Analysis of the 2021 National Student Survey COVID-related questions: method notes

These notes accompany the analysis (in the form of interactive charts and a datafile) first published on 15 July 2021. The analysis shows the agreement rates for the 6 COVID-related questions, split by various student and course characteristics.

Agreement rates and response rates

Like the other National Student Survey questions, the COVID-related questions ask students whether they agree with a statement about the student experience. The response options are

- definitely agree
- mostly agree
- neither agree nor disagree
- mostly disagree
- definitely disagree
- not applicable

The analysis shows the agreement rate. This is calculated as the number of respondents who gave the response option 'definitely agree' or 'mostly agree', divided by the number of respondents who answered the question with a response option other than 'not applicable', shown as a percentage.

The analysis also shows the response rates for each group and each question. These are calculated as the number of students in the group who responded to the question with a response option other than 'not applicable', divided by the total number of students on the National Student Survey target list in that group. The response rates are lower than for the core questions partly because they were not asked of telephone respondents.

Confidence intervals

We have calculated confidence intervals around the agreement rates. These show a range within which we are confident that the true value for the population falls. Generally, the smaller the number of responses, the larger the confidence interval. Data users are encouraged to consider the confidence interval as well as the agreement rates when exploring the data, particularly when comparing agreement rates. In general, if two agreement rates have overlapping confidence intervals, they cannot be regarded as significantly different.

The confidence intervals shown in the charts are calculated using the Wilson method. Further information about the Wilson method is provided at https://www.officeforstudents.org.uk/advice-and-guidance/student-information-and-data/national-student-survey-nss/questions-about-the-nss-data/ under the question 'What are the "confidence intervals" attributed to the data?'.

The confidence level shown is 95 per cent. The calculation incorporates an adjustment for multiple comparisons, which is carried out using the Bonferroni method (Benjamini and Yekutieli, 2001)[1]. For the analysis shown on the first dashboard 'Sector results', we take the possible number of comparisons to be 60, which is calculated as the total number of questions (6) multiplied by the number of national groupings (5), multiplied by the number of modes (2). This gives an adjusted critical value of 3.34. For the second dashboard 'Results by characteristic', we take the possible

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[1] Benjamini, Yoav; Yekutieli, Daniel. 'The control of the false discovery rate in multiple testing under dependency.' Ann. Statist. 29 (2001), no. 4, 1165--1188. doi:10.1214/aos/1013699998

number of comparisons to be 126, which is calculated as the total number of questions (6) multiplied by the maximum number of categories within a characteristic group (21). This gives an adjusted critical value of 3.54.

This approach to multiple comparisons is cautious and will tend to overstate uncertainty for those users who view only a few estimates.

Quality notes

38.6 per cent of eligible students responded to the COVID-related questions. For some of the characteristic groups, response rates are considerably lower. There is a risk that respondents may differ from non-respondents in ways that would make our estimates less accurate: this is known as non-response bias. We evaluated this by weighting the data to correct for differing response rates between student groups and comparing the weighted and unweighted estimates. We found very little difference between the two sets of estimates, which is why we have based our analysis on the raw, unweighted data. It is still possible that non-response bias exists, but in relation to a student characteristic that is not captured in the data we analysed.

COVID-related question 4 asks respondents whether or not they agree with the question: 'My university or college has taken sufficient steps to protect my physical safety from the virus during the Covid-19 pandemic (e.g. providing protective equipment such as masks, social distancing on campus, offering distance learning opportunities)'. In contrast with the other questions, the agreement rate for this question is lower for part-time students than it is for full-time students. Viewing the pattern of responses, we think it is likely that some distance learners who are studying part-time used the 'mostly disagree', 'definitely disagree' and 'neither agree nor disagree' to express that this question was not applicable to them. We have published the agreement rates for part-time students to COVID-related question 4 for completeness, but we recommend they are viewed with caution.