a publication unit, a theme includes a question that is DPL suppressed, the theme measure is suppressed. In this case, publishing the theme measure could allow data users to infer information about the suppressed DPL measure. We therefore suppress the theme measure too, and mark it as "DP" (data protection).

32. Examples:

Ex.	Number in population	Number of responses	Number of positive responses	Number of negative responses	Suppressed ?	Reason
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³ See 'Publication of theme measures for the 2023 National Student Survey', available at [Consultation on the general approach to publication of the National Student Survey: Analysis of responses and decisions - Office for Students](#)

a.	100	46	42	4	Yes	Response rate is below 50%
b.	10	8	6	2	Yes	Fewer than 10 students responded
c.	100	100	0	100	Yes	Everyone in the population responded negatively
d.	100	100	1	99	Yes	Response rate was 100% and only one student was positive
e.	100	99	0	99	No	Only suppressed if response rate is 100%
f.	100	100	100	0	No	Very positive cases will not be suppressed
Ex.	Number in population	Description	Theme Measure	Suppressed?	Reason	
g.	100	Theme score for examples a-f	DP	Yes	One or more of the individual positivity measures (examples c. and d.) contributing to the theme score are DPL suppressed	

Annex A: NSS 2023 questionnaire

Teaching on my course
1. How good are teaching staff at explaining things?
2. How often do teaching staff make the subject engaging?
3. How often is the course intellectually stimulating?
4. How often does your course challenge you to achieve your best work?
Learning opportunities
5. To what extent have you had the chance to explore ideas and concepts in depth?
6. How well does your course introduce subjects and skills in a way that builds on what you have already learned?
7. To what extent have you had the chance to bring together information and ideas from different topics?
8. To what extent does your course have the right balance of directed and independent study?
9. How well has your course developed your knowledge and skills that you think you will need for your future?
Assessment and feedback
10. How clear were the marking criteria used to assess your work?
11. How fair has the marking and assessment been on your course?
12. How well have assessments allowed you to demonstrate what you have learned?
14. How often does feedback help you to improve your work?
Academic support
15. How easy was it to contact teaching staff when you needed to?
16. How well have teaching staff supported your learning?
Organisation and management
17. How well organised is your course?
18. How well were any changes to teaching on your course communicated?
Learning resources
19. How well have the IT resources and facilities supported your learning?
20. How well have the library resources (e.g. books, online services and learning spaces) supported your learning?
21. How easy is it to access subject specific resources (e.g. equipment, facilities, software) when you need them?
Student voice
22. To what extent do you get the right opportunities to give feedback on your course?
23. To what extent are students' opinions about the course valued by staff?
24. How clear is it that students' feedback on the course is acted on?
Other questions

25. How well does the students' union (association or guild) represent students' academic interests?

26. How well communicated was information about your university/college's mental wellbeing support services?

27. During your studies, how free did you feel to express your ideas, opinions, and beliefs?

28. Overall, I am satisfied with the quality of the course.