



National Survey of Student Engagement

2014 results summary

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Overview

This report will:

- Summarize the changes to the updated the National Survey of Student Engagement (NSSE).
- Review the University of Ontario Institute of Technology's (UOIT) 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.

To meet the increasing demands for higher education assessment, the instrument was remodelled in 2013 to advance higher education survey research and data use. Although NSSE maintains its focus on diagnostic and actionable information related to effective educational practice, the updated survey introduces new and refined elements, new summary measures and topical modules. These changes provide new ways to analyze institutional results and expand opportunities for action.

Updated NSSE

In comparison to the 2011 NSSE, approximately one quarter of the elements are new, one quarter are unchanged, one quarter changed majorly and the remaining elements having minor changes (*Figure 1*). The most significant change is the reorganization of the previous five Benchmarks of Effective Educational Practice into ten Engagement Indicators grouped into four themes. The other notable difference reclassifies six items

from the former Enriching Educational Experiences benchmark into what is now being reported separately as High-Impact Practices. Each key change expands, modifies, or updates the 'old' benchmarks in order to introduce valuable new content to enrich institutional assessment efforts. The 2014 NSSE will serve as a benchmark moving forward resulting in UOIT's inability to compare its year-over-year results on a number of items.

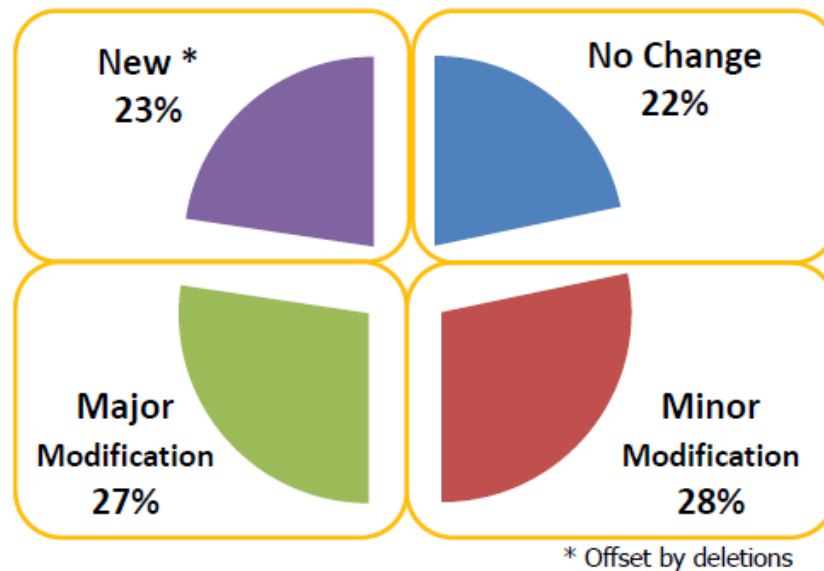


Figure 1 –Changes to NSSE instrument

Participation

Response rates

In winter 2014, all first-year students (2,742) and all senior-year students (1,936) at UOIT were invited to participate in NSSE. Of the survey population, 38 per cent (1,036) of first-year students and 41 per cent (803) of senior-year students responded to the request, resulting in an overall response rate of 39 per cent with a sampling error of +/- 2.5 per cent. The average response rate for Ontario universities was 32 per cent for first-year students and 34 per cent for senior-year students.

NSSE response rates have declined considerably since the survey was first administered at the university in 2008 (see *Table 1*). First-year student respondents have decreased by 11 per cent from 2008, but have increased 3 per cent from the 2011 administration for the survey. Senior-year student respondents have continually decreased, indicated by an 8 per cent reduction in participation from 2008 and a 3 per cent reduction from 2011. Although the university's response rates have declined since

the survey’s first inception, student participation in NSSE still exceeds Ontario’s average.

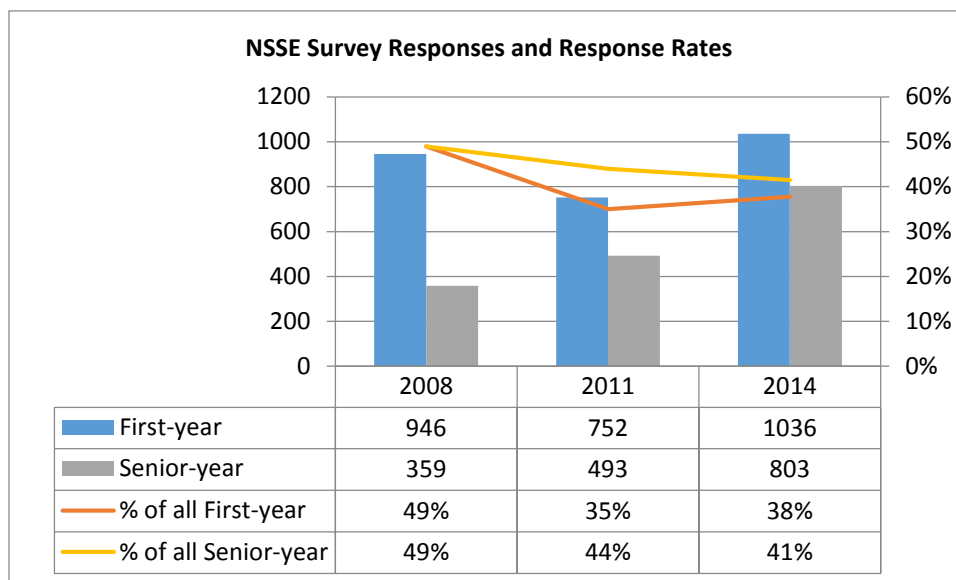


Table 1 - NSSE responses and response rate comparison

Characteristics

A typical UOIT student, representative of both first- and senior-year, is a first-generation, full-time male who lives off-campus and works to support his education. The university’s focus on science, technology, engineering and math (STEM) programs contributes to the unique male to female ratio in relation to the Ontario consortium as a whole; 56 per cent and 46 per cent respectively. A comparison of the university’s respondent characteristics to the university population and to those of their Ontario peers is provided in Table 2.

The university continues to differentiate itself from other Ontario universities as it has a higher proportion of full-time and first-generation students. Also, in contrast to the university’s peer group (see Appendix A), its students are far less likely to live on campus, which may contribute to longer commute times and lower participation rates in co-curricular activities. Additionally, students are 11 to 16 per cent more likely to care for dependents than their Ontario peer group. The percentage of those who work (either on- or off-campus) far exceeds the Ontario average by 34 per cent, which is a significant distinction for the university’s first-year students.

Representativeness	First-year		Senior-year		Ontario	
	Respondent percentage	Population percentage	Respondent percentage	Population percentage	First-year	Senior-year
Female	44	38	47	41	54	57
Full-time	97	95	92	91	93	77
International	6	8	2	2	9	5
On-campus	23		5		43	5
Less than 24	88	89	68	68	94	80
First-generation	57	52	58	38	42	44
Working	53	-	77	-	19	69
Commuting (11 plus hours/week)	25	-	20	-	18	17
Care for dependents	42	-	46	-	31	30
Participate in co-curricular activities	47	-	49	-	57	58

Table 2 - NSSE respondent characteristics

Comparator group

NSSE results are displayed with university's core survey results alongside three comparator groups. The first and most prominent comparison group is Ontario. This group is composed of all 19 publicly funded Ontario universities (see Appendix A), including affiliates (n=22). As a group, Ontario participated as a NSSE Consortium that allowed for the inclusion of additional question sets. Throughout this report, the university will only report on Ontario as a comparator group due the uniqueness of the post-secondary sector in Ontario. The other comparator groups available are:

1. NSSE as a whole.
2. A subset of NSSE U.S. participating institutions that resemble the university by size and type.

Engagement indicators

The original five benchmarks used prior to the 2014 NSSE have transitioned to four themes containing 10 engagement indicators. Each indicator is an aggregate of combined responses to related NSSE questions and offers valuable information about a distinct aspect of student engagement. In response to this change, this report will serve as the benchmark for future NSSE results with only the 2014 results presented.

The NSSE four broad themes and indicators are:

1. **Academic Challenge** – higher-order learning, reflective and integrative learning, learning strategies and quantitative reasoning
2. **Learning with Peers** – collaborative learning and discussions with diverse others
3. **Experiences with Faculty** – student-faculty interaction and effective teaching practices

4. **Campus Environment** – quality of interactions and supportive environment

Based on the engagement indicators, the university outperforms the Ontario comparator group on four indicators for both first-year and senior-year participants, with the remaining six indicators showing no significant difference. The university scored significantly higher in the areas of quantitative reasoning and collaborative learning for both first-year and senior-year students. First-year students reported reviewing and summarizing class notes after class (learning strategies) more often than their peer group at other Ontario institutions. Senior-year students responded above average in the areas of being able to evaluate, apply, and analyze facts, ideas, theories (higher-order learning), as well as having discussions with people from a different race, ethnic or economic background, or from a different religious or political view than their own (discussion with diverse others). See *figure 3*

First-year students

UOIT first-year students compared with

Theme	Engagement indicator	Ontario
Academic Challenge	Higher-Order Learning	--
	Reflective and 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	--

Senior-year students**UOIT
senior-year
students
compared
with**

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

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

Figure 2 - NSSE engagement indicators

High-impact practices

As part of the 2014 NSSE, students were asked about their participation in undergraduate opportunities that NSSE classifies as High-Impact Practices (HIP). Characteristics of a HIP include collaborative learning opportunities with diverse individuals and enabling learning outside of the traditional classroom setting. Students are also required to devote a considerable amount of time and effort towards a HIP. The NSSE included six HIPs:

- Learning community or some other formal program where groups of students take two or more classes together.
- Courses that included a community-based project (service-learning).
- Working with a faculty member on a research project.
- Internship, co-op, field experience, student teaching or clinical placement.

- Studying abroad.
- Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.).

Responses from the university’s NSSE results indicate that overall, 53 per cent of first-year students and 85 per cent of senior-year students participated in at least one HIP. Both of these were higher than the Ontario average (see Figure 4). Areas where student participation was particularly high included service-learning and culminating senior experience. However, senior-year students who participated in either research with faculty or a study abroad program were both considerably lower than the Ontario average. This indicates that a focus on program development and outreach in these areas is necessary to provide students the opportunity to participate in these enriching forms of experiential learning.

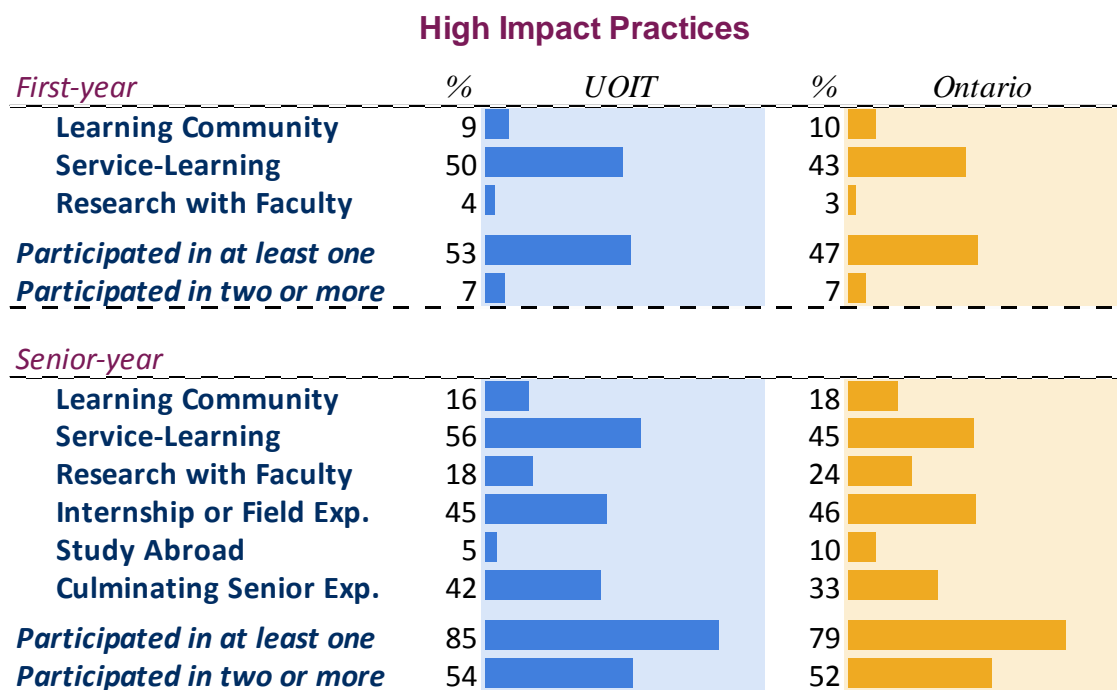


Figure 3 - NSSE high-impact practices

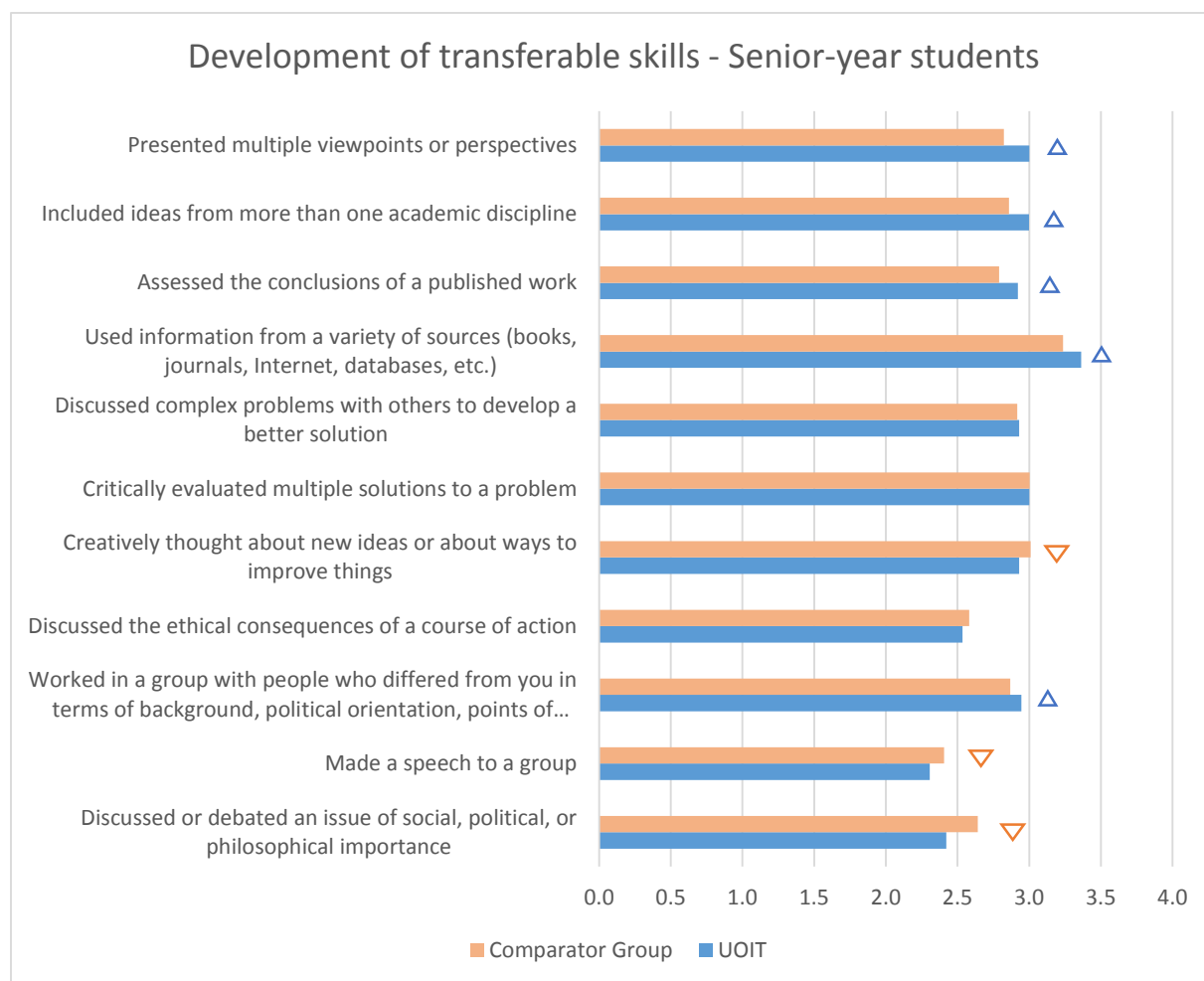
Topical module – development of transferable skills

New to NSSE this year was the option to participate in one of eight topical modules. Each module included short sets of questions on selected current topics in higher education and student engagement. The university participated in the Development of Transferable Skills module, which examined the activities that develop useful and transferable skills for the workplace. The measured skills include:

- Participated in discussions and/or debates.
- Delivered a speech.
- Worked in a group with people different from you.

- Thought of new ideas to improve things.
- Critically evaluated solutions to a problem.
- Used information from a variety of resources.
- Assessed the conclusions of a published work.
- Included ideas from more than one academic discipline.
- Presented multiple viewpoints or perspectives.

Figure 5 shows the comparison of means by transferable skill of the university's senior-year students to the comparator group. The comparator group consists of the 136 NSSE institutions, including seven from Ontario, who participated in this module. The data reveals the university does well, on average, in preparing its graduates with transferable skills for employment. Students are in most need of developing their transferable skills in the areas of making a speech and discussing or debating issues of social, political or philosophical importance.



UOIT students' average was significantly higher ($p < .05$) with an effect size less than .3 in magnitude.



UOIT students' average was significantly lower ($p < .05$) with an effect size less than .3 in magnitude.

Figure 4- NSSE development of transferable skills - senior-year students

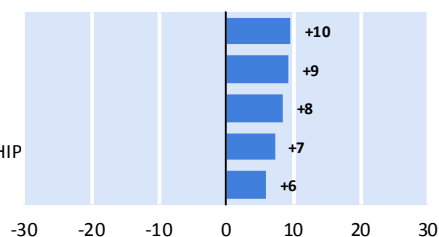
Additional results

NSSE provides a snapshot that displays the five questions on which the university’s first-year and senior-year students scored the highest and the five questions on which they scored the lowest, relative to students in the Ontario comparison group (Figure 6).

First-year

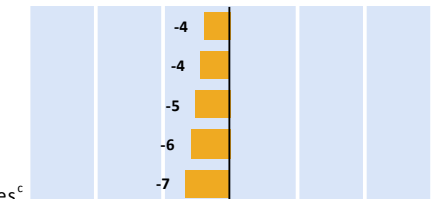
Highest Performing Relative to Ontario

- Reviewed your notes after class^b (LS)
- Reached conclusions based on your own analysis of numerical information (...) ^b (QR)
- Worked with other students on course projects or assignments ^b (CL)
- About how many courses have included a community-based project (service-learning)?^e (HIP)
- Used numerical information to examine a real-world problem or issue (...) ^b (QR)



Lowest Performing Relative to Ontario

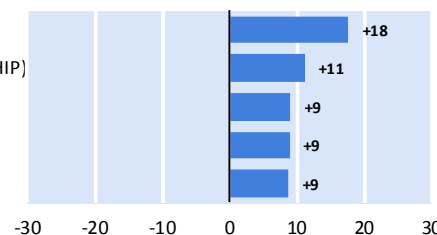
- Included diverse perspectives (...) in course discussions or assignments ^b (RI)
- Quality of interactions with students ^d (QI)
- Spent more than 10 hours per week on assigned reading^f
- Institution emphasis on attending campus activities and events (...) ^c (SE)
- Institution emphasis on attending events that address important social/econ./polit. issues^c



Senior-year

Highest Performing Relative to Ontario

- Worked with other students on course projects or assignments ^b (CL)
- About how many courses have included a community-based project (service-learning)?^e (HIP)
- Assigned more than 50 pages of writing^e
- Completed a culminating senior experience (...) (HIP)
- Applying facts, theories, or methods to practical problems or new situations^c (HO)



Lowest Performing Relative to Ontario

- Quality of interactions with student services staff (...) ^d (QI)
- Included diverse perspectives (...) in course discussions or assignments ^b (RI)
- Institution emphasis on attending events that address important social/econ./polit. issues^c
- Participated in a study abroad program (HIP)
- Worked with a faculty member on a research project (HIP)

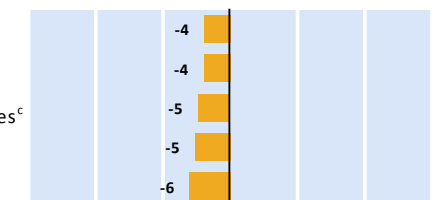


Figure 5 - NSSE’s top five highest and lowest performing results relative to Ontario

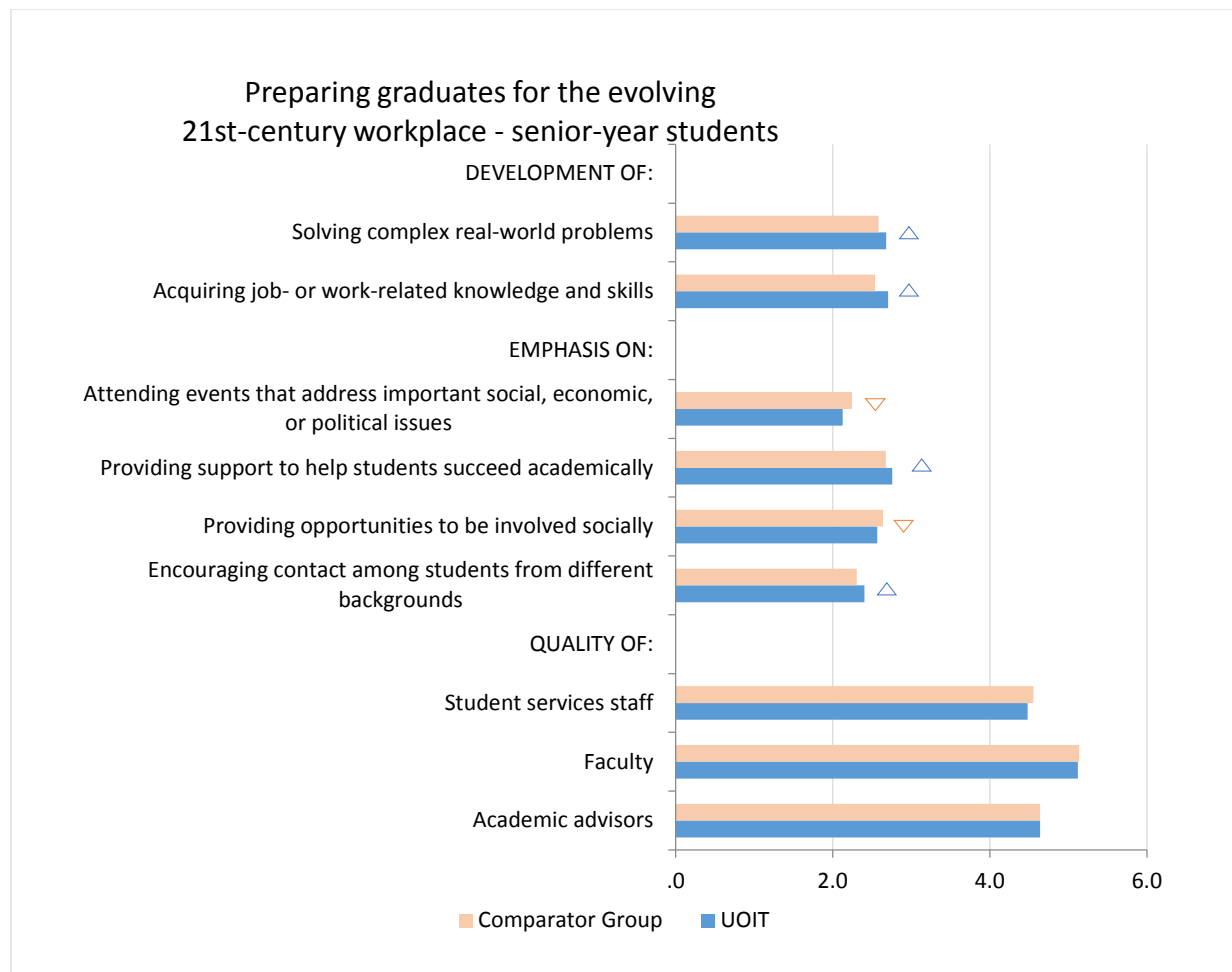
UOIT's Strategic Plan

The UOIT Strategic Plan UOIT (2012-2016) is advised by three major priorities:

1. Prepare our graduates for the evolving 21st-century workplace.
2. Build strength and capacity through research, innovation and partnerships.
3. Be distinguished as a healthy 21st-century workplace.

A number of questions included in the NSSE can be aligned with the priorities in the UOIT Strategic Plan; of particular interest is priority one. The NSSE responses for questions as they pertain to this priority can gauge how the university is doing to attain this goal. Recommended actions within this priority include the university providing opportunities for students to gather, create and learn from one another and to provide a seamless student service experience.

Questions that could be aligned with this major priority are included in Figure 8, with responses indicating that the university's senior-year students fare better than the Ontario comparator group in developing skills to solve complex real-world problems and acquire job- or work-related skills. However, there is remarkably less emphasis on attending events that address important social/political/etc. issues and providing opportunities to be involved socially when compared to the Ontario comparator group. The quality of interactions with faculty, and academic advisors is the same as the Ontario comparator, while interactions with student services staff rank slightly lower than the university's comparator group but not significantly different.





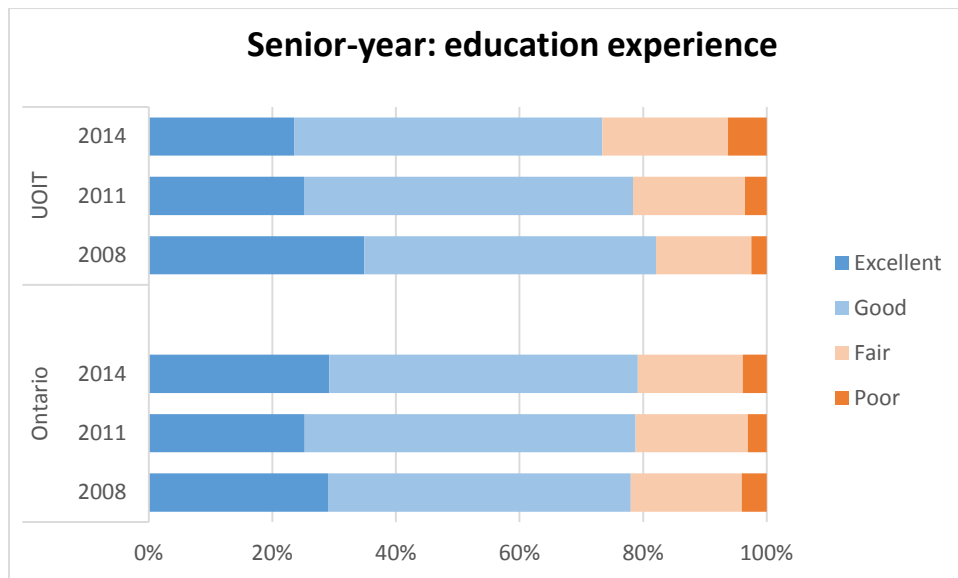
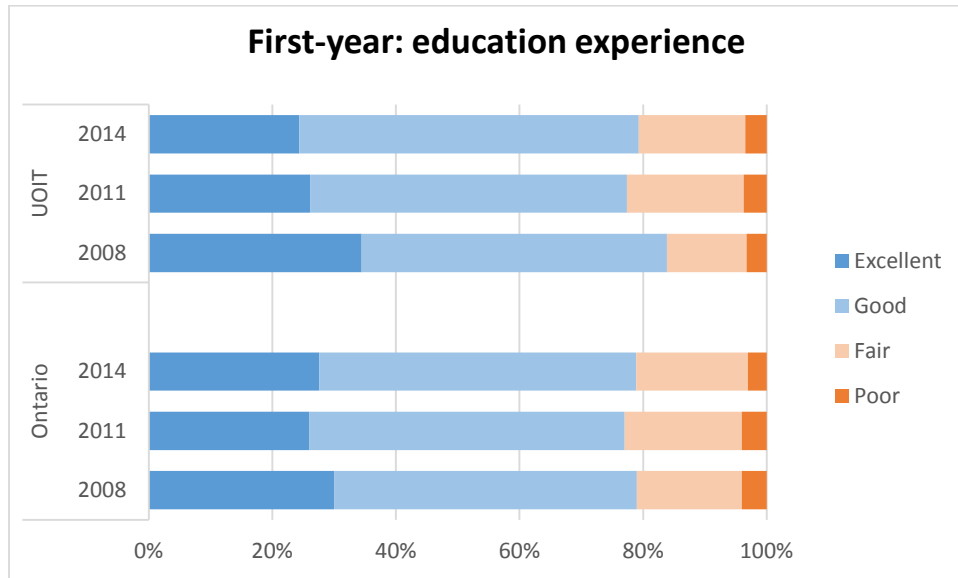
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 **UOIT students' average** was significantly lower ($p < .05$) with an effect size less than .3 in magnitude.

Figure 6 - NSSE results in relation to UOIT's five-year Strategic Plan

Overall satisfaction

Students were asked to rate their overall satisfaction with their entire education experience at UOIT. Although first-year 'excellent' responses have declined over the past three occurrences, the cumulative of 'excellent' and 'good' responses have improved from the 2011 NSSE, which is on par with the Ontario consortium. Senior-year displays a steady decline in both 'excellent' and 'good' responses from the initial 2008 NSSE, tracking lower than the provincial average. (see Figure 7)

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



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

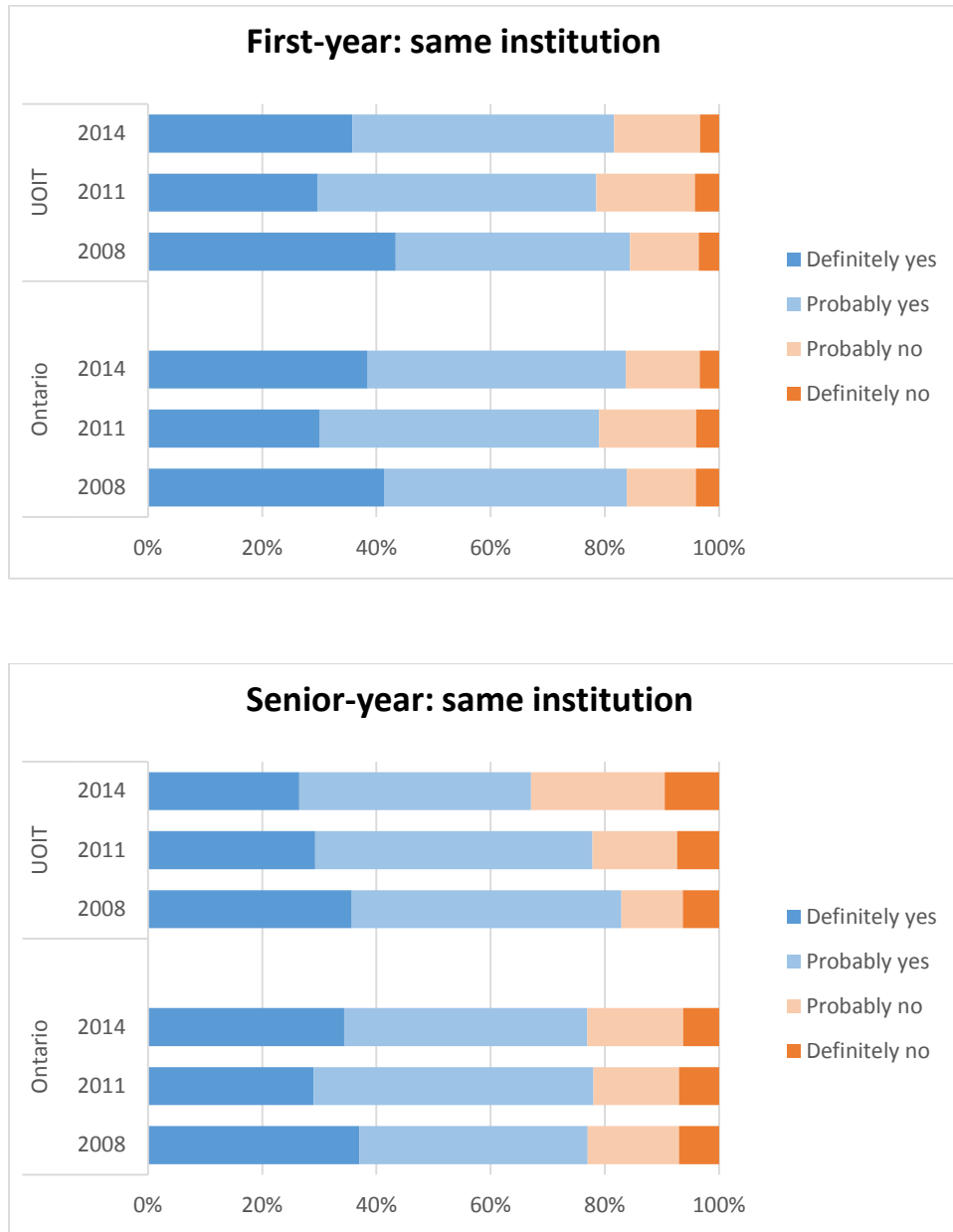


Figure 7 - NSSE overall satisfaction results

NSSE results – What makes UOIT unique

- 14 per cent of participants reported being a **transfer student** – significantly higher than the Ontario average of 5 per cent
- 57 per cent of students reported **first-generation** status compared to only 42 per cent reported as the Ontario average
- 61 per cent of respondents reported their gender as **‘male’** in comparison to only 44 per cent reporting ‘male’ from our Ontario peer group
- 23 per cent students report living in a room or apartment in university **residence** or campus housing, whereas 43 per cent of Ontario NSSE respondents report the same

NSSE notables

The following section highlights findings from the NSSE results where a score was determined ‘significant’ for individual questions asked in the survey. The number in parenthesis is the Ontario Consortium comparable score.

First-year students

- 45 per cent (34) of first-year students said **financial pressures or work obligations** were a major obstacle to their academic progress
- 35 per cent (31) of first-year students said their **academic performance** was a major obstacle to their academic progress
- 25 per cent (19) of first-year students said their **personal or family problems** were a major obstacle to their academic progress
- 35 per cent (30) of first-year students said that UOIT needs to address **‘ensuring a better fit between course content, assignments and test/exams’** to improve the student academic/learning experience in the classroom
- 30 per cent (29) of first-year students said **‘improving the quality of course instruction by professors’** would improve the student academic/learning experience in the classroom.
- 49 per cent (41) of first-year students said **‘improving the quality/availability of study spaces’** would improve the student academic/learning experience outside the classroom.
- 25 per cent (24) of first-year students said if the university **‘provide a better social environment for students’** would improve the student academic/learning experience outside the classroom.
- 16 per cent (14) of first-year students said the **‘did not experience sense of community’** on campus.
- 30 per cent (28) of first-year students said the **quality of information** they received with regards to the **cost of attending university** was poor to very poor.

- 28 per cent (30) of first-year students said they received poor to very poor **quality of information** about the **common academic problems faced by students**.
- 25 per cent (28) of first-year students said they received poor to very poor **quality of information** about **access to personal support services**.
- 24 per cent (28) of first year students live in **residence**.
- Of the 76 per cent of first-year students that don't live in residence, only 5 per cent (10) **walk or bicycle** to school.
- 58 per cent (48) of first-year students said they **reviewed their notes after class** and 59 per cent (56) said they **summarized what they learned in class**.

Senior-year students

- 54 per cent (40) of senior-year students said **financial pressures or work obligations** were a major obstacle to their academic progress.
- 24 per cent (24) of senior-year students said their **personal or family problems** were a major obstacle to their academic progress.
- 29 per cent (26) of senior-year students said **course availability/scheduling** was a major obstacle to their academic progress.
- 40 per cent (33) of senior-year students agreed with **increasing the number or variety of course offerings** in their major would improve the student academic/learning experience in the classroom.
- 27 per cent (31) of senior-year students said **improving the quality of course instruction by professors** is needed to improve the student academic/learning experience in the classroom.
- 59 per cent (47) of senior-year students said improving the **quality/availability of study spaces** would improve the student academic/learning experience outside the classroom.
- 22 per cent (22) of senior-year students said **expanding and /or improving the quality of academic support services** would improve the student academic/learning experience outside the classroom.
- 20 per cent (13) of senior-year students said they **did not experience a sense of community** on campus.
- 31 per cent (38) of senior-year students said they were given poor to very poor **quality of information** on how to **access personal support**.
- 48 per cent (48) of senior-year students said they were given poor to very poor **quality of information on career opportunities after graduation**.
- 50 per cent of senior-year students spent 6 plus hours on campus outside of the **time spent** in class, significantly lower than the Ontario average of 62 per cent.
- Of the 94 per cent of senior-year students that reported not living residence, only 14 per cent (23) **walk or bicycle** to school.
- Only 48 per cent (44) of senior-year students **reviewed their notes** after class, and 58 per cent (54) **summarized what they learned** in class.

Conclusion

This report summarizes the changes to the updated NSSE, establishing a new benchmark for future survey results. The university's participation in NSSE is of great value as it identifies areas of success as well as areas for improvement. Key findings were identified as UOIT outperformed its Ontario comparator group on four of the 10 engagement indicators for both first- and senior-year student participants, 53 per cent of first-year students and 85 per cent of senior-year students participated in at least one high-impact practice.

The university is doing well, on average, in preparing its graduates with transferable skills for employment. Areas for improvement identified are:

1. Program development.
2. Outreach to provide students with more opportunities to participate in experiential learning.
3. Developing students' skills in the areas of making a speech and discussing or debating issues.

NSSE continues to be an integral institutional measure to ensure that the university's student engagement is aligned with its strategic plan.

Appendix A

Ontario Institutions (N=22)

Algoma University (Sault Ste. Marie, ON)
Brock University (St. Catharines, ON)
Carleton University (Ottawa, ON)
King's University College at Western University (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)