



Office of Institutional
Research and Planning
CARLETON UNIVERSITY

2020 NSSE

Summary of Selected Carleton Results from the 2020 National Survey of Student Engagement

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Introduction

The National Survey of Student Engagement (NSSE) is an annual survey which collects data on first-year and final-year undergraduate students. This survey's focus is on assessing the level of student participation and engagement in activities deemed to be educationally effective. NSSE is conducted by Indiana University's Center for Postsecondary Research.

Carleton participates in NSSE every three years. In February 2020, Carleton took part in NSSE for the eighth time. As was done for the previous NSSE administration at Carleton, all students who were in their first or final year were invited to participate in the survey. All together, 3,035 students responded, resulting in a 33% response rate. This included 1,887 first-year respondents, and 1,148 final-year respondents (third-year students in a three-year program and fourth-year students in a four-year program). This year's response rate is lower than previous years', in large part because Carleton cancelled all remaining email reminders to students after March 13th due to the COVID-19 pandemic.

In 2020, 21 Ontario universities participated in NSSE as a consortium. Throughout this summary we compare Carleton results to those of the rest of the Ontario consortium¹, on average. In general, the Ontario consortium is a comparison group for Carleton that is especially meaningful since all Ontario universities are subject to the same provincial policies and funding arrangements. However, it is important to keep in mind that each university has a distinct mission and program mix. In addition, while final-year at Carleton includes students in their last year of both three-year and four-year undergraduate programs, not all universities in Ontario have three-year degree programs. These factors may explain some of the variation.

A Profile of Carleton's NSSE Respondents

Sixty percent of first-year and 61 percent of final-year Carleton respondents were female. This indicates a female response bias. To control for some of this known gender response bias, NSSE weights institutional results to better reflect the actual gender distribution at an institution. The institutional level results in this report for both Carleton and the Ontario Consortium are weighted.

¹ Throughout this summary, including charts and tables, any reference to the Ontario Consortium excludes Carleton (for both comparative purposes and statistical testing). Highlighted differences are statistically significant, unless otherwise noted.

Table 1 shows the breakdown of Carleton respondents by academic Faculty and year level. The distribution of respondents across Faculties is similar to the Faculty distribution of first and final-year students at Carleton.

	First-Year	Final-Year	Total
Faculty of Arts and Social Sciences	503	317	820
Faculty of Public Affairs	474	283	757
Sprott School of Business	131	74	205
Faculty of Science	326	198	524
Faculty of Engineering and Design	453	276	729
Total	1,887	1,148	3,035

Of respondents who were in their final year, 12 percent were in their 3rd year of study and 88 percent were in their 4th year of study. This is a slight under-representation of 3rd year students (in a three-year program) since they accounted for 16% of the population file.

At the time of the survey most first-year respondents were full-time students (97 percent); this proportion was slightly lower for final-year respondents (92 percent).

Forty-eight percent of the first-year respondents reported living on-campus, compared to only 4 percent of final-year respondents.

A first generation status was determined based on a question that asked: “What is the highest level of education completed by either of your parents (or those who raised you)?” Thirty-five percent of Carleton respondents reported that neither parent/guardian had a bachelor’s degree. Compared to the rest of the Ontario consortium, on average, Carleton has a similar proportion of final-year first-generation respondents, but less first-year first generation respondents (first-year respondents: 34% vs 38% for the rest of Ontario)².

Respondents were asked to “choose the categories that best described your ethnic or cultural background”. **Table 2** shows the data. Compared to the rest of the Ontario consortium, on

² There are many definitions of first generation. Using the definition of neither parent having any post-secondary 14% of Carleton respondents are first generation. The difference between definitions includes roughly 4% who attended but never completed university, and the remaining difference (17%) had at least some college or CEGEP.

average, Carleton respondents were less likely to self-identify as Chinese, South Asian, and more likely as Arab.

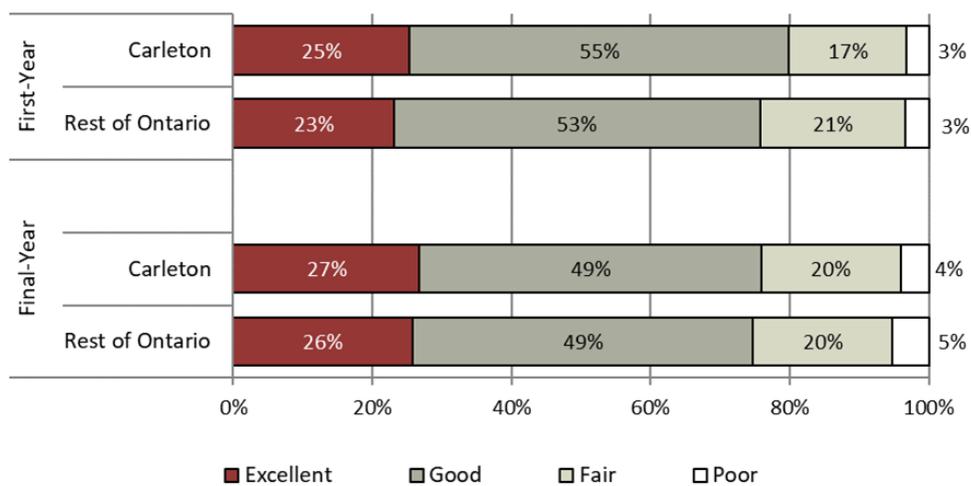
	First-Year	Final-Year	Total
Arab (Saudi, Egyptian, etc.)	9%	7%	8%
Black	8%	6%	7%
Chinese	6%	8%	7%
Indigenous	3%	3%	3%
Latin American	4%	3%	3%
South Asian (East Indian, Pakistani, Sri Lankan, etc.)	10%	8%	9%
White	61%	68%	64%
Other	11%	10%	10%

Note: 'Other' includes Filipino, Southeast Asian (Cambodian, Indonesian, Laotian, Vietnamese, etc.), West Asian (Afghan, Iranian, etc.), Japanese, Korean, and Other. Respondents can choose more than one category.

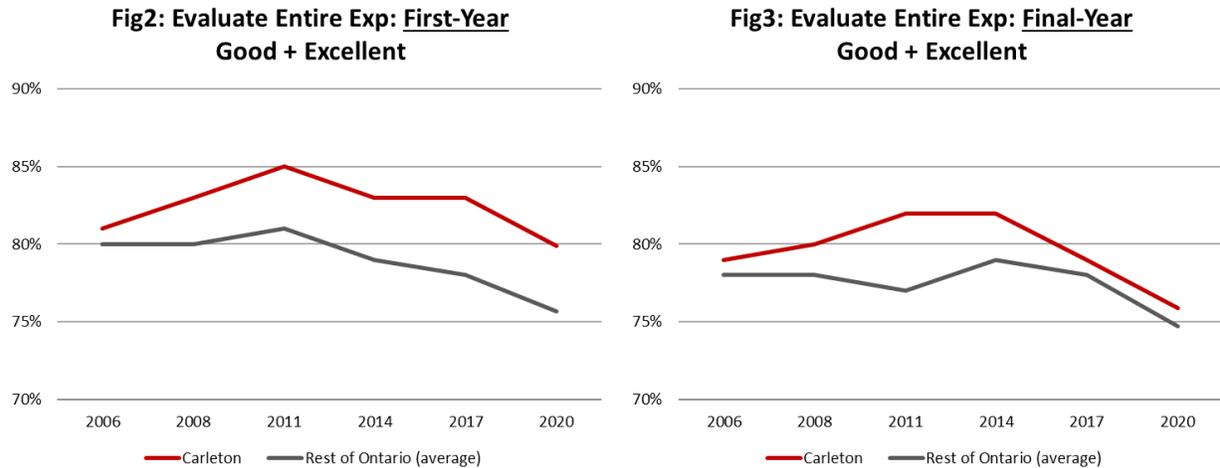
Overall Experience

Carleton respondents continue the long-standing trend of reporting satisfaction levels at or above the provincial average. In 2020, while both first and final-year respondents reported higher overall satisfaction levels compared to their provincial counterparts, only the difference in first year is statistically significant (**Figure 1**).

Figure 1: How would you evaluate your entire educational experience at this institution?

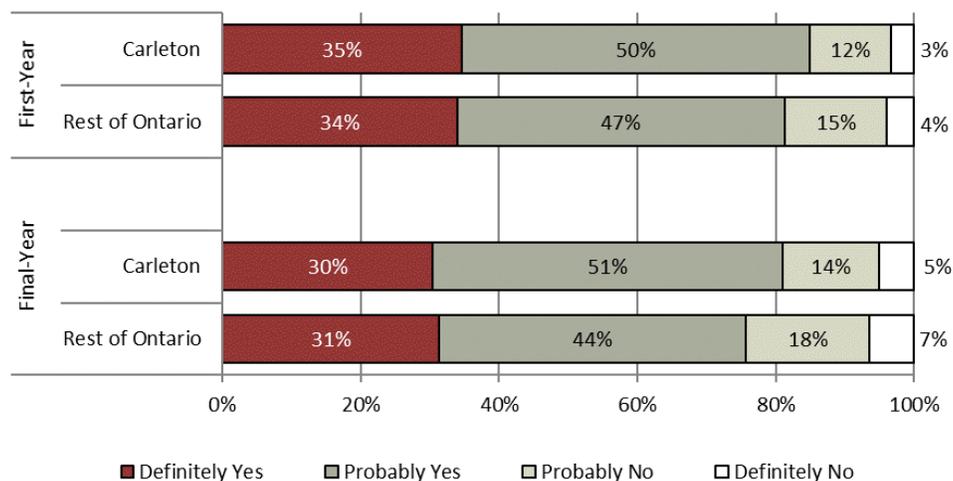


There is a downward trend in the overall satisfaction levels for both Carleton and the provincial average, and while the differences are not statistically significant for Carleton between 2017 and 2020, the trend for final-year respondents between 2014 and 2020 is a statistically significant decline (Figures 2 and 3).



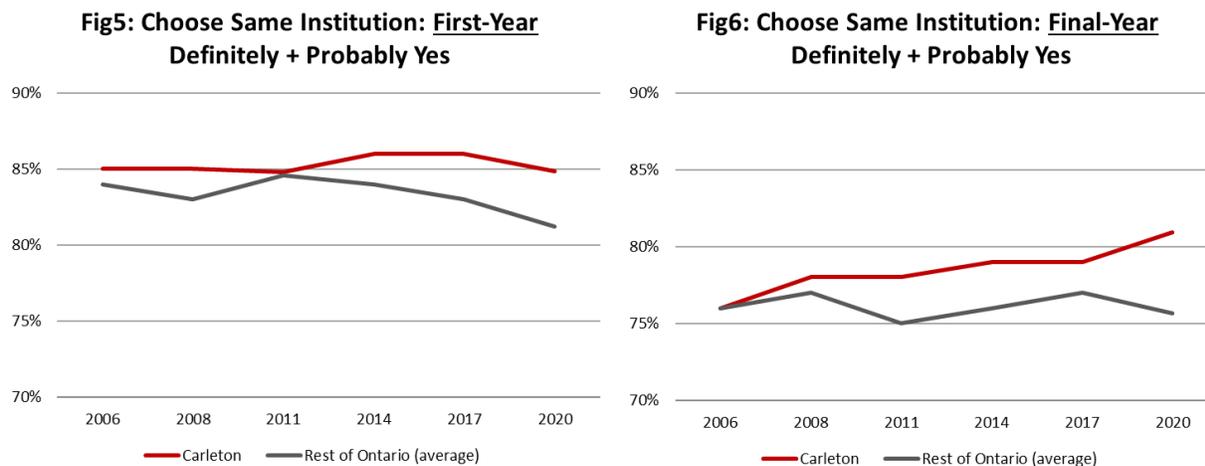
Both first and final-year Carleton respondents reported being statistically significantly more likely than the average of their provincial counterparts to choose their institution again if they were to start over (Figures 4).

Figure 4: If you could start over again, would you choose the same institution?



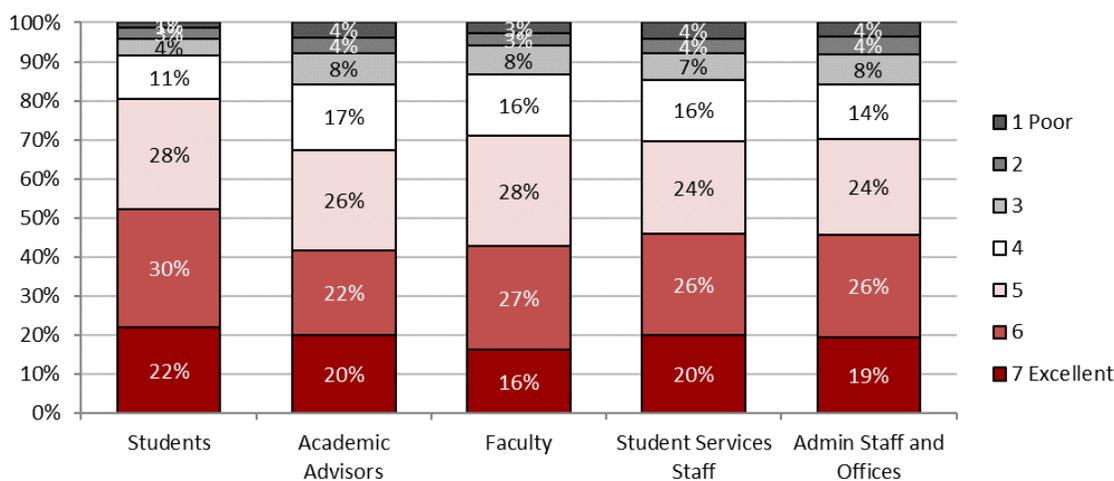
Despite the downward trend in satisfaction, respondents answer similarly over time that they would choose their institution again, if they were to start over. There is even an uptick in 2020 for final year

students, an opposite trend to satisfaction, although that increase is not statistically significant (Figures 5 and 6).



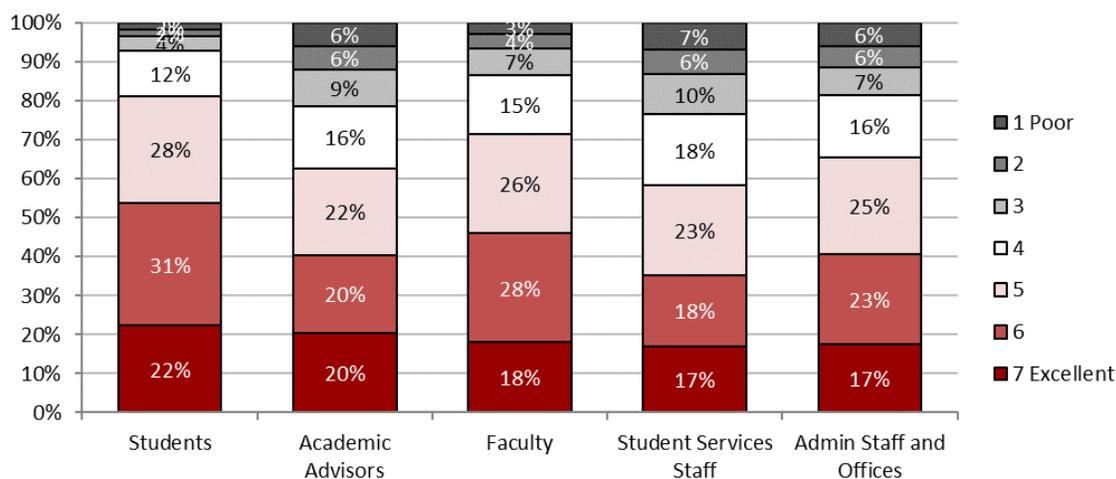
There were five questions on the survey which asked about the quality of the interactions that the respondents had with others on campus³. Figures 7 and 8 below summarize the 2020 results for first-year and final-year respondents at Carleton, respectively, for each of the five relationship types (excluding ‘not applicable’).

Figure 7: First-Year Quality of Interactions With...



³ In the survey, the possible answers to these questions were on a seven-point scale ranging from 1 to 7, with only the low and high values labelled as 1=Poor, and 7=Excellent (plus an option of not applicable). Student services staff in this question was explained as ‘career services, student activities, housing, etc...’. Administrative staff and offices was explained as ‘registrar, financial aid, etc...’.

Figure 8: Final-Year Quality of Interactions With...



Compared to those at other Ontario institutions, on average, both first and final-year respondents at Carleton reported better interactions with 3 groups: academic advisors, faculty, and administrative staff/offices. In addition, first-year respondents reported better interactions with student services staff.

Compared to 2017, Carleton’s first-year respondents gave higher ratings in 2020 to the quality of interactions with all five groups, while final-year respondents gave higher rating to the quality of interactions with administrative staff and offices.

NSSE Engagement Indicators

As a way of summarizing the data and establishing indicators, NSSE clusters survey items to create 10 indicators. This allows for comparisons across a number of themes. Results of the statistically significant differences⁴ between Carleton and the Ontario Consortium are presented in **Table 3** below.

⁴ All statistical significant differences between Carleton and Ontario had an effect size of less than .3, which essentially means they are small differences in practical terms.

Table 3: NSSE Engagement Indicators		
	First-Year	Final-Year
Academic Challenge		
1. Higher-Order Learning	--	--
2. Reflective & Integrative Learning	--	Higher
3. Learning Strategies	Lower	Lower
4. Quantitative Reasoning	Lower	--
Learning with Peers		
5. Collaborative Learning	Lower	Lower
6. Discussions with Diverse Others	Higher	--
Experiences with Faculty		
7. Student Faculty Interaction	Lower	--
8. Effective Teaching Practices	--	Higher
Campus Environment		
9. Quality of Interactions	Higher	Higher
10. Supportive Environment	Higher	--

Legend

-- : No statistical difference from Ontario Consortium

Higher: Carleton's indicator score is higher than Ontario

Lower: Carleton's indicator score is lower than Ontario

A breakout of the statistically significantly different indicators is presented below in an effort to understand the drivers of the differences noted in **Table 3**.

Breakout of Differences Noted in Table 3 (NSSE Engagement Indicators)

Reflective & Integrative Learning (Final-Year). Out of seven items, final-year Carleton respondents were more likely than the Ontario average to report having done two items: Combined ideas from different courses when completing assignments; and Connected ideas from your courses to your prior experiences and knowledge.

Learning Strategies (First-Year and Final-Year). Out of three items, both first-year and final-year Carleton respondents were less likely than the Ontario average to have done one item: Reviewed your notes after class. Additionally, first-year Carleton respondents were less likely to have done both the other two items: Identified key information from reading assignments; and Summarized what you learned in class or from course materials.

Quantitative Reasoning (First-Year). Out of three items, first-year Carleton respondents were less likely than the Ontario average to have done two items: Used numerical information to examine

a real-world problem or issue (unemployment, climate change, public health, etc.); and Evaluated what others have concluded from numerical information.

Collaborative Learning (First-Year and Final-year). Out of four items, both first-year and final-year Carleton respondents were less likely than the Ontario average to have done two items: Asked another student to help you understand course material, and Worked with other students on course projects or assignments.

Discussions with Diverse Others (First-Year). Out of four items, first-year Carleton respondents were more likely than the Ontario average to have had discussion with people from three groups: People of a race or ethnicity other than your own; People from an economic background other than your own; and People with political views other than your own.

Student Faculty Interaction (First-Year). Out of four items, first-year Carleton respondents were less likely than the Ontario average to have done all of them: Talked about career plans with a faculty member; Worked with a faculty member on activities other than coursework (committees, student groups, etc.); Discussed course topics, ideas, or concepts with a faculty member outside of class; and Discussed your academic performance with a faculty member.

Effective Teaching Practices (Final-Year). Out of five items, final-year Carleton respondents were more likely than the Ontario average to report that their instructors have done one item: Provided prompt and detailed feedback on tests or completed assignments.

Quality of Interactions (First-Year and Final-Year). As discussed in the previous section, out of five categories of interactions, both first-year and final-year Carleton respondents rated three types of relationships as better than the Ontario average: Academic advisors, Faculty, and Other administrative staff and offices (registrar, financial aid, etc.). Additionally, first-year Carleton respondents rated the relationships with Student services staff (career services, student activities, housing, etc.) better.

Supportive Environment (First-Year). Out of eight items, first-year Carleton respondents reported that their institution emphasized five items more than the Ontario average: Providing support to help students succeed academically; Using learning support services (tutoring services, writing center, etc.); Providing support for your overall well-being (recreation, health care,

counseling, etc.); Attending campus activities and events (performing arts, athletic events, etc.); and Attending events that address important social, economic, or political issues.

Comparing 2020’s NSSE engagement Indicators to 2017’s shows mixed result.

First-Year: 4 out of 10 indicators were different. All but one were higher in 2020.

	2017	2020
Reflective & Integrative Learning	32.99	33.79 (+)
Collaborative Learning	31.73	33.13 (+)
Effective Teaching Practices	35.80	34.67 (-)
Quality of Interactions	37.98	41.29 (+)

Note: (+) and (-) denote statistically significant difference over time.

Final-Year: 3 out of 10 indicators were different. All but one were lower in 2020.

	2017	2020
Effective Teaching Practices	36.68	35.40 (-)
Quality of Interactions	38.87	40.02 (+)
Supportive Environment	28.69	26.40 (-)

Note: (+) and (-) denote statistically significant difference over time.

High-Impact Practices (HIPs)

According to NSSE “High-Impact Practices (HIPs) represent enriching educational experiences that can be life changing. They typically demand considerable time and effort, facilitate learning outside of the classroom, require meaningful interactions with faculty and other students, encourage collaboration with diverse other students, and provide frequent and substantive feedback.”.

There are six survey items that are considered HIPs, three for first-year students, and all six for final-year students. The goal of HIPs, according to NSSE’s best practices, is for all students to have participated in at least two HIPs by the time they have graduated.

Table 4 shows Carleton and Ontario’s rates of participation in the NSSE HIPs. Generally, where there is a difference, Carleton students are less likely to participate in the high-impact practice compared to the Ontario consortium average.

Table 4: High-Impact Practices				
	First Year		Final-Year	
	(% Participating)		(% Participating)	
	Carleton	Ontario	Carleton	Ontario
Learning Community	7%	8%	13%	17% (+)
Service Learning	39%	45% (+)	39%	49% (+)
Research with Faculty	2%	3% (+)	26%	22% (-)
Internship or Field Experience			43%	48% (+)
Study Abroad			7%	10% (+)
Culminating Senior Experience			45%	34% (-)
Participated in at least one	43%	49% (+)	80%	81%
Participated in two or more	-	-	52%	53%

Notes:
 % participated is % who responded “Done or in progress”, except for service learning (% reported at least some).
 (+) and (-) denote statistically significant difference between Carleton and the rest of Ontario Consortium.

Since final-year at Carleton is made up of 3rd year students in three year programs, and 4th year students in four year programs, it’s helpful to see how ‘final-year’ is broken down by 3, 4 year programs. Students in 3 year programs are more similar to first-year students than they are to students in 4 year programs, in terms of their participation rates in HIPs.

Table 5: High-Impact Practices – Carleton 3, 4 year programs		
	Final-Year	Final-Year
	(3 year programs)	(4 year programs)
Learning Community	8%	13%
Service Learning	42%	38%
Research with Faculty	6%	29%
Internship or Field Experience	13%	47%
Study Abroad	2%	8%
Culminating Senior Experience	6%	50%
Participated in at least one	51%	84%
Participated in two or more	17%	57%

Comparing Carleton’s 2020 results to the 2017 results shows that the rate of participating in HIPs generally increased between the two survey years. This is especially the case for final-year students in terms of the proportion that participated in at least one HIP (from 76% in 2017 to 80% in 2020).

Table 6: High-Impact Practices – Carleton over time

	First Year		Final-Year	
	(% Participating)		(% Participating)	
	2017	2020	2017	2020
Learning Community	6%	7%	16%	13% (-)
Service Learning	38%	39%	36%	39%
Research with Faculty	2%	2%	26%	26%
Internship or Field Experience			38%	43% (+)
Study Abroad			6%	7%
Culminating Senior Experience			39%	45% (+)
Participated in at least one	41%	43%	76%	80% (+)
Participated in two or more	-	-	48%	52%

Note: (+) and (-) denote statistically significant difference over time.

Contributions of University Experience to Knowledge, Skills, and Personal Development

Respondents were asked “How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?” with respondents being able to select Very little, Some, Quite a bit, or Very Much.

A focus on final-year respondents is presented in **Table 7**.

Table 7: Perceived Gains - Final Year Carleton Respondents

	Very little	Some	Quite a bit	Very much
Thinking critically and analytically	2%	14%	36%	48%
Writing clearly and effectively	5%	23%	40%	33%
Working effectively with others	10%	29%	39%	22%
Analyzing numerical and statistical information	15%	25%	28%	32%
Speaking clearly and effectively	12%	29%	36%	22%
Understanding people of other backgrounds	15%	29%	33%	23%
Solving complex real-world problems	14%	32%	31%	22%
Developing or clarifying a personal code of values and ethics	21%	28%	33%	18%
Being an informed and active citizen	20%	29%	30%	21%
Acquiring job- or work-related knowledge and skills	18%	32%	31%	19%

Comparing Carleton’s results to the Ontario average highlights a few statistically significant differences.

Statistically Significant Differences: % Quite a Bit or % Very Much		
	Carleton	Ontario
Writing clearly and effectively	72%	70% (-)
Working effectively with others	61%	67% (+)
Developing or clarifying a personal code of values and ethics	51%	55% (+)
Acquiring job- or work-related knowledge and skills	50%	53% (+)

Note: (+) and (-) denote statistically significant difference between Carleton and the rest of Ontario Consortium.

No differences were found between 2020 and 2017 Carleton final-year respondents.

Most Needed Improvement

Participating as a consortium, the Ontario institutions were able to add a set of questions to the standard NSSE survey instrument. The results in this section come from these Ontario consortium questions. The Ontario NSSE respondents were asked to select up to two items that they believed their university most needed to address to improve the student academic/learning experience, both in and out of the classroom (two separate questions).

Starting with the results of most needed improvements inside the classroom, we see in **Table 8** that first-year Carleton respondents were most likely to choose Improving the quality of teaching assistants (33%), Ensuring a better fit between course content, assignments and tests/exams (28%), and Improving the quality of course instruction by professors (27%). Final-year respondents were most likely to choose Increasing the number or variety of course offerings in their major (35%), as well as improving the quality of course instruction by professors (29%). **Table 8** is sorted by first-year priorities.

Table 8: Improving the Student Academic Experience <u>In the Classroom</u> at Carleton (Proportion of Respondents who Selected Each Item⁵)		
University most needs to address ...	First-Year	Final-Year
Improving the quality of teaching assistants	33	19
Ensuring a better fit between course content, assignments and tests/exams	28	21
Improving the quality of course instruction by professors	27	29
Increasing the number or variety of course offerings in your major	22	35
Improving the quality of classrooms or lecture halls	18	17
Reducing class sizes overall	10	8
Increasing the number or variety of course offerings outside your major	10	9
Increasing opportunities to learn more about global issues	10	11
Providing more current/relevant courses and curriculum	9	15
Changing the mix of lectures, seminars, tutorials and labs	7	8
Improving student access to information technology	5	5
Improving the quality of labs	4	4

Compared to their provincial counterparts, both first and final-year respondents at Carleton were more likely to identify Improving the quality of TAs, and less likely to identify Improving the quality of course instruction by professors as the ‘in the classroom’ priorities.

- Carleton first-year respondents more likely to identify Improving the quality of teaching assistants (33% vs. 19% for Rest of Ontario, on average)
- Carleton first-year respondents less likely to identify Improving the quality of course instruction by professors (27% vs. 33%)
- Carleton first-year respondents less likely to identify Reducing class sizes overall (10% vs. 13%)
- Carleton first-year respondents less likely to identify Improving the quality of labs (4% vs. 6%)
- Carleton final-year respondents more likely to identify Improving the quality of teaching assistants (19% vs. 13%)
- Carleton final-year respondents less likely to identify Improving the quality of course instruction by professors (29% vs. 33%)

Table 9 shows the results of a similarly styled question that sought to find out what students felt was most needed to improve their academic/learning experience outside the classroom. Both first

⁵ Columns will add up to more than 100% since respondents could choose up to two items from the list.

and final-year Carleton respondents selected Improving the quality/availability of study spaces most often (40% first-year and 44% final-year). Final-year respondents were also more likely to choose Expanding and/or improving the quality of personal support services (34%), and Providing students with more opportunities to undertake research with faculty (33%).

Table 9: Improving the Student Academic Experience <u>Outside the Classroom</u> at Carleton (Proportion of Respondents who Selected Each Item⁶)		
University most needs to address ...	First-Year	Final-Year
Improving the quality/availability of study spaces	40	44
Expanding and/or improving the quality of personal support services (e.g., counselling)	25	34
Working to provide a better social environment for students	24	16
Increasing contact with professors outside of class (e.g., office hours)	23	15
Expanding and/or improving the quality of academic support services (e.g., study skills, library skills, writing/math skills, academic advising, career advising)	23	21
Providing students with more opportunities to undertake research with faculty	23	33
Increasing opportunities for international experiences (e.g., exchanges, study abroad)	12	10
Improving the library collection	6	3
Improving library services (e.g., circulation, staff availability, internet/computer availability, etc.)	5	5

Differences between Carleton and the rest of Ontario are noted below.

- Carleton first-year respondents less likely to identify Increasing contact with professors outside of class (23% vs. 27% for rest of Ontario)
- Carleton final-year respondents more likely to identify Providing students with more opportunities to undertake research with faculty (33% vs. 29%)
- Carleton final-year respondents more likely to Improving the quality/availability of study spaces (44% vs. 40%)
- Carleton final-year respondents less likely to identify Working to provide a better social environment for students (16% vs. 21%)

Results on most needed improvements were not compared over time due to changes in the structure of these questions.

⁶ Columns will add up to more than 100% since respondents could choose up to two items from the list.

Obstacles to Academic Progress

Another Ontario consortium question focused on obstacles to academic progress. Given a list of potential factors which may be considered an obstacle to a student’s academic progress, respondents were asked to indicate the degree to which each factor is or was an obstacle to their academic progress (respondents chose from: ‘not an obstacle’, ‘a minor obstacle’, or ‘a major obstacle’).

Table 10 shows the breakdown for Carleton, alongside the results of the Rest of the Ontario consortium, on average. Where differences exist, Carleton respondents are less likely to choose the item as major obstacle to academic progress.

Table 10: Obstacles to Academic Progress				
(Proportion of respondents selecting factors as <u>major</u> obstacles)				
Factor:	First-Year		Final-Year	
	Carleton	Ontario	Carleton	Ontario
Financial pressures or work obligations	28	32 (+)	39	39
Your academic performance at university	23	31 (+)	23	27 (+)
Personal or family problems	20	20	26	27
Course availability/scheduling	14	17 (+)	23	27 (+)
Lack of good academic advising	7	12 (+)	13	18 (+)
Difficulties associated with a disability or chronic health condition	7	7	12	10
Difficulties with academic regulations	6	9 (+)	9	10 (+)
Language/cultural barriers	3	5 (+)	3	4 (+)
Primary care giving responsibilities for a dependent	2	3 (+)	2	4 (+)

Note: (+) and (-) denote statistically significant difference between Carleton and the rest of Ontario Consortium.

Compared to the 2017 results, 2020 Carleton’s first-year respondents are less likely to identify the following items as major obstacles to academic progress:

- Financial pressures or work obligations (28% vs. 34% in 2017)
- Your academic performance at university (23% vs. 30%)
- Lack of good academic advising (7% vs. 10%)
- Difficulties with academic regulations (6% vs. 7%)
- Language/cultural barriers (3% vs. 5%)

On the other hand, 2020 Carleton's final-year respondents are more likely to identify Difficulties associated with a disability or chronic health condition (12% vs. 9% in 2017) as a major obstacles to academic progress.

Conclusion

In 2020 Carleton University invited all first-year and final-year students to participate in NSSE. The results chosen for this report were those that are used for external reporting purposes, were of particular interest last time, or both.

As was the case in 2017, the last NSSE survey at Carleton, the participation of 21 Ontario Universities in NSSE in 2020 has meant particularly meaningful comparisons can be made. First-year respondents at Carleton were more satisfied with their entire educational experience at their institution, compared to the rest of the Ontario consortium, on average, whereas final-year students have comparable satisfaction levels.

Other highlights from this summary when comparing Carleton to the rest of Ontario consortium:

- Comparison of 10 engagement indicators resulted in a mixed bag of differences, although in all cases the differences were considered small.
- Carleton respondents were less likely to participate in the high-impact practices (HIPs) where there were differences.
- Carleton respondents reported better interactions with others where there were differences.
- Carleton respondents were more likely to identify Improving the quality of TAs as the most needed improvement in the classroom.
- Carleton respondents were less likely to consider factors to be major obstacles.

A trend worth paying attention to is that both first and final-year overall satisfaction decreased over time (a similar decrease was seen in Ontario), though the difference is not statistically significant between the most recent two survey years.

The large sample size collected in 2020 means that we can perform further analysis beyond this summary, such as determining results for academic Faculties, as well as digging deeper into individual survey items of interest to the Carleton community.

For more information on NSSE, please go to nsse.iub.edu. For more information on Carleton University, and the results of the surveys in which it participates, please go to www.carleton.ca/oirp.