

Course Evaluation Response Rates Fall 2018 to Spring 2023

Sonya Buffone, Director, Teaching Assessment Processes

Kathy Becker, Specialist, Teaching Assessment Processes

Overview

Starting in 2018, student course evaluations at the University of Waterloo began to be delivered using the online platform Evaluate (now known as Perceptions). The Teaching Assessment Processes (TAP) office monitors and reports annually on course evaluation survey data and response rates. This is the second annual report on response rates.

Data Sources

- Perceptions survey platform response rate data: Fall 2018 to Spring 2023
- Institutional Analysis and Planning Student Full Time Equivalent (FTE) data

To Keep in Mind

- Fall 2018 to Fall 2021: response rate data is based on several different surveys with different numbers of questions on each (see Table 1).
 - Some Faculties were using multiple surveys with different numbers of questions in each.
 - A total of 17 different surveys were being used across campus during this period.
- Winter 2020: response rate data is included despite the fact that numerical scores for that term remain restricted to course instructor due to the abrupt shift to remote learning that occurred.
- Spring 2020 to Fall 2021: response rate data includes additional COVID-specific surveys that were implemented in some Faculties.
- Winter 2022 to 2022-2023: response rate data is based on one common survey (Student Course Perceptions, or SCP).

Overall Response Rates: Past Five Years

The overall response rate for the past five academic years was 41.1%. Figure 1 shows the response rate for each academic year since online survey administration was adopted. It illustrates that the response rate for 2022-2023 (34.4%) was higher than the response rate for the prior year (33.6%). 2022-2023 is the first academic year since adopting online survey administration in which Waterloo has seen an increase in response rate. 2022-2023 is also the first full academic year that Waterloo used a common survey (SCP). It is possible that the increase in response rate observed in 2022-2023 is partly attributable to the use of a survey instrument with a smaller number of questions (7 ratings + 3 open-ended) than the surveys that had previously been in use. Table 1 displays the number of questions on each pre-SCP Faculty survey.

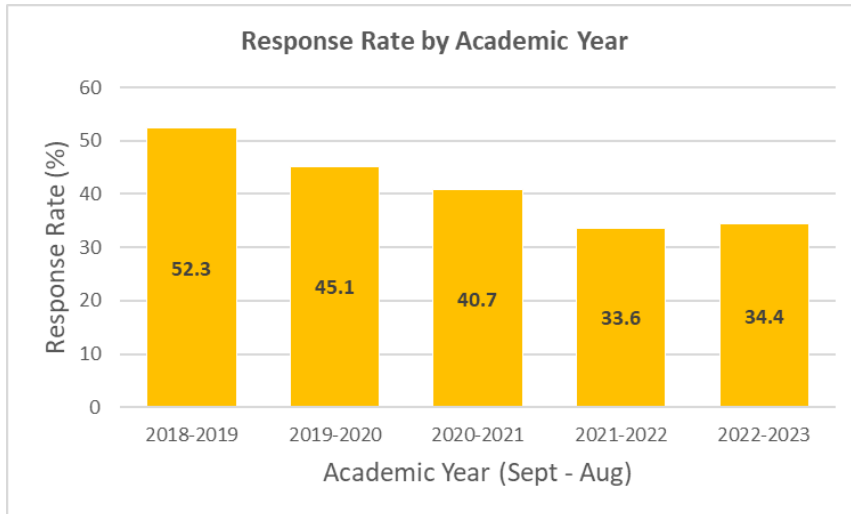


Figure 1: Overall response rate (%) by academic year

| Faculty | # Ratings Questions | # Open-ended Questions | # Total |
|-------------|---------------------|------------------------|---------|
| Arts | 10 | 3 | 13 |
| Engineering | 18 | 2 | 20 |
| Environment | 16 | 2 | 18 |
| Health | 10 | 3 | 13 |
| Mathematics | 15 | 6 | 21 |
| Science | 11 | 2 | 13 |

Table 1: Number of questions on pre-SCP Faculty surveys administered to students in undergrad classes from Fall 2018 to Fall 2021

Once again, we drilled down into termly data for the past five years. Figure 2 shows that there continues to be termly variability in response rates, with Fall terms generally experiencing the highest overall response rate in any academic year. It also shows a trend line with a slope of (-1.75). Figure 3 shows that the trend line for response rates based on SCP surveys has a much less negative slope (-0.20) than the trend line in Figure 2.

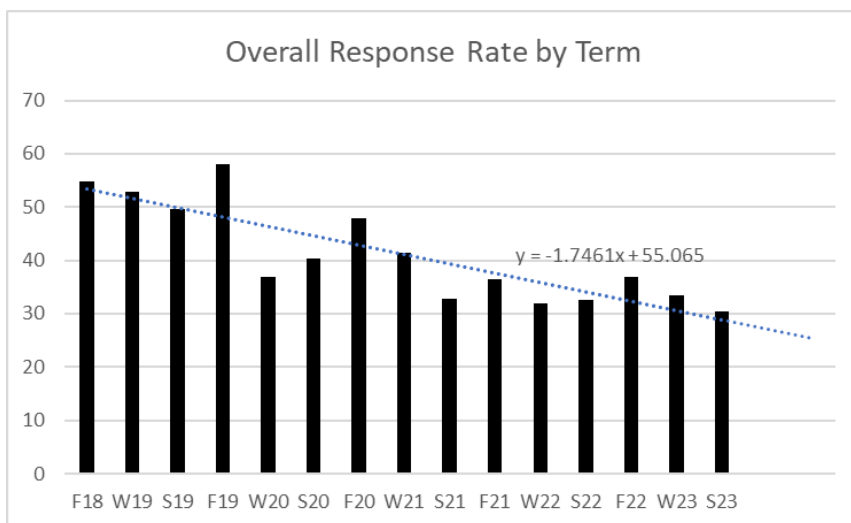


Figure 2: Overall response rate (%) by term

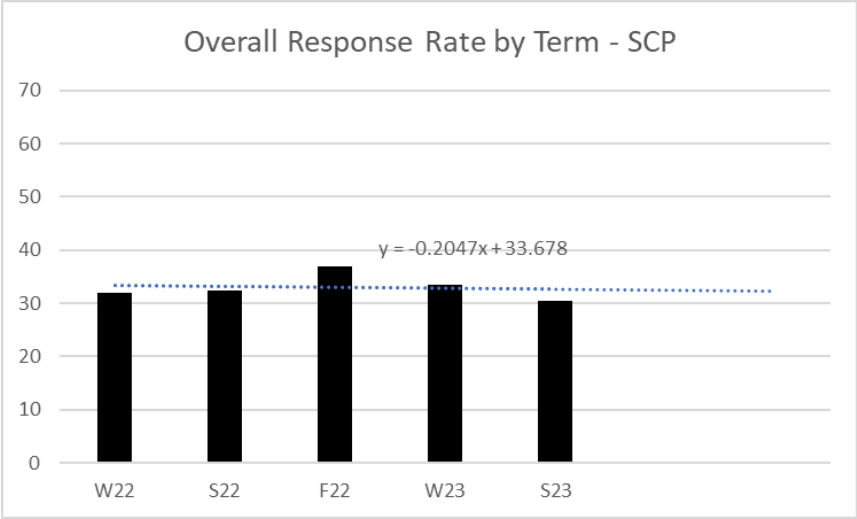


Figure 3: Overall response rate (%) by term based on SCP surveys

We then considered response rates by Faculty (see Figure 4 and Table 2). Four of six Faculties experienced an increase in response rates in the last academic year (2022-2023): Health, Arts, Mathematics, and Science. The remaining two Faculties (Engineering and Environment) experienced a decrease in response rates in the last academic year. In the next section, we examine changes in the number of course evaluations being administered over this period.

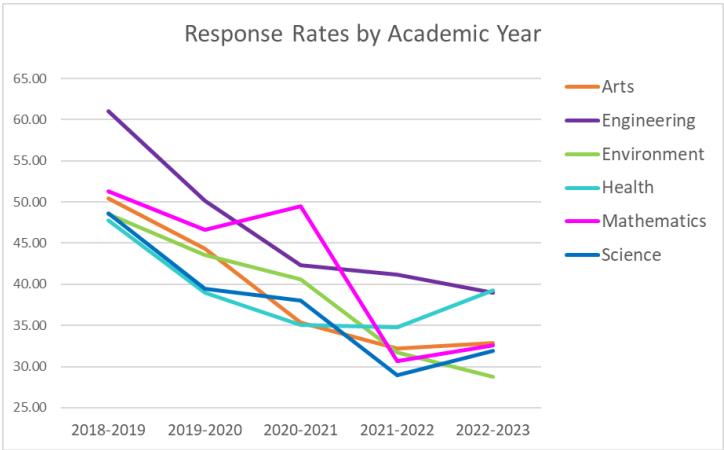


Figure 4: Response rates (%) for each Faculty by academic year

| | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 5-Year Change |
|-------------|-----------|-----------|-----------|-----------|--------------|---------------|
| Arts | 50.5% | 44.3% | 35.4% | 32.2% | 32.9% | -17.60 |
| Engineering | 61.0% | 50.1% | 42.3% | 41.2% | 39.0% | -22.04 |
| Environment | 48.6% | 43.6% | 40.6% | 31.7% | 28.7% | -19.82 |
| Health | 47.8% | 39.0% | 35.1% | 34.8% | 39.3% | -8.52 |
| Mathematics | 51.3% | 46.6% | 49.5% | 30.7% | 32.6% | -18.75 |
| Science | 48.6% | 39.4% | 38.0% | 29.0% | 31.9% | -16.69 |

Table 2: Response rates (%) for each Faculty by academic year, with 5-year change

Change in Number of Course Evaluations Administered

We wondered about the relationship between respondent burden, or survey fatigue¹ more specifically, and response rates. Figure 5 and Table 3 show the count of course evaluation surveys administered in each academic year. Notably, five of six Faculties administered fewer course evaluation surveys in 2022-2023; Arts was the only Faculty to administer a higher number of course evaluation surveys in 2022-2023 compared to the prior academic year. This led us to wonder whether a change in enrolment was the reason for the decreases in numbers of course evaluation surveys being administered in Engineering, Environment, Health, Mathematics, and Science.

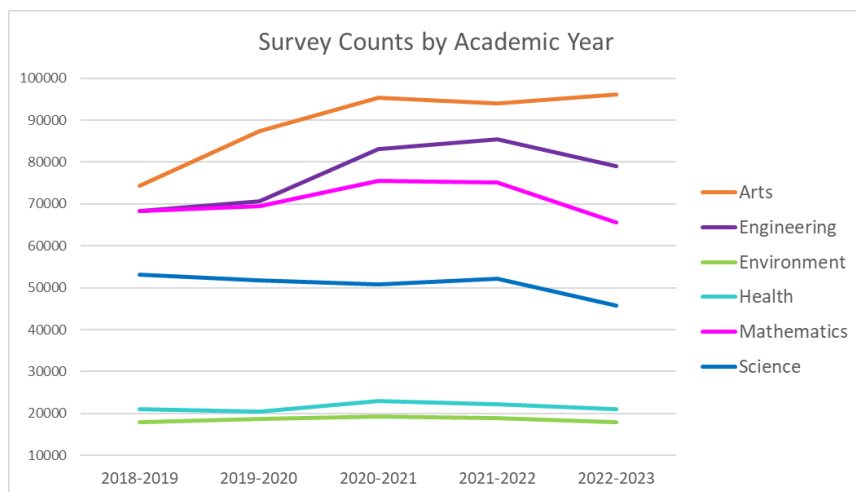


Figure 5: Number of surveys administered by each Faculty by academic year

| | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 5-Year Change |
|-------------|-----------|-----------|-----------|-----------|-----------|---------------|
| Arts | 74302 | 87419 | 95303 | 94039 | 96218 | 29.50% |
| Engineering | 68314 | 70581 | 83158 | 85428 | 79093 | 15.78% |
| Environment | 17929 | 18655 | 19356 | 18901 | 17925 | -0.02% |
| Health | 20994 | 20463 | 23039 | 22294 | 21129 | 0.64% |
| Mathematics | 68240 | 69462 | 75473 | 75090 | 65644 | -3.80% |
| Science | 53171 | 51797 | 50782 | 52109 | 45719 | -14.02% |

Table 3: Number of course evaluations administered by each Faculty by academic year, with 5-year change

Change in Enrolment

Table 4 shows the number of FTE students reported by IAP per Faculty for each of the past five academic years, as well as the change (%) over this period. All Faculties except one (Engineering) experienced a decrease in the number of students in 2022-2023 as compared to the previous year. It's interesting to note that while Arts had a small decrease in the number of students (1.5%), there was a small increase in the number of course evaluation surveys administered (2.3%). And while Engineering saw a small increase in the number of students (1.8%), there was a larger decrease in the number of course evaluation surveys administered (7.4%). As a next step, we compared changes in course evaluations administered with changes in enrolment.

¹ (Porter et al., 2004)

| | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 5-Year Change |
|-------------|-----------|-----------|-----------|-----------|-------------|---------------|
| Arts | 7184 | 7565 | 8020 | 7933 | 7817 | 9% |
| Engineering | 7738 | 7999 | 8241 | 8351 | 8501 | 10% |
| Environment | 2669 | 2690 | 2896 | 2617 | 2529 | -5% |
| Health | 2960 | 2994 | 3263 | 3269 | 3072 | 4% |
| Mathematics | 8058 | 7869 | 9265 | 8527 | 8277 | 3% |
| Science | 6499 | 6722 | 6920 | 6627 | 6401 | -2% |

Table 4: FTE (#) by Faculty, with 5-year change

Change in Course Evaluation Survey Load

Table 5 shows the average number of course evaluations administered per FTE student in each Faculty, as well as the change in survey load over this period. In 2022-2023, there continued to be significant variation in course evaluation survey load between Faculties, ranging from 6.9 surveys per student in Health to 12.3 surveys per student in Arts. Two faculties (Mathematics and Engineering) reduced course evaluation survey load when compared to the prior academic year (9.9% and 9.0% reductions, respectively). Students in the Faculty of Arts were asked to complete 3.8% more course evaluation surveys as compared to the prior academic year, the largest survey load increase of any Faculty.

The Faculty of Health is notable in that it has maintained a student course evaluation survey load of around 7 surveys per student and has experienced the smallest decrease in response rates (8.5%) over this five-year period. Interestingly, the Faculty of Environment has also maintained a student course evaluation survey load of around 7 surveys per student but has experienced a large decrease in response rates (19.8%) over this same period. These differences led us to look more closely for any association between course evaluations per FTE student and response rate.

| | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 5-Year Change |
|-------------|-----------|-----------|-----------|-----------|-----------|---------------|
| Arts | 10.3 | 11.6 | 11.9 | 11.9 | 12.3 | 2.0 |
| Engineering | 8.8 | 8.8 | 10.1 | 10.2 | 9.3 | 0.5 |
| Environment | 6.7 | 6.9 | 6.7 | 7.2 | 7.1 | 0.4 |
| Health | 7.1 | 6.8 | 7.1 | 6.8 | 6.9 | -0.2 |
| Mathematics | 8.5 | 8.8 | 8.1 | 8.8 | 7.9 | -0.5 |
| Science | 8.2 | 7.7 | 7.3 | 7.9 | 7.1 | -1.0 |

Table 5: Course evaluations (#) administered per FTE student by Faculty, with 5-year change (#)

Overall Course Evaluation Survey Load and Response Rate

Figure 6 plots both course evaluations per FTE student and response rates for this five-year period. It shows an increase in response rate coupled with a decrease in survey load for 2022-2023 as compared to the year prior. This suggests a possible inverse interaction between the number of course evaluation surveys administered per student and response rates. The next section examines survey load and response rates by Faculty.

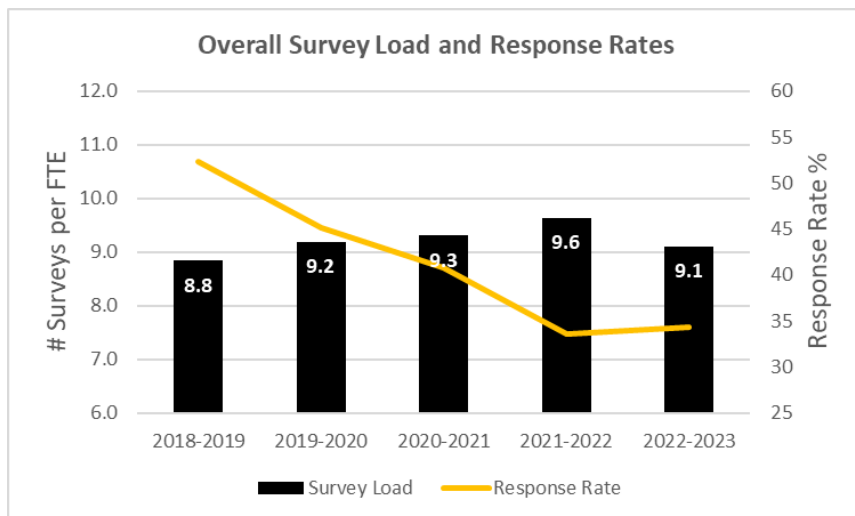


Figure 6: Survey load and response rates by academic year

Course Evaluation Survey Loads and Response Rates by Faculty

An examination of survey load and response rate by Faculty suggests that the relationship between the two is not simple or direct. The Faculty with the highest survey load (Arts) does not have the lowest response rate. And the Faculty with the highest response rate (Engineering) does not have the lowest survey load. Faculty-specific findings are presented below.

Arts

As noted in Table 5 above, the Faculty of Arts has consistently had the highest survey load in each of the past five academic years. The average survey load in Arts over this five-year period (11.6) is well above the overall average survey load for this period (9.2).

Figure 7 shows that Arts began this period with a survey load above 10, the highest initial survey load of any Faculty. Between 2018-2019, survey load increased to above 12. The Arts average response rate for this five-year period is 39.0%, which is below the overall average response rate (41.1%). And as noted in Table 1, the response rates for Fall 2018 to Fall 2021 are based on the Arts survey, which included 30% more questions than the SCP survey.

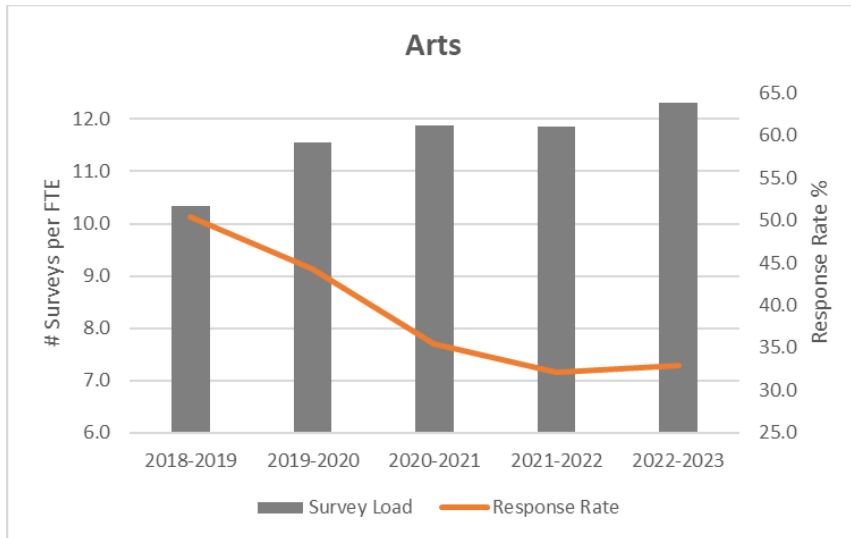


Figure 7: Survey load and response rates by academic year in the Faculty of Arts

Engineering

The Faculty of Engineering has the second-highest average survey load (9.5) over this five-year period, which is above the overall average survey load for this period (9.2). Engineering is the only Faculty (aside from Arts) that surpassed a survey load of 10 during this period (2020-2021 and 2021-2022).

Figure 8 shows that Engineering began this period with a response rate above 55%, the highest of any faculty. So, although survey load has been high, and response rates have fallen, the Engineering average response rate (46.7%) remains above the overall average response rate (41.1%). And as noted in Table 1, the response rates for Fall 2018 to Fall 2021 are based on the Engineering survey, which included twice as many questions compared to the SCP survey.

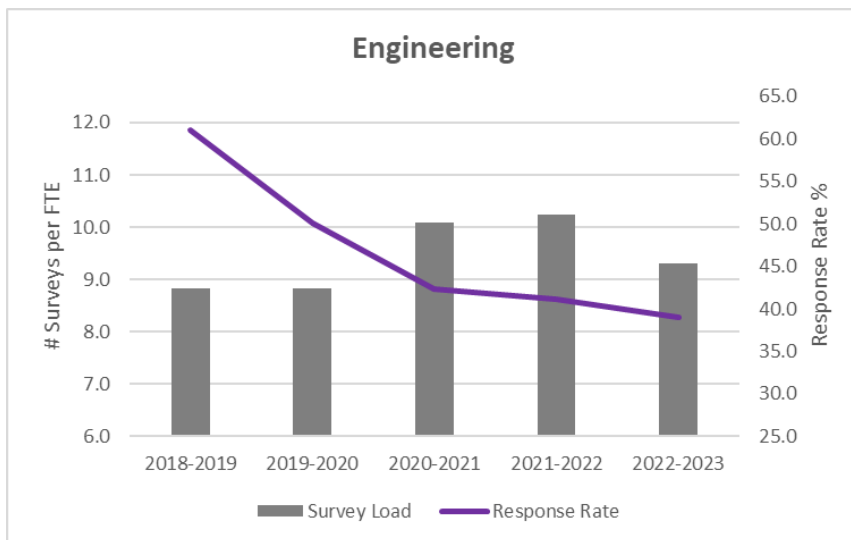


Figure 8: Survey load and response rates by academic year in the Faculty of Engineering

Environment

The Faculty of Environment, along with the Faculty of Health, had the lowest average survey load (6.9) over this five-year period. This is much lower than the overall average survey load for this period (9.2). The Environment average response rate for this five-year period is 38.6%, which is below the overall average response rate (41.1%).

Figure 9 shows that Environment began this period with a relatively high response rate (48.6%) but has experienced a substantial decline (10%) over this period. It's not clear why a Faculty that began this period with a relatively high response rate and maintained a low survey load isn't seeing higher response rates. And as noted in Table 1, the response rates for Fall 2018 to Fall 2021 are based on the Environment survey, which included 80% more questions than the SCP survey.

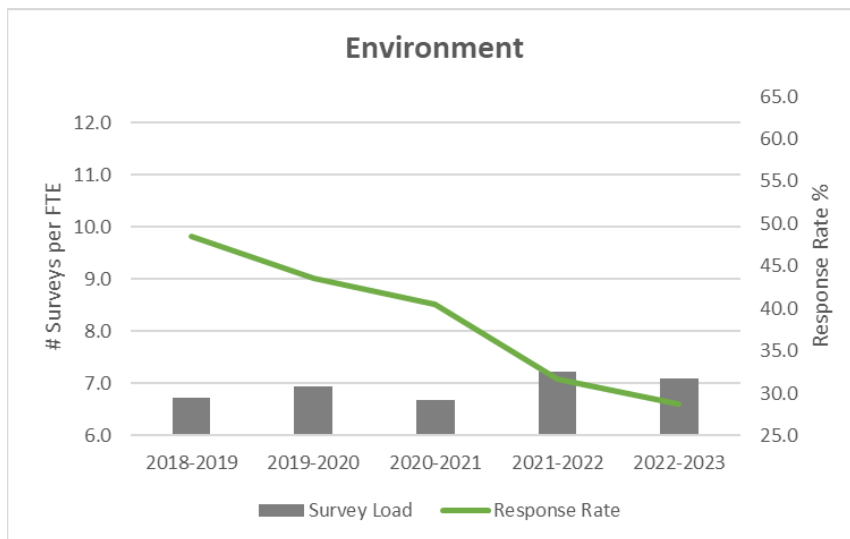


Figure 9: Survey load and response rates by academic year in the Faculty of Environment

Health

The Faculty of Health, along with the Faculty of Environment, had the lowest average survey load (6.9) over this five-year period. This is much lower than the overall average survey load for this period (9.2). The average response rate in Health for this five-year period is 39.2%, which is below the overall average response rate (41.1%).

Figure 10 shows that Health began this period with a relatively high response rate (47.8%) but has experienced a substantial decline (8.6%) over this period. It's not clear why a Faculty that began this period with a relatively high response rate and maintained a low survey load has seen such low response rates; however, Health experienced the largest response rate increase (4.5%) from 2021-2022 to 2022-2023. And as noted in Table 1, the response rates for Fall 2018 to Fall 2021 are based on the Health survey, which included 30% more questions than the SCP survey.

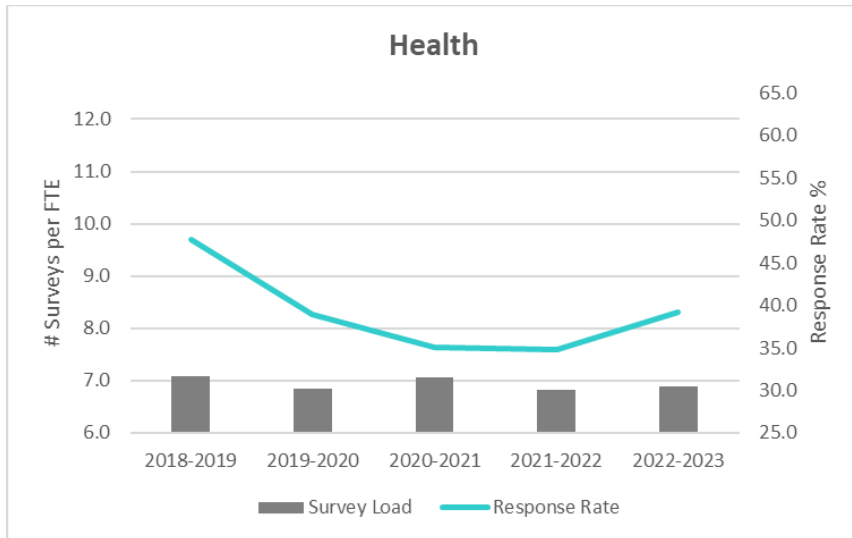


Figure 10: Survey load and response rates by academic year in the Faculty of Health

Mathematics

The average survey load in Mathematics over this five-year period (8.4) is below the overall average survey load for this period (9.2). The average response rate in Mathematics for this same period is 42.1%, which is slightly above the overall average response rate (41.1%).

Figure 11 shows that Mathematics began this five-year period with a high response rate (51.3%) but has experienced a large decline (9.2%) over this period. Mathematics experienced an 18.8% drop in response rates between 2020-2021 and 2021-2022, and this drop corresponded to an increase in survey load of 0.7. In 2022-2023, Mathematics reduced survey load by 0.9 and saw a 2% increase in response rate. And as noted in Table 1, the response rates for Fall 2018 to Fall 2021 are based on the Mathematics survey, which included more than twice as many questions as the SCP survey.

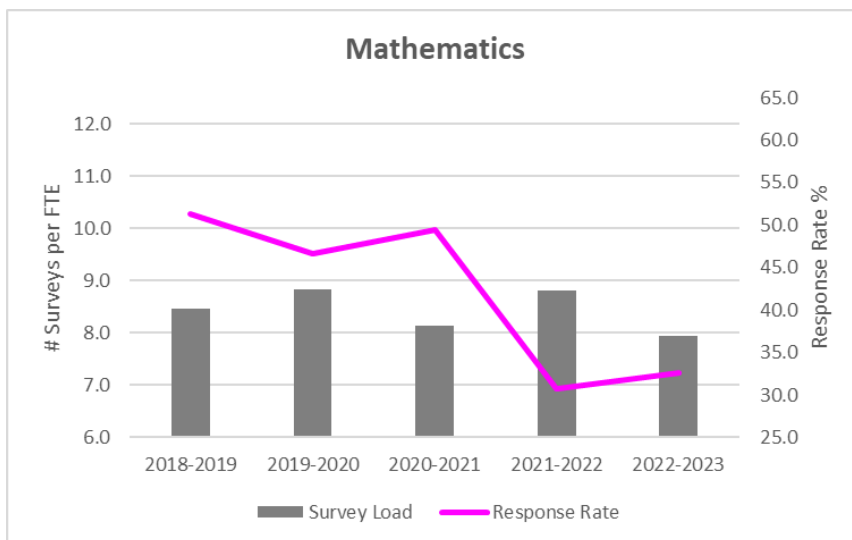


Figure 11: Survey load and response rates by academic year in the Faculty of Mathematics

Science

The average survey load in Science over this five-year period (7.6) is below the overall average survey load for this period (9.2). Science had the lowest average response rate (37.4%) for this same period, which is 3.7% lower than the overall average response rate (41.1%).

Figure 12 shows that Science began this period with a response rate of 48.6% but experienced a substantial decline (11.2%) over this period. And like Mathematics, Science experienced a large drop (9%) in response rates between 2020-2021 and 2021-2022, and this drop corresponded to an increase in survey load of 0.6. In 2022-2023, Science reduced survey load by 0.8 and saw a 3% increase in response rate. And as noted in Table 1, the response rates for Fall 2018 to Fall 2021 are based on the Science survey, which included 30% more questions than the SCP survey.

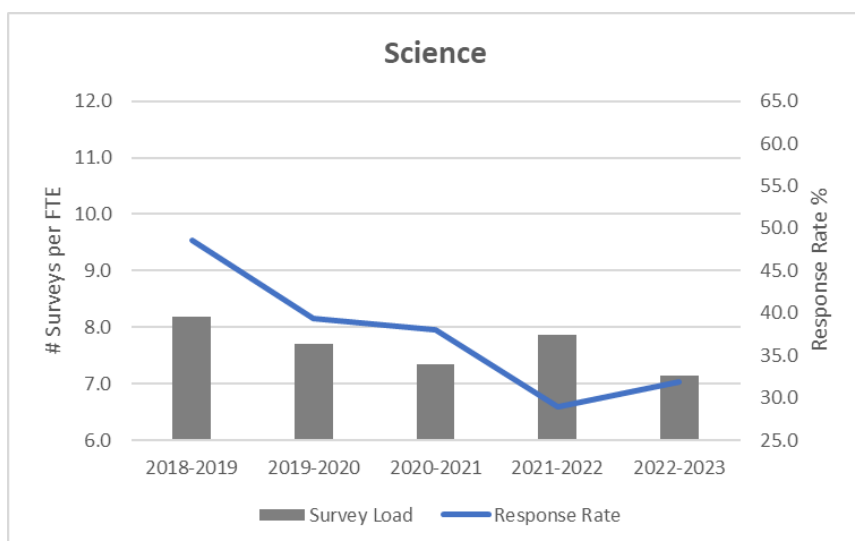


Figure 12: Survey load and response rates by academic year in the Faculty of Science

Conclusion

This analysis was completed to examine changes in response rates. Findings suggest that a combination of factors may be at play:

- Response rates have been declining for some time, but the decline has slowed since the Winter 2022 adoption of the common SCP survey.
- The most recent academic year saw a small increase in overall response rate (+0.74%).
- Findings suggest that a small decrease in the number of course evaluations administered in the last academic year (-0.6 surveys per student) may have contributed to an increased overall response rate.

Next Steps

Declining response rates negatively impact the reliability of SCP survey data. Unreliable SCP data negatively impacts the University's progress toward a more equitable holistic teaching assessment model. The Teaching Assessment Processes (TAP) office undertakes activities to support Faculties in strengthening response rates. The recommended practices listed below can also support response rates.

Faculty and Department SCP Survey Administrators

- Help avoid respondent burden: do not create separate SCP surveys for single course offerings that have secondary components or multiple instructors.
 - Use the existing features of [Perceptions](#) when setting up surveys:
 - in the *Create Surveys* area, use the default *Primary Only* filter - this excludes secondary components;
 - use the *Merge Surveys* feature to combine offerings with multiple instructors into a single survey.
 - The TAP office is available to demonstrate these features or answer any questions!
- Ensure each SCP survey has accurate instructor information:
 - in *Review Surveys* area, scan Instructor column for missing instructors.
- Let instructors know:
 - you have set up SCP survey(s) for their course(s);
 - they can confirm SCP survey setup by logging in to the Perceptions platform;
 - if there are setup inaccuracies, they should let you know; and
 - they are the primary mode for communicating SCP survey details to their students.

Course Instructors

- You are the primary mode for communicating the SCP survey process to students.
- Give students ten minutes during synchronous meet, whether online or in person, to complete course evaluations (SCP survey).
- Communicate with students; a presentation and LEARN announcement are [available online](#).
 - Express your value of and appreciation for ratings and constructive student feedback:
 - Where possible, **provide a specific example** of your past use of student feedback to improve the current course offering. Studies show this is the best motivator for student participation in course evaluation surveys.
 - Share link to [Perceptions](#) survey platform.
 - Affirm anonymity of responses.
 - Inform that results are not released until 48 hours after the Grades Due deadline.
 - Explain how results are used.
 - Numerical data are used in instructor performance reviews.
 - Written comments are seen only by course instructor(s) and used for course improvement.

Support for SCP Administrators and Course Instructors

Contact [Kathy Becker](#), Teaching Assessment Processes Specialist, for support as needed.

Reference

Porter, S. R., Whitcomb, M. E., & Weitzer, W. H. (2004). Multiple surveys of students and survey fatigue. *New Directions for Institutional Research*, 2004(121), 63–73. <https://doi.org/10.1002/ir.101>