

# Summary of Selected Results from the 2008 National Survey of Student Engagement (NSSE)

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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.

In February 2008, Carleton took part in NSSE for the fourth time. As was done for the previous NSSE administration at Carleton, <u>all</u> students who were in their first or final year were invited to participate in the survey. All together, 3,774 students responded, resulting in a 49% response rate. This included 2,103 first-year respondents, and 1,671 final-year respondents (third-year students in a three-year program and fourth-year students in a four-year program).

In 2008 all 19 Ontario universities participated in NSSE, resulting in a comparison group for Carleton that is especially meaningful. While each Ontario university has a distinct mission, all are subject to the same provincial policies and funding arrangements. Throughout this summary, we compare Carleton results to those of the rest of the Ontario consortium<sup>1</sup>, on average. Participating as part of a consortium also allowed the Ontario participants to collectively add a number of supplementary questions to the standard NSSE survey.

## A Profile of Carleton's NSSE Respondents

Fifty-seven percent of both first-year and final-year Carleton respondents were female. This indicates a slight gender response bias, since the gender distribution of students at Carleton is closer to being evenly split: 48 percent of first-year students and 51 percent of final-year students in 2007/2008 were female. The proportion of female respondents is higher for the Ontario consortium, where 63 percent of first-year and 62 percent of final-year respondents were female.

<sup>&</sup>lt;sup>1</sup> Throughout this summary, including charts and tables, any reference to the Ontario Consortium excludes Carleton (for both comparative purposes and statistical testing).

Eighty-two per cent of first-year respondents at Carleton were under the age of 19. The age distribution of first-year respondents is similar to the age distribution found in the Ontario consortium. The final-year respondents at Carleton were more likely to be slightly older than their provincial counterparts. At Carleton, 71 percent of final-year respondents were between the ages of 20 and 23, and 24 percent were between 24 and 29. In the Ontario consortium, 80 percent were between the ages of 20 and 23, and 14 percent were between 24 and 29.

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

| Table 1: Number of Respondents in 2008 by Faculty |            |            |       |  |  |  |
|---|------------|------------|-------|--|--|--|
|   | First-Year | Final-Year | Total |  |  |  |
| Faculty of Arts and Social Sciences               | 612        | 592        | 1204  |  |  |  |
| Faculty of Business                               | 218        | 118        | 336   |  |  |  |
| Faculty of Engineering and Design                 | 365        | 252        | 617   |  |  |  |
| Faculty of Public Affairs                         | 674        | 465        | 1139  |  |  |  |
| Faculty of Science                                | 234        | 244        | 478   |  |  |  |

Of those who were in their final year, 22 percent were in their 3<sup>rd</sup> year of study and 78 percent were in their 4<sup>th</sup> year of study.

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 (88 percent).

Almost half of the first-year respondents (46 percent) reported living on-campus, compared to only three percent of final-year respondents.

Two Ontario consortium questions collect information on the students' <u>parents</u>' education. By combining the educational attainment results for both mother and father, it is possible to determine

the proportion of "first-generation students" – i.e., cases where neither the student's mother nor father had any post-secondary experience. At Carleton, 12 percent of first-year respondents and 13 percent of final-year respondents can be considered first-generation students. When specifying first-generation university students (i.e., neither parent has any <u>university</u> experience) these proportions increase to 33 and 34 percent for first-year and final respondents, respectively. Since individual institutions only have access to aggregate results, we could not determine the province-wide proportion of first-generation students.

#### Selected Results from the 2008 NSSE

We present here the results for selected NSSE survey items, for both Carleton and the Ontario consortium. Also, this year's results will be compared to the 2006 NSSE results, the only other time a census was done. Differences that are statistically significantly different will be noted. Also, please note that due to rounding, some of the result distributions in the following graphs do not add up to 100 percent.

Many of the survey items in NSSE address specific learning experiences and/or are used to construct five NSSE "benchmarks" (described later in this report). There are also a few questions that deal with a student's <u>overall</u> impression of their institution, such as: 'How would you evaluate your entire educational experience at this institution?'

Eighty-three percent of first-year respondents and 80 percent of final-year respondents rated their overall experience at Carleton as either good or excellent. Carleton's results are comparable to those of the Ontario Consortium. Between 2006 and 2008 there was an increase in 'excellent' ratings by final-year respondents (from 22% to 26%) although the difference in response distribution was not found to be statistically significant. **Figure 1** below shows the 2008 results for Carleton, in comparison to the rest of the Ontario Consortium.



Respondents were asked if they had to make the decision again, would they choose the same institution. Results are shown in **Figure 2**. Eighty-five percent of first-year respondents and 78 percent of final-year respondents reported that they would choose Carleton again.

The Carleton result was similar to the Ontario consortium average, excluding Carleton. The distribution of 'definitely yes' and 'probably yes' shows that Carleton respondents are not as definite about their decision compared to their provincial counterparts, although the means comparison showed no statistically significant differences. Between 2006 and 2008, first-year results are virtually identical, while there was a slight increase in final-year respondents choosing 'definitely yes' (from 30 to 33%), although the differences are not statistically significant.



There were three questions on the survey which asked about the quality of the relationships that the respondents had with others on campus. In the survey, the possible answers to these questions were on a seven-point scale ranging from 1 to 7, with the low and high values varying by question:

- With other students: from 1 (unfriendly, unsupportive, sense of alienation) to 7 (friendly, supportive, sense of belonging).
- With faculty members: from 1 (unavailable, unhelpful, unsympathetic) to 7 (available, helpful, sympathetic).
- With administrative personnel and offices: from 1 (unhelpful, rigid, inconsiderate) to 7 (helpful, flexible, considerate).

**Figure 3** below summarizes the 2008 results for each of the three questions for Carleton's first and final-year respondents. To simplify the graph, a common scale has been created (switching the terminology to satisfaction), and values 1 and 2 have been aggregated to very unsatisfied, while 6 and 7 have been combined into very satisfied.



Respondents at Carleton responded similarly to those at other Ontario institutions, on average, with two exceptions: based on a means comparison that NSSE conducts, it was shown that first-year respondents at Carleton reported higher levels of quality with other students, while final-year respondents at Carleton reported better relationships with staff. In addition, between 2006 and 2008, the quality of the relationship with staff reported by final-year respondents has increased.

## **NSSE Benchmarks**

As a way of summarizing the data and establishing educational indicators, NSSE uses clusters of survey items to create five benchmarks. In the figures below, these benchmarks of effective educational practice are compared to the benchmarks of the Ontario consortium, excluding Carleton. Any differences noted in the text are statistically significant. In addition, the benchmarks for 2006 are also included in an effort to track changes over time.

The five NSSE Benchmarks are:

- Level of Academic Challenge
- Active and Collaborative Learning
- Student-Faculty Interaction
- Enriching Educational Experiences
- Supportive Campus Environment

NSSE's description of each benchmark is the text found italicized and in quotation marks at the beginning of each benchmark's section. The specific survey items for each of these benchmarks can be found in Appendix A.

# Level of Academic Challenge

"Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote high levels of student achievement by emphasizing the importance of academic effort and setting high expectations for student performance."

As might be expected, benchmark scores for the Level of Academic Challenge (LAC) are higher for final-year respondents, compared to those in their first-year (**Figure 4**). Between 2006 and 2008 the benchmark for final-year respondents was higher (55.5 vs. 57.3). Compared to the rest of the Ontario Consortium, Carleton's LAC benchmark for first-year respondents is lower, whereas the benchmark for final-year Carleton respondents is higher compared to their provincial counterparts.



## Active and Collaborative Learning

"Students learn more when they are intensely involved in their education and asked to think about what they are learning in different settings. Collaborating with others in solving problems or mastering difficult material prepares students for the messy, unscripted problems they will encounter daily during and after college."

The scores for the Active and Collaborative Learning (ACL) benchmark increases from the first to the final year of a program, as can be seen in **Figure 5**. The ACL scores are comparable between 2006 and 2008. Comparing Carleton and the rest of the Ontario consortium, Carleton's final-year benchmark is lower.



## **Student-Faculty Interaction**

"Students learn firsthand how experts think about and solve practical problems by interacting with faculty members inside and outside the classroom. As a result, their teachers become role models, mentors, and guides for continuous, life-long learning."

As can be seen in **Figure 6**, the interaction between students and faculty increases from first- to final-year. Carleton's 2008 final-year benchmark score is statistically significantly higher than 2006's score while no significant difference exists across time for first-year respondents. Carleton's results in 2008 are similar to the benchmark score for the Ontario consortium, excluding Carleton.



## **Enriching Educational Experiences**

"Complementary learning opportunities in and out of the class augment academic programs. Diversity experiences teach students valuable things about themselves and others. Technology facilitates collaboration between peers and instructors. Internships, community service, senior capstone courses provide opportunities to integrate and apply knowledge."

In general, the benchmark scores for Enriching Educational Experiences (EEE) increase from firstyear to final-year (**Figure 7**). Between 2006 and 2008 Carleton's EEE benchmark scores are not statistically significantly different. In 2008, Carleton's EEE benchmark score for final-year is lower than their Ontario counterparts' score.



# Supportive Campus Environment

"Students perform better and are more satisfied at colleges that are committed to their success and cultivate positive working and social relations among different groups on campus."

The benchmark score for Supportive Campus Environment (SCE) is the only indicator that is higher for the first-year cohort in comparison to those in their final year, as shown in **Figure 8**. For final-year respondents, Carleton's score increased between 2006 and 2008. Compared to the rest of the Ontario Consortium in 2008, Carleton's SCE benchmark score is higher for both first-year and final year.



## Summary of Benchmark Differences

There are a number of differences found between benchmark scores (summarized in **Table 2** below). Over time, it can be concluded that any differences between 2006 and 2008 resulted in higher benchmark scores (only differences occurred in final-year scores). In 2008, some differences between Carleton and the Ontario consortium were positive, while some were negative.

| Table 2: Summary of Statistically Significant Differences |            |            |             |            |         |            |             |
|---|------------|------------|-------------|------------|---------|------------|-------------|
|   | First-Year |            |             | Final-Year |         |            |             |
|   | CU<br>2008 | CU<br>2006 | Ont<br>2008 |            | CU 2008 | CU<br>2006 | Ont<br>2008 |
| Level of Academic Challenge                               | 50.3       | Similar    | 51.4        |            | 57.3    | 55.5       | 55.8        |
| Active and Collaborative<br>Learning                      | 34.8       | Similar    | Similar     |            | 42.6    | Similar    | 44.1        |
| Student Faculty Interaction                               | 24.1       | Similar    | Similar     |            | 32.4    | 30.2       | Similar     |
| Enriching Educational<br>Experiences                      | 25.1       | Similar    | Similar     |            | 33.3    | Similar    | 34.9        |
| Supportive Campus<br>Environment                          | 56.8       | Similar    | 55.9        |            | 53.3    | 50.2       | 51.4        |

Legend: Benchmark is statistically significantly <u>higher</u> than Carleton's 2008 results Benchmark is statistically significantly <u>lower</u> than Carleton's 2008 results

## Most Needed Improvement

Participating as a consortium, the Ontario participants were able to add a set of questions to the standard NSSE survey instrument. The results in this section are an example of an Ontario consortium question.

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 <u>inside</u> the classroom, we see in **Table 3** that first-year Carleton respondents were most likely to choose improving the quality of teaching assistants (28%), and the quality of course instruction by professors (24%). Final-year respondents were most likely to choose increasing the number or variety of course offerings *in their major* (35%), as well as the quality of course instruction by professors (28%). The order of items in Table 3 is the order in which the items were listed in the survey instrument.

| Table 3: Improving the Student Academic Experience In the Classroom at CarletonProportion of Respondents who Selected Each Item2 |            |            |  |  |  |  |  |
|--|------------|------------|--|--|--|--|--|
| University most needs to address   | First-Year | Final-Year |  |  |  |  |  |
| Improving the quality of classrooms or lecture halls   | 15%        | 17%        |  |  |  |  |  |
| Improving the quality of course instruction by professors  | 24         | 28         |  |  |  |  |  |
| Improving the quality of teaching assistants   | 28         | 21         |  |  |  |  |  |
| Ensuring a better fit between course content, assignments, and tests/exams   | 21         | 15         |  |  |  |  |  |
| Increasing the number or variety of course offerings in your major   | 20         | 35         |  |  |  |  |  |
| Increasing the number or variety of course offerings outside your major  | 8          | 9          |  |  |  |  |  |
| Reducing class sizes overall   | 19         | 13         |  |  |  |  |  |
| Improving the quality of labs  | 5          | 8          |  |  |  |  |  |
| Improving student access to information technology   | 5          | 6          |  |  |  |  |  |
| Providing more current/relevant courses and curriculum   | 7          | 9          |  |  |  |  |  |
| Changing the mix of lectures, seminars, tutorials, and labs  | 8          | 7          |  |  |  |  |  |
| Increasing opportunities to learn more about global issues   | 10         | 6          |  |  |  |  |  |

When comparing Carleton respondents' 'wish list' to their counterparts at other Ontario universities, controlling for year level, they are remarkably similar, with a few exceptions. Carleton respondents are more likely to feel that the quality of teaching assistants needs to be addressed: 28 percent of first-year Carleton respondents chose this as one of their items, compared to 22 percent of those at other Ontario universities, on average. A similar difference was seen for final-year respondents at Carleton and in the Ontario consortium (excluding Carleton): 21 percent and 14 percent, respectively. These results have improved since 2006, where 35 percent of first-year respondents and 24 percent of final-year respondents indicated that the quality of teaching assistants needed to be improved. This improvement is statistically significant.

The only other difference which stood out between the results for Carleton and the average for the other Ontario universities was the rate at which respondents chose the item 'ensuring a better fit between course content, assignments, and tests/exams'. At Carleton, 21 percent of first-year respondents and 15 percent of final-year respondents chose this as one of their two items, whereas 26 percent of first-year respondents and 21 percent of final-year respondents chose this item in the other Ontario universities, on average. It would appear that this is not as much of a preoccupation

<sup>&</sup>lt;sup>2</sup> Columns will add up to more than 100% since respondents could choose up to two items from the list.

for Carleton respondents, although it has increased from 2006 for first-year respondents (from 18 to 21 percent of respondents selecting this item).

**Table 4** 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 <u>outside</u> the classroom. There was a fair amount of variation amongst first-year Carleton respondents, although the quality/availability of study spaces was chosen most often. Responses amongst final-year respondents at Carleton were slightly more concentrated than those from first-year respondents. Specifically they reported that improving the quality/availability of study spaces and more opportunities to undertake research with faculty, were most needed.

| Table 4: Improving the Student Academic Experience Outside the Classroom at Carleton   Proportion of Respondents who Selected Each Item 3                               |     |                |  |  |
|---|-----|----------------|--|--|
| University most needs to address  |     | Final-<br>Year |  |  |
| Increasing contact with professors outside of class (e.g., office hours)  | 24% | 15%            |  |  |
| Expanding and/or improving the quality of academic support services (e.g., study skills, library skills, writing/math skills, academic advising, career advising, etc.) | 20  | 16             |  |  |
| Expanding and/or improving the quality of personal support services (e.g., counselling)   | 12  | 11             |  |  |
| Providing students with more opportunities to undertake research with faculty   | 19  | 33             |  |  |
| Improving the library collection  | 10  | 15             |  |  |
| Improving library services (e.g., circulation, staff availability, internet/computer availability, etc.)  | 9   | 10             |  |  |
| Improving the quality/availability of study spaces  | 31  | 39             |  |  |
| Increasing the opportunities for international experiences (e.g., exchanges, study abroad)  | 16  | 13             |  |  |
| Working to provide a better social environment for students   | 22  | 17             |  |  |

Compared to the Ontario results (excluding Carleton), in general, Carleton respondents were less likely to indicate that they'd like to see increased contact with professors outside of class and expanding academic support services, but more likely to indicate that they'd like to see an improvement in the library collection, library services, and study space. Between 2006 and 2008, first-year respondents were less likely to choose to improve personal counseling services, improvements in the library collection and library services, whereas final-year respondents were less

<sup>&</sup>lt;sup>3</sup> Columns will add up to more than 100% since respondents could choose up to two items from the list.

likely to indicate needed improvement in academic support services and library collections, but were more likely to want a better social environment.

#### **Conclusion**

In 2008 Carleton University invited all first-year and final-year students to participate in NSSE. Since this census approach was also used in 2006, results can be meaningfully compared between the two survey years, as was done in this summary report of selected results. The results chosen for this report were those that are used for external reporting purposes, were of great interest as first results last time, or both.

Between 2006 and 2008, no statistically significant differences existed in Carleton's results for the questions dealing with students' overall impressions of their university. Any differences found in the benchmarks were concentrated amongst final-year respondents and all represented increases in benchmark scores. In terms of priorities for needed improvement, respondents have similarly ranked 'wish lists' both in and out of the classroom as they did in 2006: The quality of TAs in the classroom, and study space outside the classroom. It should be noted that while the same items were picked most often in both 2006 and 2008, the proportion of respondents selecting TAs decreased, while the proportion remained relatively the same for study space.

As was the case in 2006, the participation of all Ontario Universities in NSSE in 2008 has meant particularly meaningful comparisons can be made. This year's results show that Carleton has comparable results with the Ontario average on questions dealing with students' overall impressions of their university.

There are some differences in benchmark scores in 2008 between Carleton and the average for their provincial counterparts. For first-year respondents, Carleton was shown to have a higher benchmark score for Supportive Campus Environment, and a lower score for the Level of Academic Challenge. For final-year respondents, Carleton had a higher score for the Level of Academic Challenge and Supportive Campus Environment, but had a lower score for Active and Collaborative Learning and Enriching Educational Experiences.

The large sample size collected in 2008 means that we can perform further analysis beyond this summary, such as determining results for academic Faculties and comparing the engagement of

final-year students who are in three- or four-year programs, as well as digging deeper into individual survey items of interest to the Carleton community. For the first time, Carleton will establish a NSSE Advisory Committee which, amongst other things will help shape the research agenda.

For more information on NSSE, please go to <u>nsse.iub.edu</u>. The Canadian version of the NSSE survey instrument can be found at: <u>http://nsse.iub.edu/html/sample.cfm</u>.

For more information on Carleton University, and the results of the surveys in which it participates, please go to <u>www.carleton.ca/oirp</u>.

#### SURVEY ITEMS IN NSSE BENCHMARKS

## APPENDIX A

#### Level of Academic Challenge

- Preparing for class (studying, reading, writing, rehearsing, etc. related to academic program)
- Number of assigned textbooks, books, or book-length packs of course readings
- Number of written papers or reports of 20 pages or more; number of written papers or reports of between 5 and 19 pages; and number of written papers or reports of fewer than 5 pages.
- Coursework emphasizing analysis of the basic elements of an idea, experience or theory.
- Coursework emphasizing synthesis and organizing of ideas, information, or experiences into new, more complex interpretations and relationships.
- Coursework emphasizing the making of judgements about the value of information, arguments, or methods.
- Coursework emphasizing application of theories or concepts to practical problems or in new situations.
- Working harder than you thought you could to meet an instructor's standards or expectations.
- Campus environment emphasizing time studying and on academic work.

#### **Active and Collaborative Learning Items**

- Asked questions in class or contributed to class discussions.
- Made a class presentation.
- Worked with other students on projects during class.
- Worked with classmates outside of class to prepare class assignments.
- Tutored or taught other students.
- Participated in a community-based project as part of a regular course.
- Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

#### **Student-Faculty Interaction Items**

- Discussed grades or assignments with an instructor.
- Talked about career plans with a faculty member or advisor.
- Discussed ideas from your readings or classes with faculty members outside of class.
- Worked with faculty members on activities other than coursework (committees, orientation, student-life activities, etc.)
- Received prompt feedback from faculty on your academic performance (written or oral).
- Worked with a faculty member on a research project outside of course or program requirements.

#### **Enriching Education Experiences**

- Participating in co-curricular activities (organizations, publications, student government, sports, etc.).
- Practicum, internship, field experience, co-op experience, or clinical assignment.
- Community service or volunteer work.
- Foreign language coursework & study abroad.
- Independent study or self-design major.
- Culminating senior experience (comprehensive exam, capstone course, thesis, project, etc.).
- Serious conversations with students of different religious beliefs, political opinions, or personal values.
- Serious conversations with students of a different race or ethnicity.
- Using electronic technology to discuss or complete an assignment.
- Campus environment encouraging contact among students from different economic, social, and racial or ethnic backgrounds.
- Participate in a learning community or some other formal program where groups of students take two or more classes together.

#### **Supportive Campus Environment Items**

- Campus environment provides the support you need to help you succeed academically.
- Campus environment helps you cope with your non-academic responsibilities (work, family, etc.).
- Campus environment provides the support you need to thrive socially.
- Quality of relationships with other students.
- Quality of relationships with faculty members.
- Quality of relationships with administrative personnel and offices.