

Newcastle National Student Survey data: SAgE comparisons

In this report we describe some important findings from Newcastle's *National Student Survey* (NSS) data, dating 2018–2022 (inclusive). Specifically, the aim of our analysis is to investigate differences in various NSS measurements of student experience, between schools in the faculty of Science, Agriculture and Engineering (SAgE) and between home and international students.

The nine headline categories of NSS questions are:

1. Overall satisfaction	2. Teaching	3. Learning Opportunities
4. Assessment & Feedback	5. Academic Support	6. Organisation & Management
7. Learning Resources	8. Learning Community	9. Student Voice

There are various questions within each of these categories. The University Planning Office (thanks in particular to Andrew Sutton) provided us with average percentage scores across students in each of the four SAgE Schools (Computing; Engineering; Mathematics, Statistics & Physics; Natural & Environmental Sciences), broken down by domicile (classed as 'UK'; 'EU'; 'Other'); scores for questions within each of the nine headline categories are then averaged to obtain overall percentage student satisfaction scores for each of the areas shown in the table above.

Data visualisation

Fig. 1 shows overall NSS student satisfaction scores (category 1 in the table above), by SAgE school and domicile, from 2018–2022 (inclusive); the Appendix provides the same plots for each of the other eight categories. For each SAgE school, the plots in Fig. 1 generally indicate a negative trend in overall student satisfaction scores since 2018, with a Faculty low of around 60% in 2021 and some signs of recovery from this low in 2022. It is likely that the Covid-19 pandemic has played a significant role here; the apparent recovery in 2022, at the Faculty level, is evidently being driven by a significant post-Covid recovery in overall student satisfaction in the School of Computing (and to a lesser extent in the School of Engineering), with no evidence (yet) of a post-Covid 'bounce-back' in the Schools of Mathematics, Statistics & Physics (MSP) and Natural & Environmental Sciences (SNES). Although Computing appears to be the only School in SAgE to have made significant improvements since the pandemic, these improvements – in each domicile group – come from rather dramatic drops in student satisfaction scores between 2019–2021 (to less than 40% for EU students); the most recent NSS places student feedback scores from all groups (UK/EU/Other, and for all Schools) within ten percentage points of the faculty average. There was limited data returned from international students in MSP and SNES, hence the lack of information in the charts for EU and 'Other' students in these schools.

Figs. 2–9 in the Appendix describe changes in NSS scores in the same way as Fig. 1, for categories 2–9 in the table above respectively. Generally, across most categories, we see similar patterns to those observed in Fig. 1 for overall student satisfaction. For example, a general negative trend in scores since 2018, with an apparent recovery in 2022, at the Faculty level, being driven largely by substantial 'bounces-backs' in satisfaction scores in Computing and to a lesser extent Engineering. It is interesting to note that in the Teaching, Learning Opportunities, Assessment & Feedback, Academic Support and Organisation Management categories, EU students were consistently more

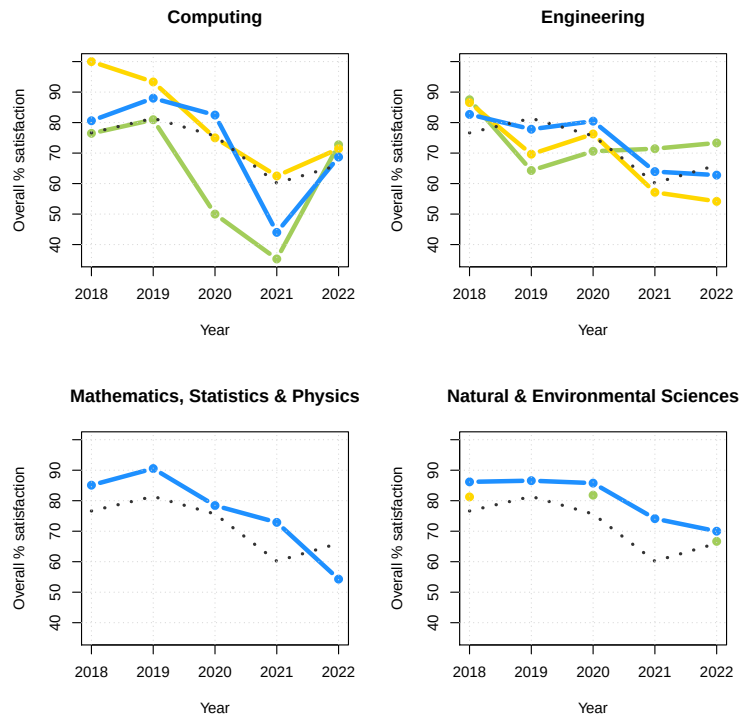


Figure 1: SAgE NSS “Overall” student satisfaction scores. Mean scores are shown for **UK STUDENTS**, **EU STUDENTS** and **‘OTHER’ STUDENTS**; the **SAgE Faculty average** is also shown as a dotted line, for comparison.

dissatisfied than UK students – and ‘Other’ students consistently more satisfied than UK students – in the School of Computing. Also of interest is the fact that the Learning Resources category shows the least difference in student satisfaction across the three domicile groups; and that Computing (and to a lesser extent Engineering) have recently observed marked increases in levels of students’ satisfaction with their Learning Communities – particularly international students.

Significant observations

Through linear modelling of the data shown in Figs. 1–9 we can identify statistically significant features of the data. For example:

- Teaching**
 Statistically significant deterioration in scores through time for Computing, Engineering and MSP, with some evidence of differences between domiciles in Engineering (‘Other’ significantly worse than UK and EU).
- Learning Opportunities**
 Statistically significant deterioration in scores through time for all domicile groups and in all Schools. Significant differences in domicile groups for Engineering in 2020 and 2021.
- Learning Community**
 Significant deterioration in scores through time for Computing and Engineering (but with an almost full recovery in Computing, especially for international students).

- **Student Voice**

Significant deterioration in scores through time for all schools (and for all domicile groups within schools), but with an almost full recovery in Computing.

- **Overall satisfaction**

Significant deterioration in scores through time for all domicile groups in Computing, Engineering and SNES, but with an almost full recovery in Computing – especially for EU students.

Appendix

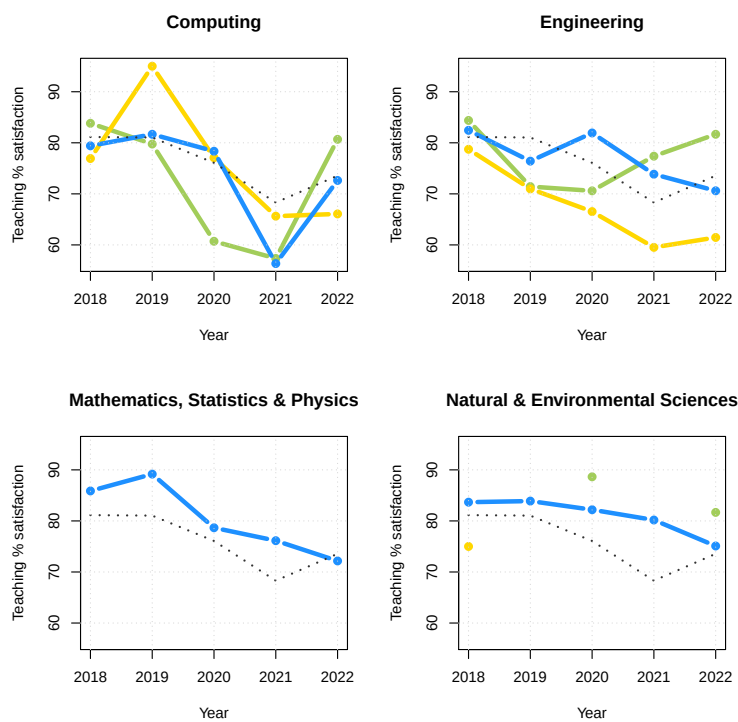


Figure 2: SAgE NSS student satisfaction scores for “Teaching”. Mean scores are shown for each SAgE school, for **UK STUDENTS**, **EU STUDENTS** and **‘OTHER’ STUDENTS**; the SAgE Faculty average is also shown as a dotted line, for comparison.

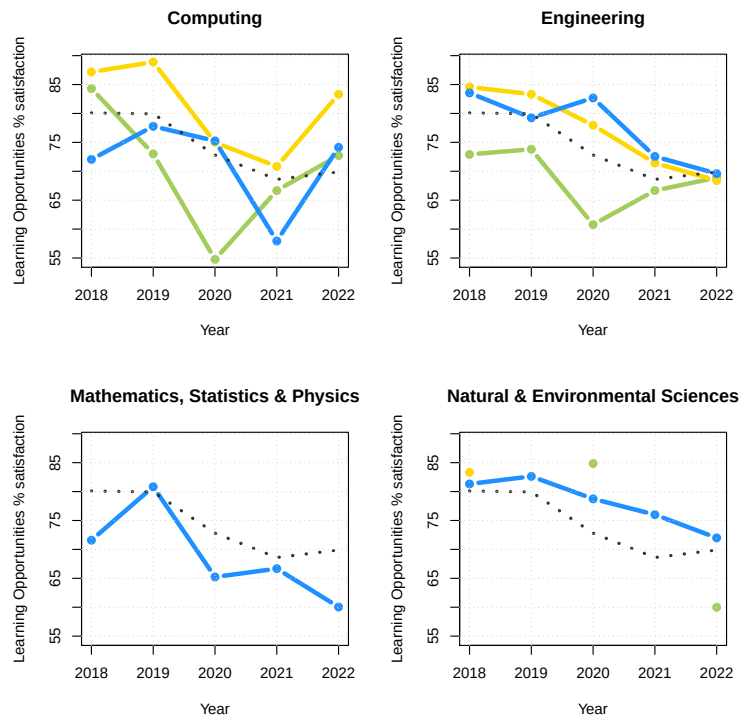


Figure 3: SAgE NSS student satisfaction scores for “**Learning Opportunities**”. Mean scores are shown for **UK STUDENTS**, **EU STUDENTS** and **‘OTHER’ STUDENTS**; the **SAgE Faculty average** is also shown as a dotted line, for comparison.

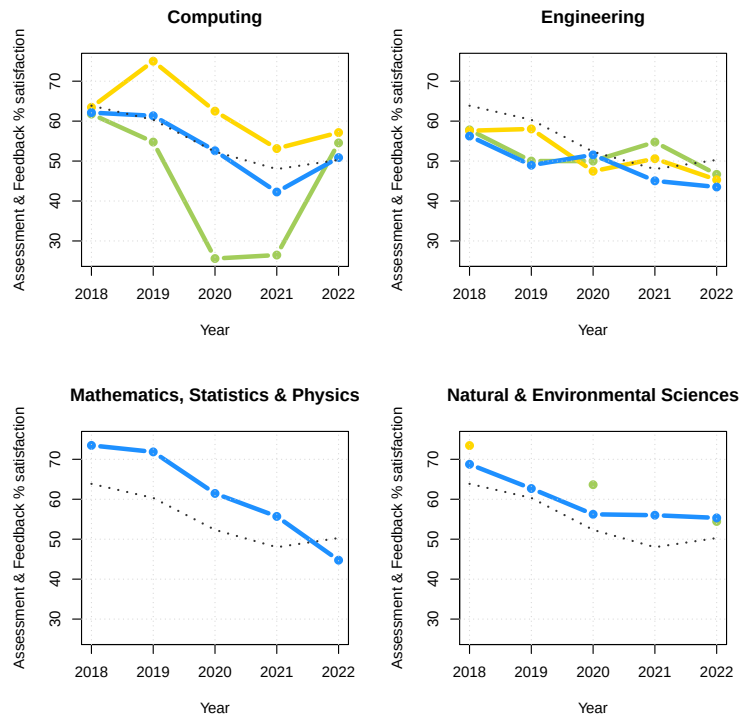


Figure 4: SAgE NSS student satisfaction scores for “**Assessment & Feedback**”. Mean scores are shown for **UK STUDENTS**, **EU STUDENTS** and **‘OTHER’ STUDENTS**; the **SAgE Faculty average** is also shown as a dotted line, for comparison.

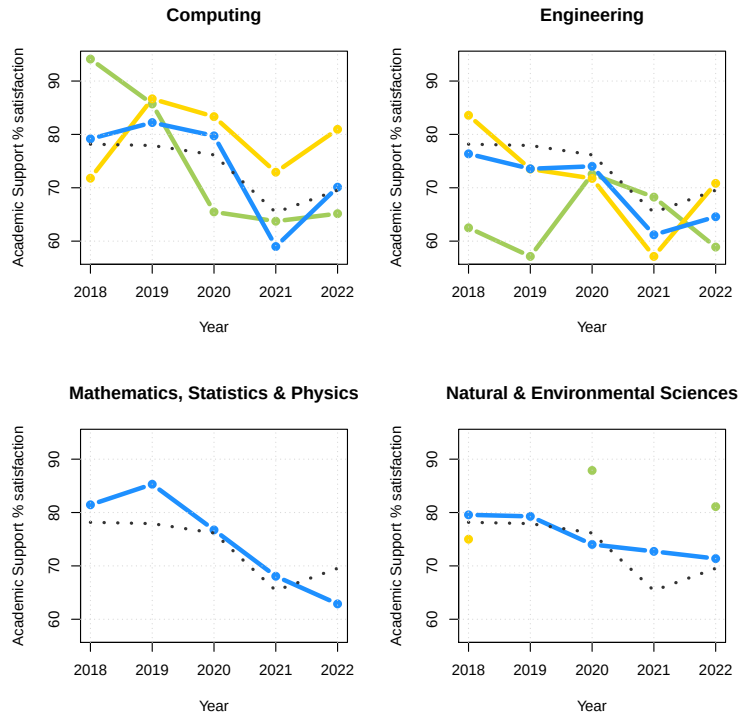


Figure 5: SAgE NSS student satisfaction scores for “Academic Support”. Mean scores are shown for **UK STUDENTS**, **EU STUDENTS** and **‘OTHER’ STUDENTS**; the **SAgE Faculty average** is also shown as a dotted line, for comparison.

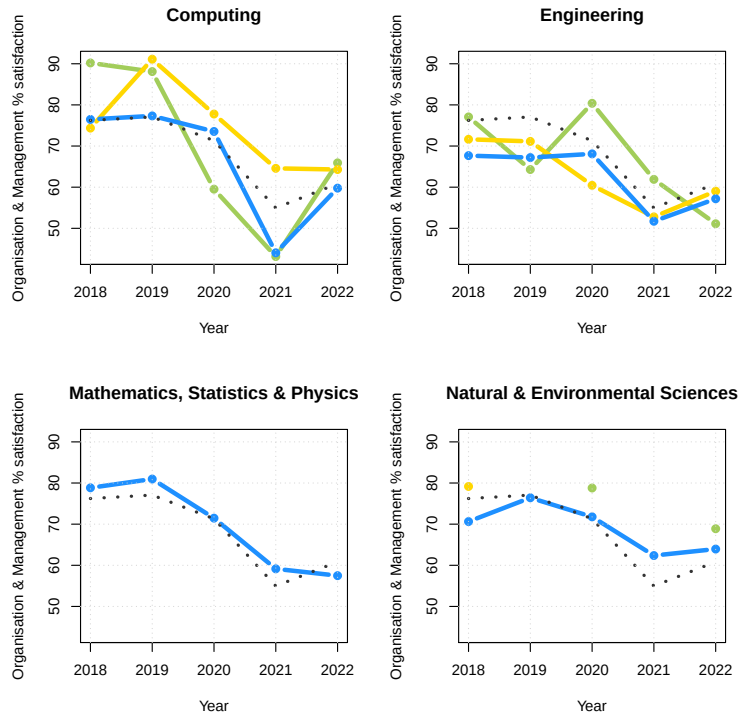


Figure 6: SAgE NSS student satisfaction scores for “Organisation & Management”. Mean scores are shown for **UK STUDENTS**, **EU STUDENTS** and **‘OTHER’ STUDENTS**; the **SAgE Faculty average** is also shown as a dotted line, for comparison.

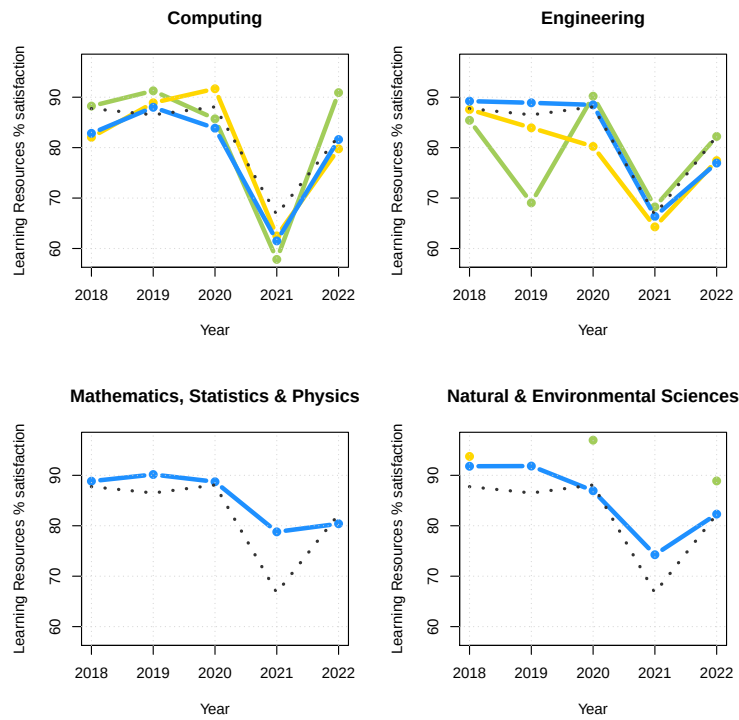


Figure 7: SAgE NSS student satisfaction scores for “**Learning Resources**”. Mean scores are shown for **UK STUDENTS**, **EU STUDENTS** and **‘OTHER’ STUDENTS**; the **SAgE Faculty** average is also shown as a dotted line, for comparison.

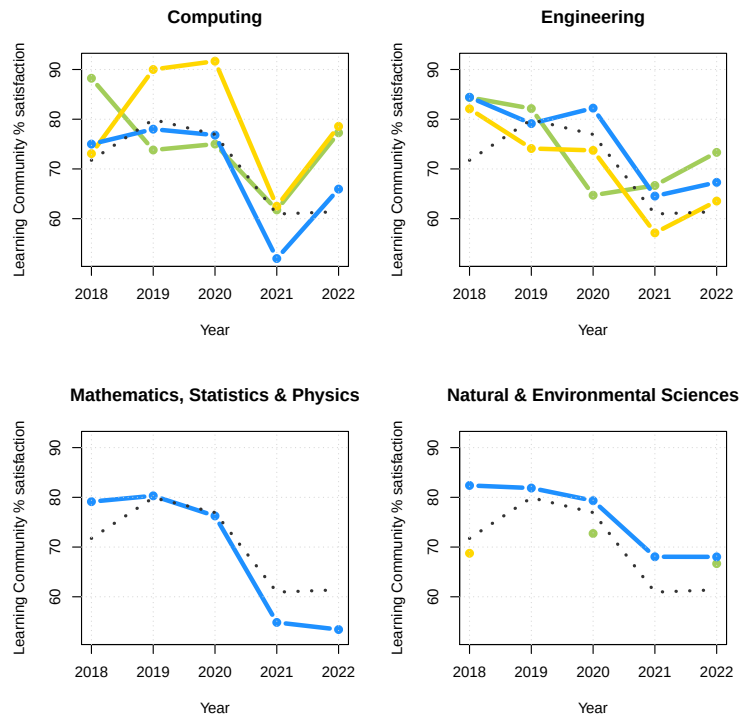


Figure 8: SAgE NSS student satisfaction scores for “**Learning Community**”. Mean scores are shown for **UK STUDENTS**, **EU STUDENTS** and **‘OTHER’ STUDENTS**; the **SAgE Faculty** average is also shown as a dotted line, for comparison.

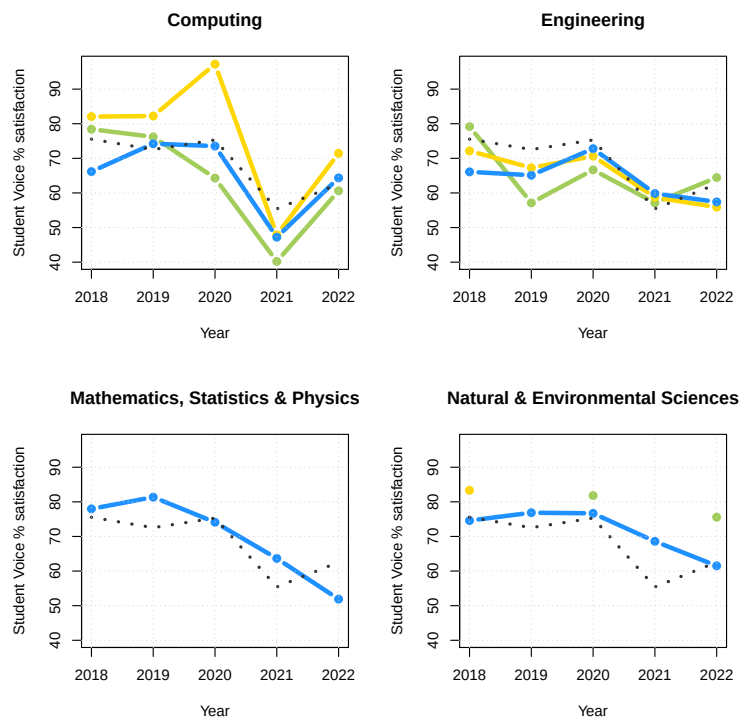


Figure 9: SAgE NSS student satisfaction scores for “Student Voice”. Mean scores are shown for **UK STUDENTS**, **EU STUDENTS** and **‘OTHER’ STUDENTS**; the **SAgE Faculty average** is also shown as a dotted line, for comparison.