



National Survey of Student Engagement

2020 Results Summary

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Table of contents

National Survey of Student Engagement	1
Table of contents	2
Overview	3
Participation	4
Engagement indicators	7
High-impact practices	9
Topical module: First year experiences and senior transitions	11
Additional results	13
Ontario Tech's Strategic Plan	15
Overall satisfaction	16
NSSE notables	18
Conclusion	19
Appendix A: Ontario Comparator Group	20
Appendix B: Canada Comparator Group	21
Appendix C: Ontario Select Comparator Group	22

Overview

This report will:

- Review the University of Ontario Institute of Technology's (Ontario Tech) results and compare them to the Ontario Consortium, and to previous years (where applicable).
- Identify key findings, highlight successes and areas for concern.
- Note where results align with the university's strategic plan.
- Provide a snapshot of what the university's students are saying.

The National Survey of Student Engagement (NSSE) was developed by the Indiana University Center for Postsecondary Research in the late 1990s and has been used throughout the U.S. since 2000. Many Canadian institutions have adopted it since 2011, including all Ontario publicly funded universities. Ontario institutions participate in the survey every three years as a consortium to demonstrate their commitment to improve accountability and focus on the quality of the learning experience.

NSSE's emphasis on first-year and senior-year student behaviour offers educators a valuable tool to assess the quality of undergraduate education. This instrument allows institutions to measure their success with engaging students in effective educational practices that are empirically linked with:

- learning
- personal development
- satisfaction
- persistence
- graduation

NSSE results help to understand the characteristics of effective environments for teaching and learning, which can focus the institution's attention on improvement opportunities.

Notes on Impact of COVID-19 on Responses & Comparisons

The NSSE survey took place in the early months of 2020, prior to the emergence of the COVID-19 pandemic and the transition to online instruction. An in-depth analysis of NSSE data revealed survey response behavior and results to be relatively unaffected.

Participation

Response rates

In winter 2020, all eligible first-year ($n=1798$) and senior-year ($n=2405$) undergraduate students were invited to participate in the NSSE via email. Senior-year students consisted of students assumed to be in their final year of studies (year 4 or 5) at Ontario Tech, based on total credit hours earned to date. Of those contacted to participate, 782 first-year students (43%) and 979 senior-year students (41%) completed the survey, resulting in an overall response rate of 41.8%.

NSSE response rates declined in 2011 and have slowly improved through the 2014, 2017 and 2020 survey administrations. Although response rates are still below those in 2008, both first- and senior-year response rates have increased since 2014 (Figure 1). In spite of the ongoing pandemic, the survey response rates for 2020 remained comparable to those in 2017. Additionally, response rates are considerably better at Ontario Tech than at other Ontario and Canadian institutions (Figure 2).

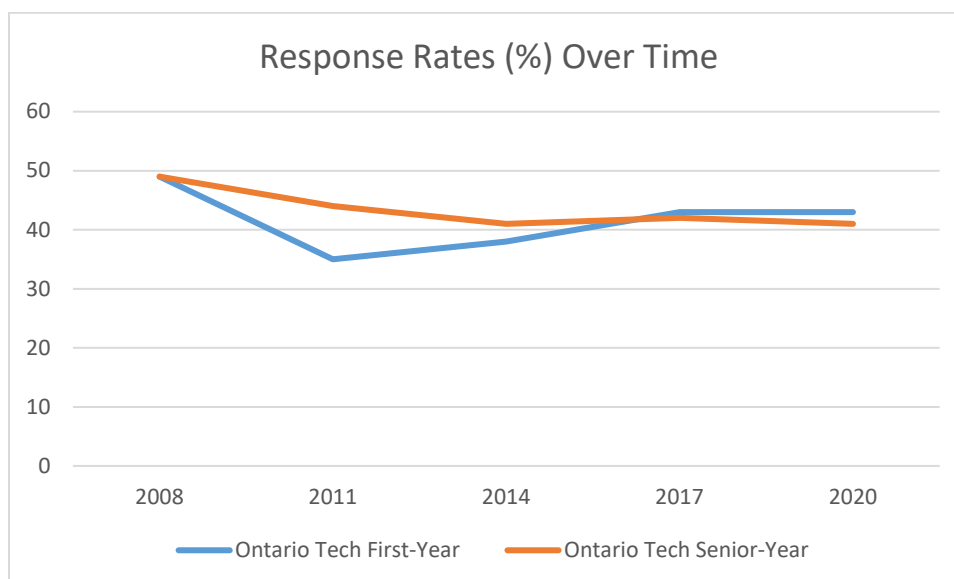


Figure 1: NSSE response rates 2008-2020

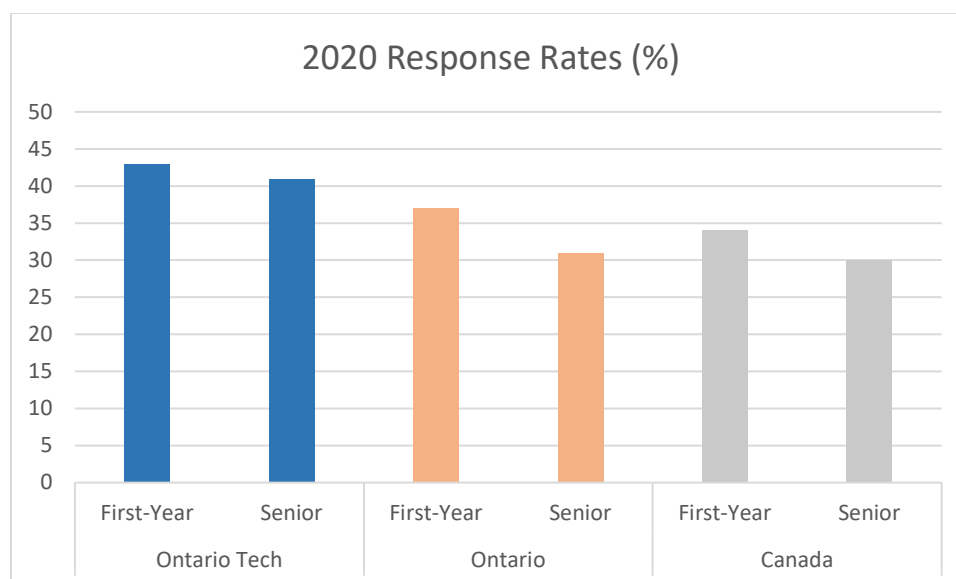


Figure 2: 2020 NSSE response rates for Ontario Tech, Ontario, and Canada

Characteristics

The typical respondent, representative of both first- and senior-year students, was a full-time male, living farther than walking distance from campus.

The university consistently continues to have a larger proportion of full-time students, first-generation students, and males than other institutions in the comparator groups. Also consistent with previous years, Ontario Tech students are less likely to live on campus, which may contribute to longer commute times and lower participation rates in co-curricular activities than students in their Ontario and Canadian peer groups.

The percentage of Ontario Tech students caring for dependents has decreased for first-year students since 2017 and increased for senior-year students, but both are still higher than the Ontario average.

Representativeness	<u>First-year</u>		<u>Senior-year</u>		<u>Ontario</u>	
	Respondent percentage	Population percentage	Respondent percentage	Population percentage	First-year	Senior-year
Female	35	35	45	43	55	56
Full-time	99	98	93	92	93	79
International	7		2		15	8
Living On-campus	32		8		42	2
Age: Under 24	97		67		96	81
First-generation	46		55		37	40
Working for pay on campus	7		18		10	23
Working for pay off campus	42		60		38	51
Commuting (11+ hours/week)	23		24		24	23
Care for dependents	36		44		33	31
Participate in co-curricular activities	47		49		58	59

Table 1: Representativeness of NSSE sample

Comparator groups

The 2020 NSSE core results were compared against the following three groups:

1. Ontario – a group consisting of all publicly funded Ontario universities and their affiliates (n=23; see Appendix A)
2. Canada – a group consisting of Canadian universities who participated in NSSE in 2019 or 2020, excluding the U15 Canadian research universities (n=27; see Appendix B)
3. Ontario Select – a select group of Ontario universities similar in size and make up to Ontario Tech (n=7; see Appendix C)

Ontario Tech also participated as a consortium alongside Ontario universities from Toronto and the surrounding area (n=20) for a subset of questions. Additional questions, such as a topical module, were compared against Canadian institutions that also chose to include these questions.

Engagement indicators

The NSSE Engagement Indicators (EIs) are designed to assess various aspects of student engagement. There are 10 EIs organized into 4 themes and each EI is comprised of a series of related survey questions.

Theme	Engagement Indicator
Academic Challenge	Higher-Order Learning Reflective & Integrative Learning Learning Strategies Quantitative Reasoning
Learning with Peers	Collaborative Learning Discussions with Diverse Others
Experiences with Faculty	Student-Faculty Interaction Effective Teaching Practices
Campus Environment	Quality of Interactions Supportive Environment

Table 2: Engagement indicators and themes

Ontario Tech has consistently outperformed all 3 comparator groups on collaborative learning for both first- and senior-year students, consistent with 2014 and 2017. First-year students reported that they explained course material to other students more than first-year students from comparator institutions and senior-year students reported that they often worked with other students on course projects or assignments more than senior-year students from comparator institutions.

For first-year students, Ontario tech also outperformed all three comparator groups on quality of interactions. Ontario Tech students rated their quality of interactions with academic advisors, student services staff and other administrative staff and offices higher than students in the comparator groups.

Additionally, for senior-year students, Ontario tech outperformed all three comparator groups on quantitative reasoning. Senior-year students reported that they very often reached conclusions based on their own analysis of numerical information in comparison to other institutions.

Consistent with 2017, the EI of reflective and integrative learning was significantly lower for both first-year and senior-year students than all 3 comparator groups. After reviewing the individual questions comprising reflective and integrative learning revealed that the overall EI score is negatively affected by low scores on “connected your learning to societal problems and issues” and “included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments” which aligns from the results from 2017. As Ontario Tech is a primarily STEM-focused university with fewer liberal arts programs compared to other universities in the

comparator groups it is not surprising that Ontario Tech's courses focus less on material related to societal issues and political perspectives than courses at institutions in the comparator groups.

First-Year Students		Your first-year students compared with	Your first-year students compared with	Your first-year students compared with
Theme	Engagement Indicator	Ontario	Canada	Ontario Select
Academic Challenge	Higher-Order Learning	▽	--	--
	Reflective & Integrative Learning	▽	▽	▽
	Learning Strategies	--	--	--
	Quantitative Reasoning	--	△	--
Learning with Peers	Collaborative Learning	△	△	△
	Discussions with Diverse Others	--	△	△
Experiences with Faculty	Student-Faculty Interaction	--	--	--
	Effective Teaching Practices	--	--	--
Campus Environment	Quality of Interactions	△	△	△
	Supportive Environment	△	△	--

Seniors		Your seniors compared with	Your seniors compared with	Your seniors compared with
Theme	Engagement Indicator	Ontario	Canada	Ontario Select
Academic Challenge	Higher-Order Learning	--	--	--
	Reflective & Integrative Learning	▽	▽	▽
	Learning Strategies	--	--	--
	Quantitative Reasoning	△	△	△
Learning with Peers	Collaborative Learning	△	△	△
	Discussions with Diverse Others	--	△	△
Experiences with Faculty	Student-Faculty Interaction	--	--	--
	Effective Teaching Practices	--	--	--
Campus Environment	Quality of Interactions	△	△	--
	Supportive Environment	△	--	--

▲ Ontario Tech's student' average was significantly higher ($p < .05$) with an effect size at least .3 in magnitude.
 △ Ontario Tech's student' average was significantly higher ($p < .05$) with an effect size less than .3 in magnitude.
 -- No significant difference.
 ▽ Ontario Tech's student' average was significantly lower ($p < .05$) with an effect size less than .3 in magnitude.
 ▼ Ontario Tech's student' average was significantly lower ($p < .05$) with an effect size at least .3 in magnitude.

(Ctrl) ▾

Figure 3: NSSE engagement indicator results

Quantitative reasoning scores were highest for students in engineering programs and lowest for students in social science and humanities and education programs. Scores on reflective and integrative learning were highest for students in social science and humanities programs.

High-impact practices

NSSE defines High Impact Practices (HIPs) as enriching educational opportunities for undergraduate students that have a demonstrated positive impact on student success and retention. HIPs are experiences that involve learning outside of the classroom, collaborating with diverse others, and sharing meaningful interactions with faculty and other students. These experiences typically require considerable time and effort from the student and in return, students are provided with ongoing, constructive feedback. As part of the NSSE, first- and senior-year students were asked about their previous and intended participation in each of 6 HIPs, outlined in table 3 below.

High Impact Practice (HIP)	Description
Service-Learning	Courses that included a community-based project
Learning Community	Formal program where groups of students take two or more classes together
Research with Faculty	Work with a faculty member on a research project
Internship or Field Experience	Internship, co-op, field experience, student teaching, or clinical placement
Study Abroad	
Culminating Senior Year Experience	Capstone course, senior project or thesis, comprehensive exam, portfolio, etc.

Table 3: Description of High Impact Practices (HIPs)

Forty-seven percent of first-year students had already participated in at least one HIP, comparable to students at other Ontario and Canadian institutions (see figure 4). Fewer first-year students at Ontario Tech had participated in 2 or more HIPs than students at comparator institutions, consistent with 2017. First-year participation in HIPs has stayed consistent since 2017.

Eighty-two percent of senior-year students participated in at least 1 HIP, which is slightly higher than senior-year students at comparator institutions. Additionally, 52% of senior-year students participated in 2 or more HIPs, which is also slightly higher than students at comparator institutions. Senior-year participation in HIPs has declined from 2017 which highlights a need to emphasize participation in HIPs for both first-year and senior-year students.

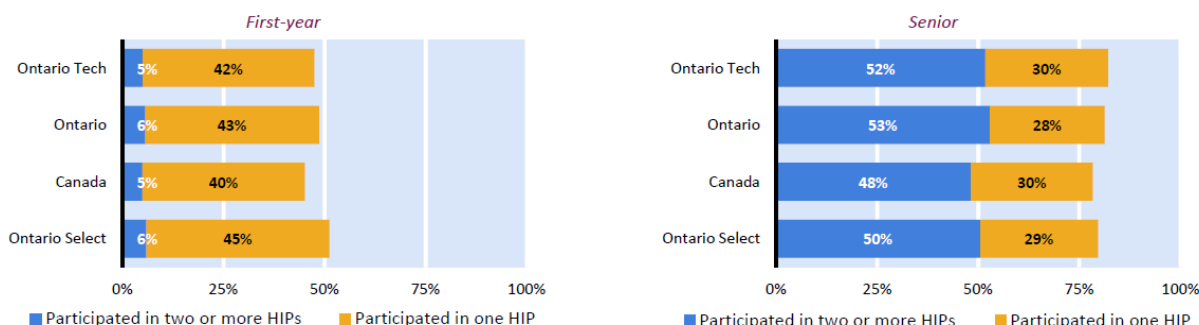


Figure 4: First- and senior-year student participation in High Impact Practices (HIPs)

Consistently since 2017 there has been a higher percentage of senior-year Ontario Tech students participated in a culminating senior-year experience than students at comparator institutions. By contrast, significantly fewer senior-year Ontario Tech students participated in a study abroad opportunity than students at comparator institutions (see figure 5).

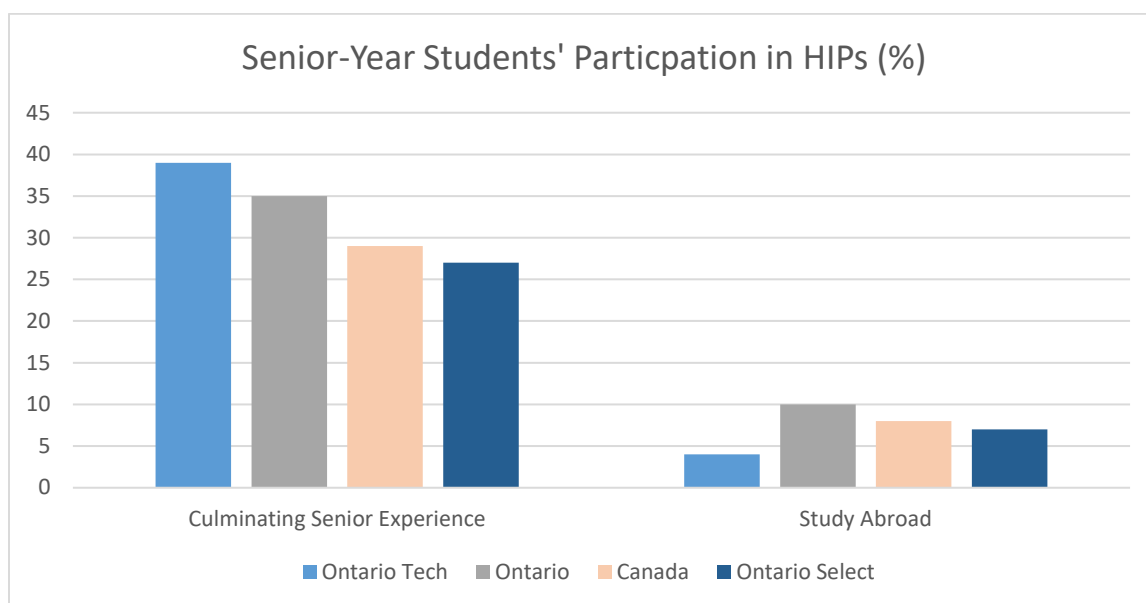


Figure 5: Senior-year student participation in culminating senior-year experience and study abroad

Both first-year and senior-year student research with faculty was highest for students majoring in physical sciences, math, computer science. Internship participation was highest for students in engineering and health sciences programs.

Topical module: First year experiences and senior transitions

As part of the NSSE, institutions are able to participate in a topical module, appending a series of additional targeted questions to the survey. Consistent with 2017, Ontario Tech chose to include questions about first-year experiences and senior-year transitions; The first-year items focus on academic perseverance, help-seeking behaviors, and institutional commitment, while the senior items explore post-graduation plans, links between the academic major and future plans, and confidence with skills developed during university. Results were compared to an aggregate score for all Canadian universities (excluding Ontario Tech) that selected to include this module in their survey deployment (n=29).

First-year experiences

Sixty-four percent of first-year students said it was very important to them that they graduate from Ontario Tech, whereas only 56% of first-year students from other institutions felt it was very important that they graduate from their institution (see figure 6). First-year students were also slightly less likely to have seriously considered leaving the institution than their Canadian peers at other institutions. Those who did consider leaving did so because they found that there were not enough opportunities to socialize and have fun (32%) and for personal reasons (31%).

First-year students at Ontario Tech were slightly more likely to be proactive in seeking help with coursework than their Canadian peers, consistent with 2017. Specifically, Ontario Tech first-year students were more likely than students at other Canadian institutions to seek help from academic advisors, learning support services (tutoring, writing center, success coaching, etc.), friends or other students, and from other persons or offices (see figure 6).

When asked what they would not change about the institution, first-year students overwhelmingly mentioned that they preferred the small class sizes as something that should not change at Ontario Tech as well as the available support services and student engagement activities. Similarly to 2017, when asked for one thing they would like to see changed at the university, first-year students mentioned they would like to see more student and study space.

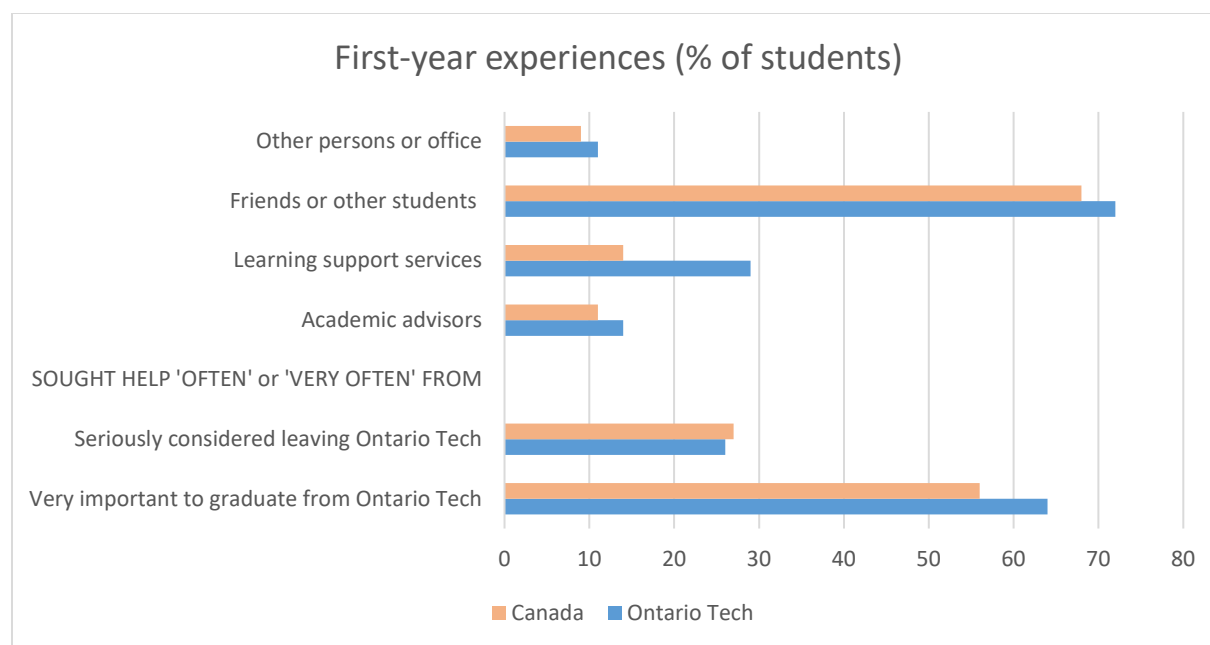


Figure 6: First-year experiences

Senior transitions

Senior-year students at Ontario Tech were more likely to intend to work in a field related to their major (85%) than students at other Canadian institutions (79%). This is likely due to Ontario Tech's unique and specific program offerings, many of which are geared toward specific career paths (such as nursing or engineering) rather than general fields of study.

Consistent with 2017, senior-year Ontario Tech students reported more confidence in their abilities than their Canadian peers. Specifically, senior-year students were more confident in their skills and abilities related to creative thinking and problem solving, research skills, technological skills, financial and business management skills, entrepreneurial skills, leadership skills and networking and relationship building (see figure 7).

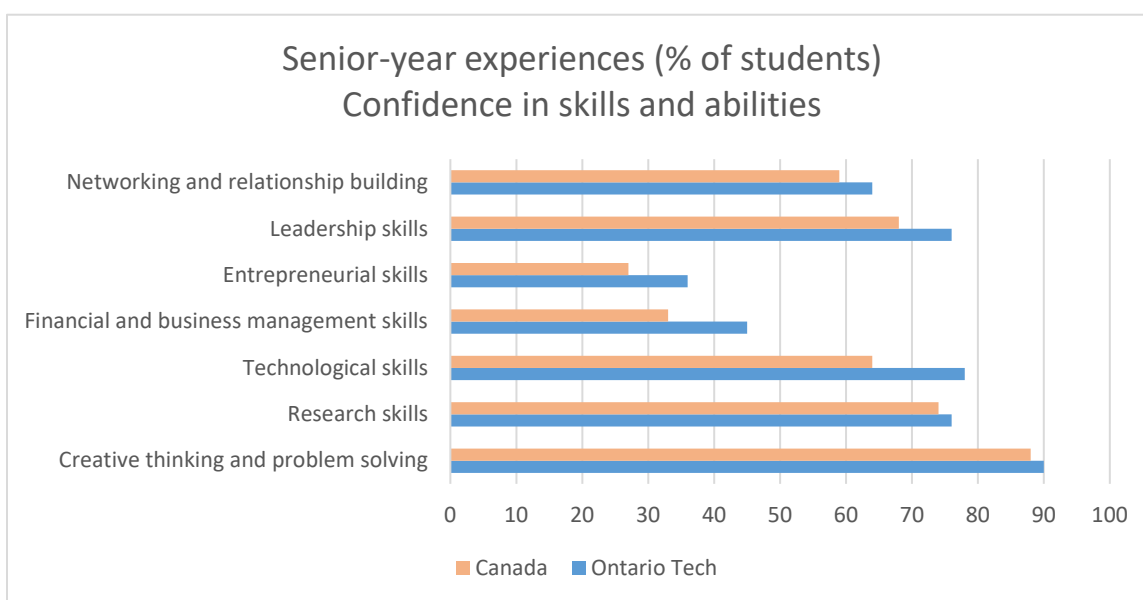


Figure 7: Senior-year students' confidence in abilities

Additional results

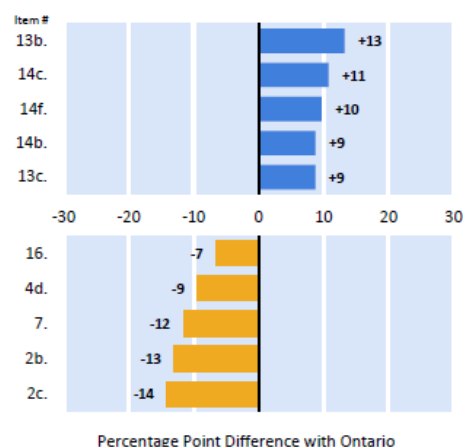
A snapshot of Ontario Tech's highest and lowest performing areas relative to Ontario showed that Ontario Tech consistently scored higher than other Ontario universities on quality of interactions with academic advisors for first-year students and institution emphasis on providing support for student's overall well-being for senior-year students. However, Ontario Tech consistently scored lower than other Ontario universities on "included diverse perspectives in course discussions" and items related to societal issues and social involvement similar to 2017 (see figure 8).

First-year**Highest Performing Relative to Ontario**

- Quality of interactions with academic advisors^d (QI)
- Institution emphasis on using learning support services (...) ^c (SE)
- Institution emphasis on providing support for your overall well-being... ^c (SE)
- Institution emphasis on providing support to help students succeed academically^c (SE)
- Quality of interactions with faculty^d (QI)

Lowest Performing Relative to Ontario

- Spent more than 10 hours per week on assigned reading^f
- Evaluating a point of view, decision, or information source^c (HO)
- Assigned more than 50 pages of writing^g
- Connected your learning to societal problems or issues^b (RI)
- Included diverse perspectives (...) in course discussions or assignments^b (RI)

**Senior****Highest Performing Relative to Ontario**

- Institution emphasis on providing support for your overall well-being... ^c (SE)
- Quality of interactions with academic advisors^d (QI)
- Worked with other students on course projects or assignments^b (CL)
- Quality of interactions with student services staff (...) ^d (QI)
- Discussions with... People with political views other than your own^b (DD)

Lowest Performing Relative to Ontario

- Spent more than 10 hours per week on assigned reading^f
- Worked with a faculty member on a research project (HIP)
- Participated in a study abroad program (HIP)
- Connected your learning to societal problems or issues^b (RI)
- Included diverse perspectives (...) in course discussions or assignments^b (RI)

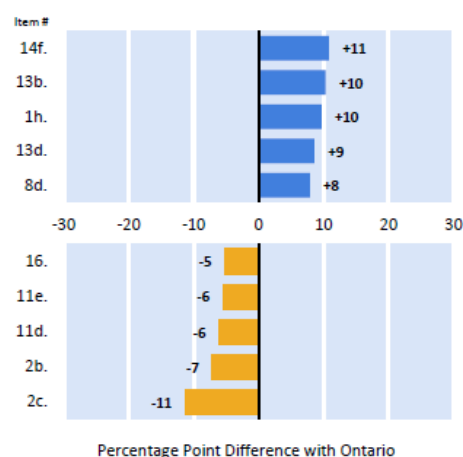


Figure 8: Highest and lowest performing areas for first- and senior-year students relative to Ontario consortium

Ontario Tech's Strategic Plan

Ontario Tech's strategic plan (2017-2022) focuses on three key goals:

1. **Challenge:** We will produce and inspire future leaders who have real-world skillsets.
2. **Innovate:** We will create new approaches, partnerships, and solutions to improve society.
3. **Connect:** We will build lasting relationships to make UOIT a remarkable place for work and study.

The 2020 NSSE results provide insight into how the university is doing at meeting these goals. In particular, senior-year qualitative responses offer insight into how Ontario Tech can improve to better prepare students to become future leaders with real-world skillsets.

When asked what Ontario Tech could have done better to prepare students for future careers or further academic pursuits, senior-year students offered valuable insight into their desire to integrate more practical and hands on experience (such as co-ops, internships, field placements and hands-on demonstrations) into their studies. Many students also mentioned their desire to have more networking and engagement opportunities.

"I believe OTU should work to providing/increasing student engagement while providing students more opportunities to engage with faculty and one another."

"More co-op and hands-on experience to better prepare me for life outside of school (e.g., the workforce, personal and social obstacles, etc.)"

"More networking events with those in graduate schools or those with professional employment."

"Better resources for resume and networking events where employers come to meet and greet students. Or have a mentor program with some of the Professors so that they can get some knowledge of the real world of what they are learning."

"Ontario tech could offer more services to help students achieve the coop/internship opportunities they are looking towards. Also, offer more practical courses that will assist with getting these coop/internship opportunities."

"More 'hands on' opportunities. I know we offer practicums but that is only offered in 4th year and only a few students get that opportunity. I feel like it should be expanded so as students we are guided throughout our undergrad and as we go into second or third year we are more clear about what we want to do, instead of just waiting for 4th year to figure that out.."

Overall satisfaction

When asked how they would evaluate their entire educational experience at Ontario Tech, 74% of first-year students and 76% of senior-year students said it was either “good” or “excellent.” First-year students’ overall satisfaction has declined since 2017, whereas senior-year students’ overall satisfaction has slightly improved. Overall satisfaction is slightly lower at Ontario Tech than at other Ontario universities for first-year students, and higher at Ontario Tech for senior-year students. First-year students at Ontario Tech felt their studies had a stronger emphasis on important factors (such as collaborative learning, quality of interactions and supportive environment) compared to other institutions. When asked what change they would like to see implemented to improve their educational experience at Ontario Tech, first-year students mentioned a need for more student space on campus and a desire for more social events.

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

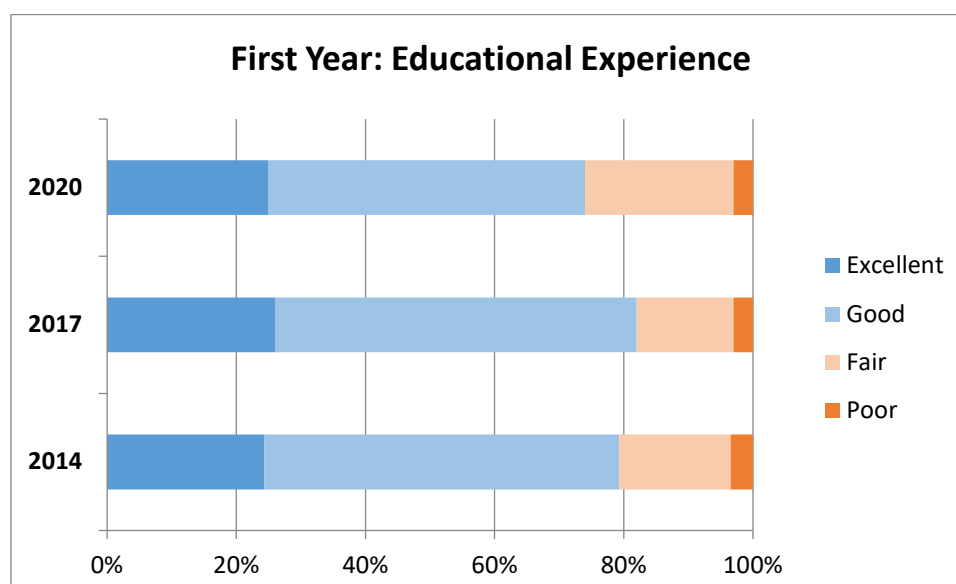


Figure 9: First-year students' rating of educational experience at their institution

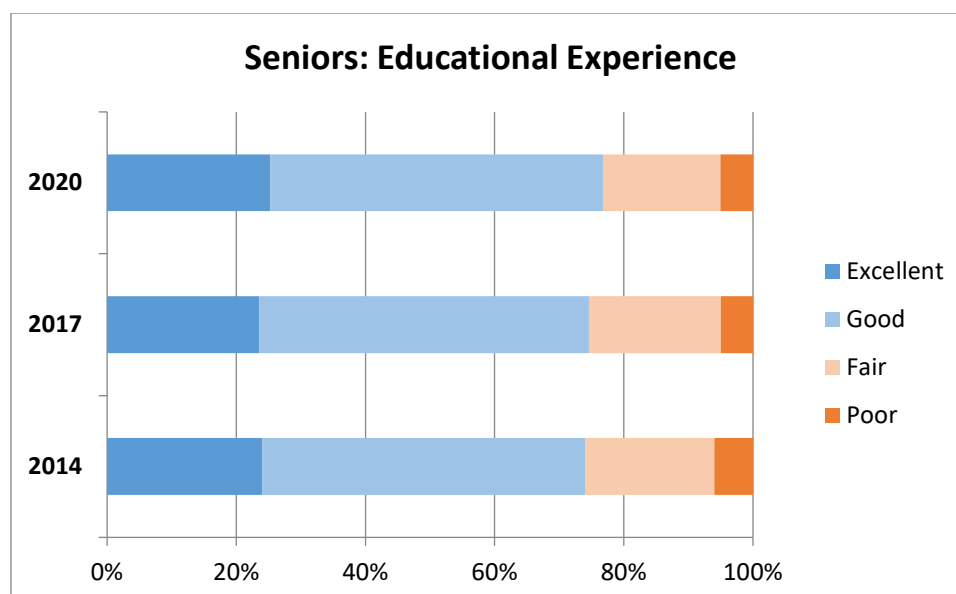


Figure 10: Senior-year students' rating of educational experience at their institution

Students were asked whether or not they would choose Ontario Tech again if they could start over. Eighty percent of first-year students and 74% of senior-year students said they would either “probably” or “definitely” choose Ontario Tech again if they were to start over. For first-year students, the percentage of students decreased slightly from 2017 but is higher than the Ontario average. For senior-year students, the percentage of students who would choose Ontario Tech again has increased in 2020 and although it has increased since 2017, it remains below the Ontario averages.

If you could start over again, would you go to the same institution you are now attending?

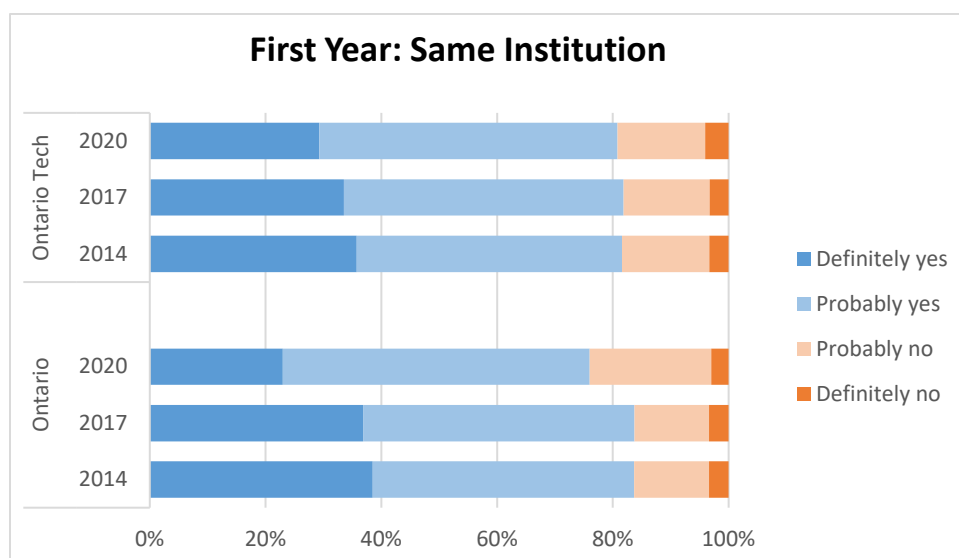


Figure 11: First-year students' perspective on attending the same institution again

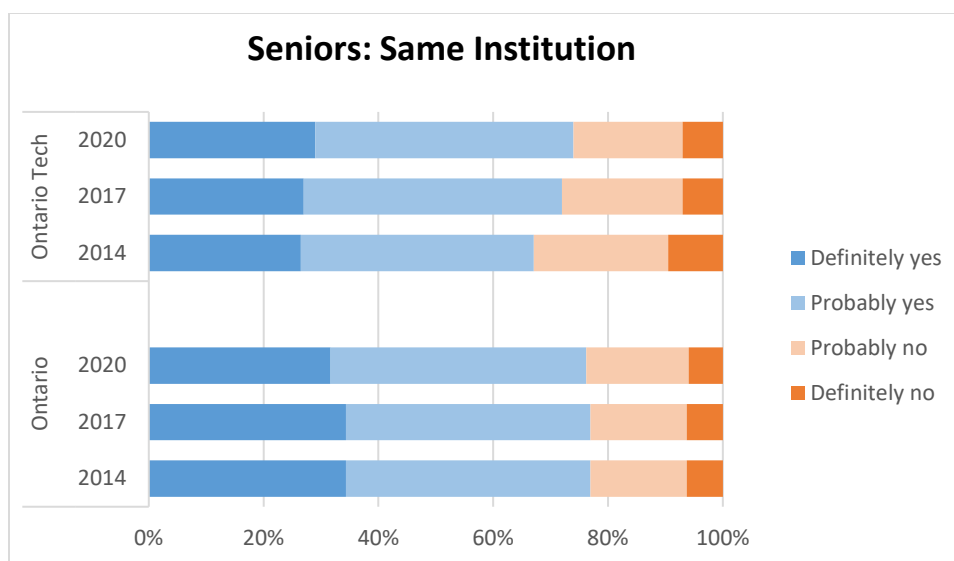


Figure 12: Senior-year students' perspective on attending the same institution again

NSSE notables

The following section highlights key findings from the NSSE results. The number in parentheses is the Ontario Consortium comparable score, unless otherwise noted.

First-year students

- 69 percent (52) of first-year students said **a lack of good academic advising** was not an obstacle to their academic progress
- 29 percent (32) of first-year students said **financial pressures or work obligations** were a major obstacle to their academic progress
- 27 per cent (31) of first-year students said their **academic performance** was a major obstacle to their academic progress
- 48 percent (38) of first-year students said **improving the quality/availability of study spaces** would improve the student academic/learning experience outside the classroom
- 28 percent (25) of first-year students said **Working to provide a better social environment for students** would improve the student academic/learning experience outside the classroom
- 17 percent (14) of first-year students did not experience a sense of community on campus
- 32 percent (45) of first-year students lived in **residence**
- Of the 68 percent of students who did not live in residence, 26 percent (21) commuted to school in a private automobile and 59 percent (64) took public transit

Senior-year students

- 46 percent (39) of senior-year students said **financial pressures or work obligations** were a major obstacle to academic progress
 - This has remained the same since 2017
- 30 percent (27) said **personal or family problems** were a major obstacle to academic progress, slightly higher than in 2017 (2017: 28%)
- 17 percent (13) of senior-year students did not experience a sense of community on campus
- 92 percent (92) of senior-year students did not live in residence
- Of that 92 percent, 50 percent commuted to school in a private automobile (22) and 30 percent took public transit (49)
- 52 percent (40) of senior-year students said **improving the quality/availability of study spaces** would improve the student academic/learning experience outside the classroom

Conclusion

This report summarized and highlighted the key findings of Ontario Tech's 2020 NSSE results. Ontario Tech has outperformed its Ontario comparator group on 3 of the 10 engagement indicators for first-year students and 4 of the 10 engagement indicators for senior-year students.

Ontario Tech students continue to think highly of academic advisors and are likely to use academic support services more often than students from other Ontario and Canadian institutions. Additionally, Ontario Tech students are more confident in their abilities than students at comparator institutions.

Low points for Ontario Tech continue to be the lack of emphasis on societal problems and inclusions of diverse perspectives in courses. Additionally, Ontario Tech students are unhappy with the lack of social events and student space. Students' feel this would improve the student academic/learning experience outside the classroom. Many students feel that Ontario Tech should improve on providing more hands-on opportunities as well as networking and engagement opportunities to help prepare for the workforce.

NSSE continues to provide Ontario Tech an important measure of student engagement and satisfaction, allowing the university to better serve its students. Ontario Tech looks forward to using these results to continue its growth and development.

Appendix A: Ontario Comparator Group

Ontario (N=23)

Algoma University (Sault Ste. Marie, ON)
Brescia University College (London, ON)
Brock University (St. Catharines, ON)
Carleton University (Ottawa, ON)
Huron University College (London, ON)
Lakehead University (Thunder Bay, ON)
Laurentian University/Université Laurentienne (Sudbury, ON)
McMaster University (Hamilton, ON)
Nipissing University (North Bay, ON)
OCAD University (Toronto, ON)
Queen's University (Kingston, ON)
Ryerson University (Toronto, ON)
Trent University (Peterborough, ON)
Université d'Ottawa / University of Ottawa (Ottawa, ON)
Université Saint-Paul / Saint Paul University (Ottawa, ON)
University of Guelph (Guelph, ON)
University of Guelph-Humber (Toronto, ON)
University of Toronto (Toronto, ON)
University of Waterloo (Waterloo, ON)
University of Windsor (Windsor, ON)
Western University (London, ON)
Wilfrid Laurier University (Waterloo, ON)
York University (Toronto, ON)

Appendix B: Canada Comparator Group

Canada (N=27)

Acadia University (Wolfville, NS)*
Brandon University (Brandon, MB)
Brock University (St. Catharines, ON)
Carleton University (Ottawa, ON)
Concordia University (Montreal, QC)
Lakehead University (Thunder Bay, ON)
Laurentian University/Université Laurentienne (Sudbury, ON)
Memorial University of Newfoundland (St. John's, NL)
Mount Saint Vincent University (Halifax, NS)
Nipissing University (North Bay, ON)
Ryerson University (Toronto, ON)
Saint Mary's University (Halifax, NS)
Simon Fraser University (Burnaby, BC)
St. Francis Xavier University (Antigonish, NS)
St. Thomas University (Fredericton, NB)
Trent University (Peterborough, ON)
Université du Québec à Montréal (Montréal, QC)
University of Guelph (Guelph, ON)
University of Lethbridge (Lethbridge, AB)
University of New Brunswick (Fredericton, NB)
University of Northern British Columbia (Prince George, BC)*
University of Prince Edward Island (Charlottetown, PE)
University of Victoria (Victoria, BC)
University of Windsor (Windsor, ON)
University of Winnipeg, The (Winnipeg, MB)
Wilfrid Laurier University (Waterloo, ON)
York University (Toronto, ON)

Appendix C: Ontario Select Comparator Group

Ontario Select (N=7)

Brock University (St. Catharines, ON)
Lakehead University (Thunder Bay, ON)
Laurentian University/Université Laurentienne (Sudbury, ON)
Nipissing University (North Bay, ON)
Trent University (Peterborough, ON)
University of Windsor (Windsor, ON)
Wilfrid Laurier University (Waterloo, ON)