

Report:

# Measuring UP

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*Using data from the 2004 National Survey of Student Engagement  
to measure progress toward the student experience objectives identified in  
**Stepping UP: A Framework for Planning at the University of Toronto 2004-2010***

**February 15, 2005**

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## About the National Survey of Student Engagement

The National Survey of Student Engagement (NSSE) was developed by the Indiana University Center for Postsecondary Research and is used at over 400 U.S. universities annually to assess how well students are learning and what they get out of, and put into, their undergraduate experience. The University of Toronto, along with 7 other Canadian research universities, participated as a consortium in the survey for the first time in 2004.

NSSE was identified as an appropriate tool to assist the University through a process of institutional change as we work to meet the objectives outlined in Stepping UP.

The survey is based on decades of research into the outcomes of a quality education and integrates both the curricular (in class) and co-curricular (out of class) experiences in ways envisioned by the academic plan.

The Canadian version of the survey revises the terminology where necessary and includes an additional 10 questions developed by the Canadian consortium of participating institutions. In February and March 2004, over 4,000 first- and senior-year undergraduate students in all first entry faculties at U of T were invited to participate in NSSE. The results give us the ability not only to compare our performance with peer institutions in Canada and the U.S. but to measure, over time, our progress in enhancing the undergraduate student experience.

U of T NSSE Basics			
	First Year	Senior Year	Overall
<b>Sample Size</b>	2,356	2,127	4,483
<b>Response Rate:</b>	56%	51%	53%
<b># of Respondents</b>	1263	1048	2311
<b>Sample Error:</b>	2.6%	2.8%	1.9%
<b>Respondents under</b>			
<b>24 years of age:</b>	94.5%	76.4%	86.4%
<b>Gender</b>			
Male:	42.2%	40.0%	41.2%
Female:	57.8%	60.0%	58.8%
<b>Enrolment Status</b>			
Full-time:	87.1%	79.8%	83.8%
<b>Place of Residence</b>			
Living off Campus:	73.1%	94.1%	82.6%
<b>% who Identify as</b>			
<b>Visible Minorities:</b>	55.2%	47.9%	51.9%

### *The NSSE Benchmarks*

NSSE provides each participating institution with a Benchmark Report (Appendix A) comparing scores on key questions with those of other participating institutions. To determine these scores, NSSE identifies and groups a number of questions into five broad categories – called the benchmarks of effective educational practice: Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences and Supportive Campus Environment.

The U of T Benchmark Report (Appendix A) provides three comparison groups: the combined averages for (1) the G10 consortium of Canadian research universities (UBC, McGill, Alberta, Waterloo, Western, Queen's and McMaster), (2) the participating U.S. Doctoral-Extensive institutions and (3) the NSSE national norms for all participating institutions. The Benchmark Report confirms much of what we already know – and are addressing – through Stepping UP. The University of Toronto, broadly, provides a level of academic challenge commensurate with our peer institutions in Canada and the U.S., particularly in the first year. We set high expectations for our students and students work hard to meet those expectations. On the other benchmarks, there is work to be done. The remainder of this report explores some of those areas in the context of the priorities already established through the academic planning process.

### *Measuring UP Initiative*

The primary motivation in bringing the NSSE to U of T was not to compare ourselves to other institutions but rather to help us identify and measure the results of specific and strategic initiatives over time. To this end, staff in the Office of the Vice-Provost, Planning and Budget and the Office of Student Affairs have been analyzing the results in the context of the University's academic planning framework Stepping UP.

The results presented in this report are University-wide; that is, they include the responses of students in all first-entry faculties, all 3 campuses. This allows us to develop an overall picture of the U of T undergraduate student experience. There are, of course, campus and divisional differences within the results. We will work with divisions to isolate and better understand these distinctions.

## About Stepping UP

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**Stepping UP**, U of T's new academic plan represents the next stage in the university's ongoing growth and development. The plan sets forth U of T's vision for the coming years: to be a leader among the world's best public teaching and research universities in the discovery, preservation and sharing of knowledge. To this end, Stepping UP builds on the University's commitment to **excellence, equity and outreach** through five key priority objectives:

- Enhancing the student experience
- Interdisciplinary activity
- Linking academic programs to research experiences
- Outreach: local, national, global
- Equity and diversity

The NSSE results selected as highlights for this report were chosen for their direct or indirect relationship to the objectives outlined in Stepping UP Synthesis (November 29, 2004) and, specifically, for their relevance to priority objective #1: ***Every student will have the opportunity for an outstanding and unique experience at the University of Toronto.***

The NSSE results will prove particularly useful in identifying the impact of several student experience initiatives already in development across the University, including:

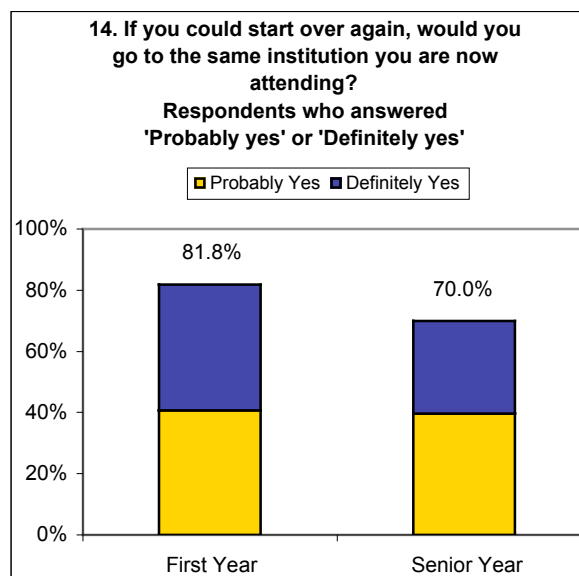
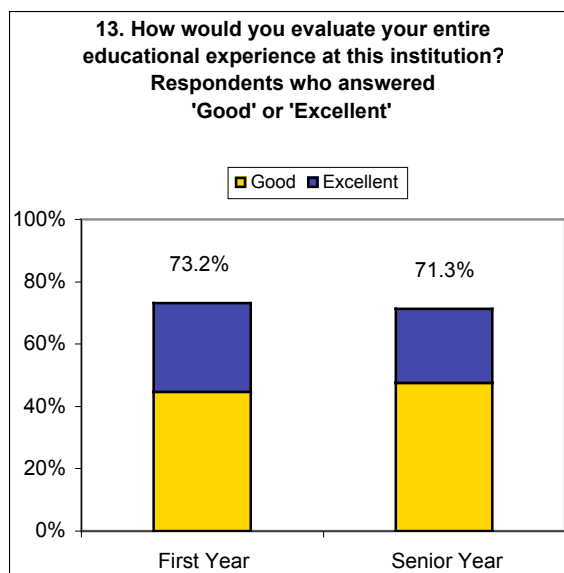
- The recommendations of the Task Force on Student Housing
- The recommendations of the Task Force on Orientation and Transition, including the implementation of First-year Learning Communities in several divisions
- Enhancements in student activity space on all three campuses providing opportunities for social interaction, study group meetings and informal learning particularly for commuter students.
- Efforts to enhance students' skills and their abilities to apply what they have learned through community outreach and other opportunities
- Initiatives aimed at improving the quality of student advising and co-curricular support
- Efforts to increase the number of opportunities for undergraduate research, internships and student projects
- Enhanced collaboration with municipal and community partners to enable student participation in the wider community through the Centre for Community Partnerships and other initiatives.

For the most part, the NSSE results support what we already know about the strengths and weaknesses of the undergraduate student experience at the University of Toronto and confirm that we are on the right track with the initiatives that have emerged as a result of the Stepping UP process. NSSE is one of several tools we will use in the coming months and years to generate discussion, collaboration, creativity and risk-taking in our efforts to enhance the student experience and to measure our progress toward reaching our stated goals and objectives.

## I. NSSE Overall Indicators

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While most of the NSSE questions focus on the specific activities and perceptions of students, the Canadian version of the survey included two overall questions that provide some insight into the general satisfaction among undergraduates.



Questions 13 & 14 are useful in two ways. First, they allow us to compare the overall experience against certain other factors so that we can isolate what activities on campus affect general satisfaction. For example, by comparing students' level of co-curricular involvement with Q.13, we come to understand that student participation in co-curricular activities generally leads to a more positive overall experience. As we move through the NSSE results in the coming months, it will be important to approach each area of concern with an understanding of whether we are dealing with a question of educational engagement, of satisfaction, or both.

Questions 13 & 14 also serve to remind us that although most undergraduate students view their experiences here favourably, there are significant numbers of students whose expectations have not been met. Given the challenges of funding, enrolment growth, space and the nature of our student population, these results are not surprising. However, they are cause for concern. The results speak to the need for a greater understanding of the barriers faced by some of our students and to the need for more strategic interventions to address those barriers. The remainder of this report is dedicated to exploring some of those areas.

## II. The Experience of Commuter Students

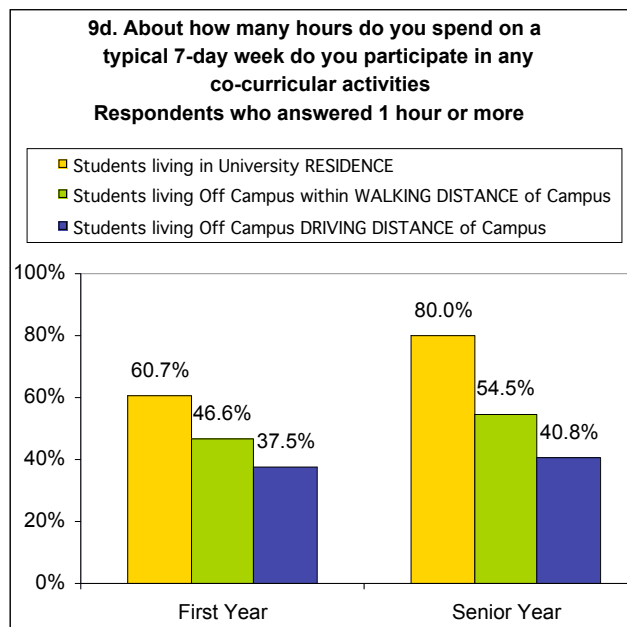
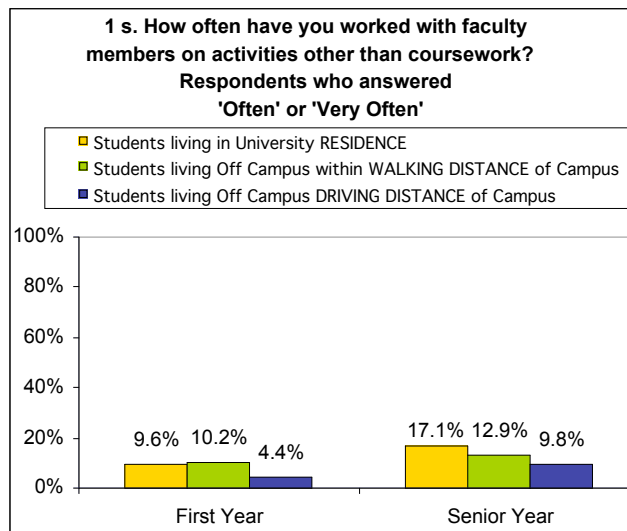
Stepping UP notes that engagement of students in the life of the University beyond the classroom can be limited, particularly for those not living in residence. The NSSE results support that assumption and provide us with more information about the level of engagement among that population. The results provide a basis of comparison between the engagement of students in residence, students who live within walking distance of the campus and students who do not live within walking distance – the latter group being those we traditionally describe as “commuter” students.

It is important to note the distinctions between the level of engagement of commuter students – what they actually do on campus – and their general level of satisfaction with the experience. The responses of commuter students to questions of overall satisfaction (Q.13&14) do not differ dramatically from their peers on and near campus. They are somewhat less enthusiastic in their responses but, particularly by their senior year, are just as likely as the students in residence to say they would choose U of T again if given the opportunity to start over.

Many of the other NSSE questions, however, clearly demonstrate that commuter students are substantially less engaged:

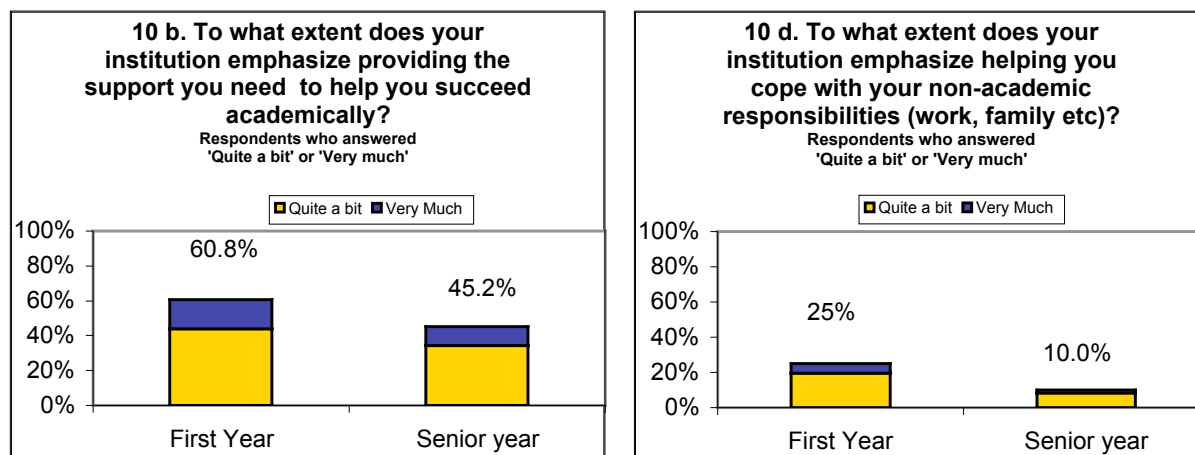
- They are **less likely to have worked with faculty members** on activities other than coursework (committees, orientation, student life activities, etc.) [Q.1s] **or to have discussed ideas from readings or classes with others** outside of class (students, family members, co-workers, etc.) [Q.1t]
- **61% spend 0 hours participating in co-curricular activities** (organizations, campus publications, student government, social fraternity or sorority, intercollegiate or intramural sports, etc.) [Q.9d]
- Commuter students in first year are **more likely to see their fellow students as unsupportive and to experience a sense of alienation.** [Q.8a]

There are many possible explanations for the apparent contradiction in the experience and attitudes of commuter students, including: differing expectations of the University; a focus on engaging with their home community, rather than the University community, a commitment to living with family for economic or other reasons.



### III. Enhanced Student Services

Stepping UP identifies “enhancement of student services” as a key objective. While the NSSE results do not help us evaluate the effectiveness of any one particular student service, the data do provide some indicators of the general perception of institutional support for students’ academic and non-academic needs. Questions 10b&d, below, show that students perceive the University as more supportive in the area of academic success than in helping them cope with non-academic responsibilities.

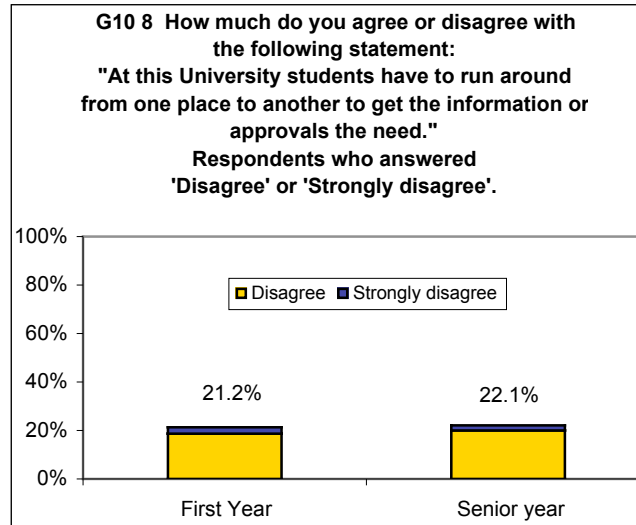


The NSSE results can help us to identify the particular barriers students face in the pursuit of their undergraduate degree. **More than 40% of the students surveyed spend at least some time each week caring for dependents living with them [Q.9f]; 46% are working off-campus and almost half spend at least 6 hours per week commuting.** Students report that the biggest obstacle to their academic progress is their own academic performance (in first year) and financial pressures or work obligations (in fourth year). [see G10(9)]

<b>G10 (9). Which of the following factors poses, or has posed, the BIGGEST obstacle to your academic progress?</b>			
<b>First year</b>		<b>Senior year</b>	
Your Academic performance at university	38.1%	Financial Pressures or work obligations	23.9%
Financial Pressures or work obligations	17.6%	Your Academic performance at university	21.0%
Family/personal problems or obligations	12.4%	Family/personal problems or obligations	19.6%
Lack of good academic advising	5.8%	Other academic or administrative obstacles	7.6%
Other academic or administrative obstacles	3.6%	Lack of good academic advising	7.5%
Difficulties getting the courses you need	2.2%	Difficulties getting the courses you need	4.3%
Other	9.5%	Other	5.7%
Na/you have faced no obstacles	10.7%	Na/you have faced no obstacles	10.5%



In addition to identifying areas for improvement in meeting student needs, NSSE can also help us to assess the overall effectiveness of our system of student support. The G10 consortium question (8) below provides an indication of the ease with which students navigate the administrative structure of the University.



## IV. Improving Skills Development

The Stepping UP companion paper on the student experience identifies a number of educational outcomes associated with an undergraduate degree – including the ability to think, communicate, collaborate, make informed decisions, and to act as responsible citizens. The NSSE results provide us with a number of indicators of how students feel their university experience has helped them in developing the skills and abilities associated with these outcomes. [Q.11, right]

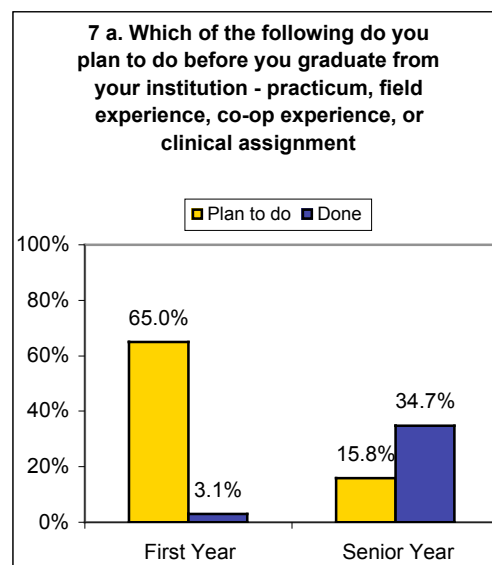
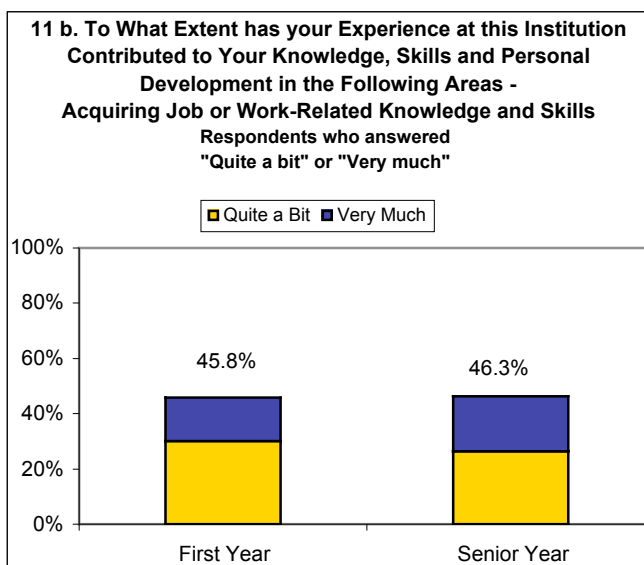
Q.11. To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in...	Percent who responded "Very Much"		
	First Year	Senior Year	Overall
Thinking critically and analytically	42.5%	50.9%	46.3%
Learning effectively on your own	43.2%	44.6%	43.8%
Acquiring a broad general education	34.1%	39.4%	36.5%
Analyzing quantitative problems	27.9%	30.9%	29.2%
Using computing and information technology	25.7%	31.2%	28.2%
Writing clearly and effectively	20.0%	29.9%	24.4%
Understanding yourself	20.8%	24.2%	22.4%
Working effectively with others	18.7%	22.7%	20.5%
Speaking clearly and effectively	14.6%	22.1%	18.0%
Acquiring job or work-related knowledge and skills	15.8%	19.9%	17.7%
Understanding people of other racial and ethnic backgrounds	16.4%	18.2%	17.2%
Solving complex real-world problems	15.4%	17.8%	16.5%
Developing a personal code of values and ethics	14.5%	16.6%	15.5%
Contributing to the welfare of your community	8.0%	9.2%	8.5%
Developing a deepened sense of spirituality	6.9%	5.6%	6.3%
voting in local, provincial or federal elections	6.2%	4.5%	5.4%

### Civic participation

Experimental questions (those added to the survey by NSSE in 2004) provide some insight into the level of civic participation. Among U of T respondents, 64% said they had never expressed their opinion about a political or community issue in a public form (e.g. sent a letter or email to the media, contacted a government official, made a speech or signed a petition) and 86.6% had never attended a rally, vigil or protest about an issue important to them.

### Career development

The level of engagement in opportunities related to the development of career-related skills is reflected in several NSSE questions, two of which are presented below.



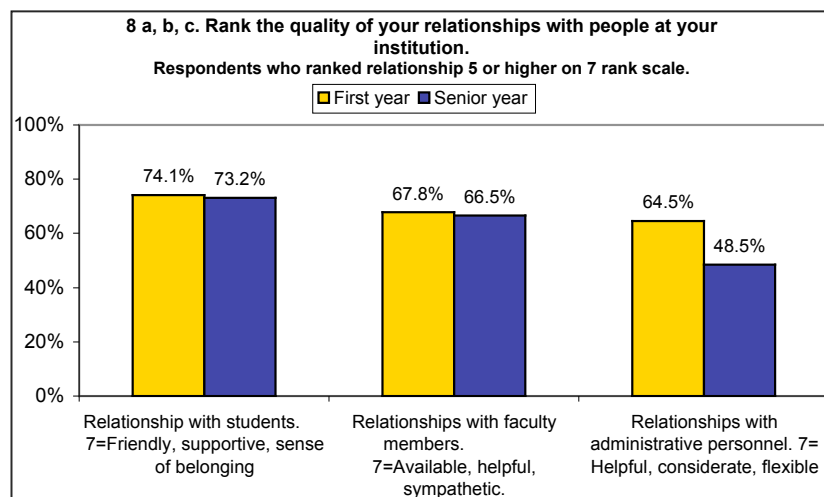
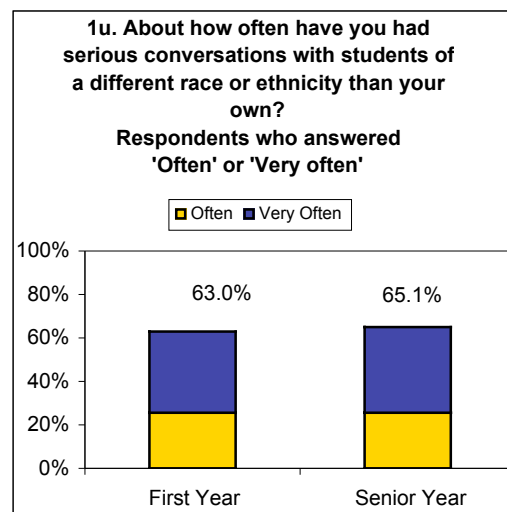
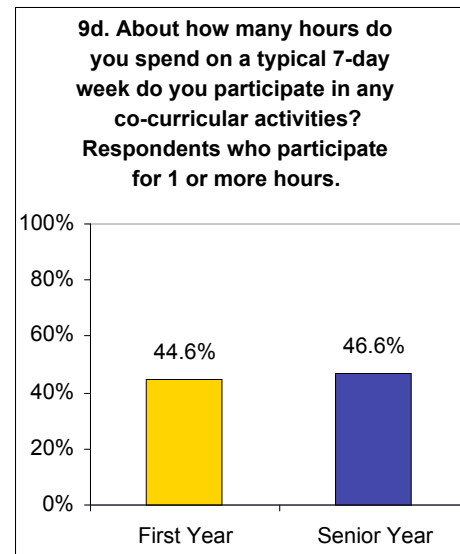
## V. Enhancing Student Involvement and Sense of Community

NSSE provides us with several useful indicators of our progress in meeting the goals in Stepping UP related to student involvement in the University and wider community. Overall, less than half of U of T students responding to the survey report spending any time participating in co-curricular activities (Q.9d, right). However, the level of participation varies by a number of other factors, including campus/faculty and, as noted earlier, by place of residence.

The NSSE results also demonstrate a strong relationship between the level of co-curricular involvement and the level of satisfaction with the entire educational experience. That is, **the more involved students are, the higher they rate the entire educational experience – with the notable exception of those students who spend more than 25 hours per week in co-curricular activities.** Students involved at that level are less likely to rate their entire educational experience as “good” or “excellent”.

The degree of **cross-cultural communication** [Q.1u, right] will also provide insight into the cohesiveness of the University community. While the majority of students are interacting with students of different racial and ethnic backgrounds, the fact that some 36% report rarely or never having such conversations warrants some attention, particularly given the diversity of the community.

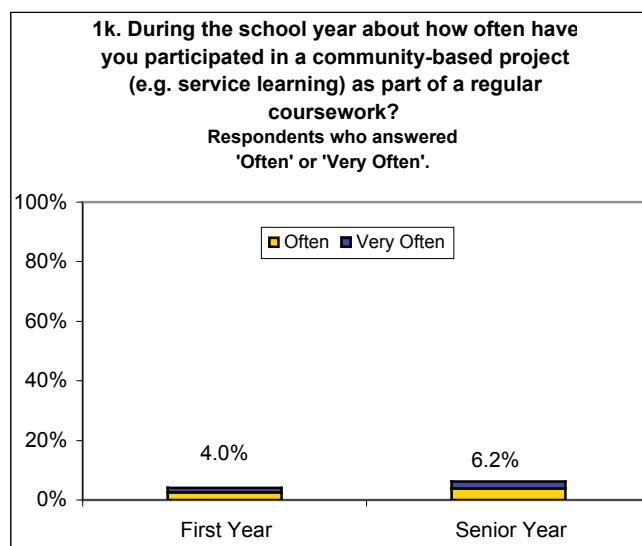
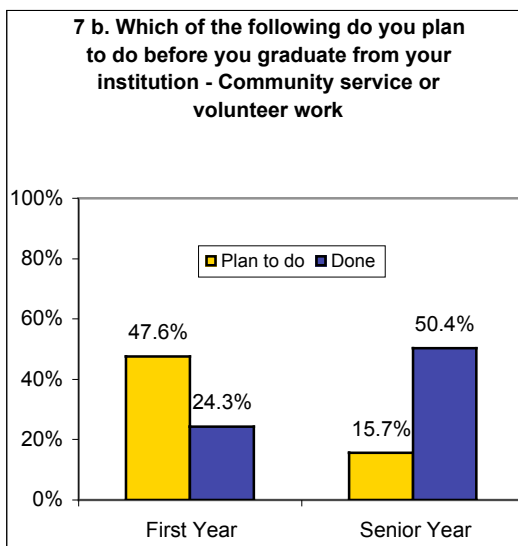
The perception of a sense of community is also reflected in a series of questions that ask students to rank the quality of their relationships with other students, with faculty members, and with staff. There are many ways to present these results. The chart below (8a,b,c) shows the percentage of respondents who rank their relationships on campus with a 5 or greater, on a 7 point scale.



## VI. Participation in Community Service

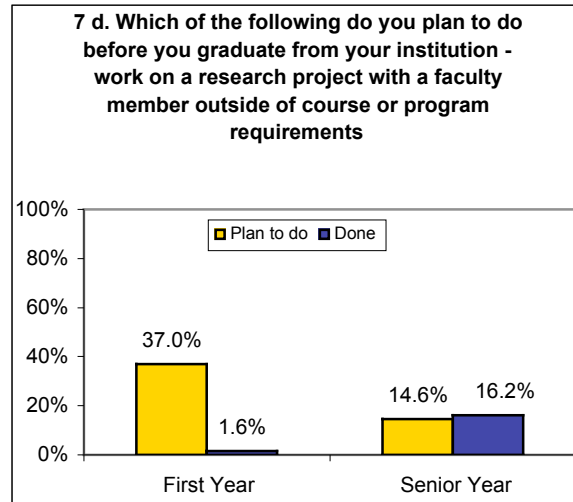
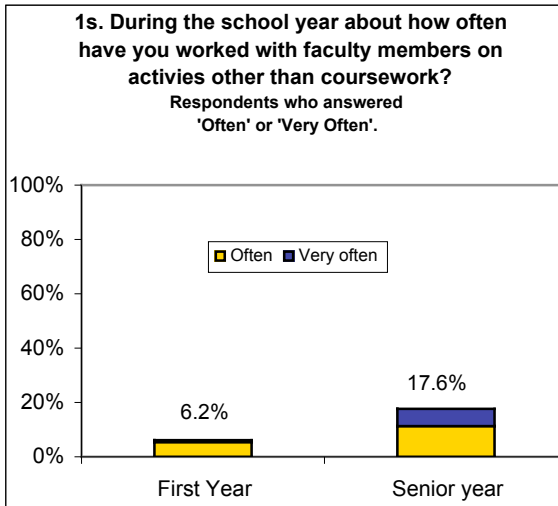
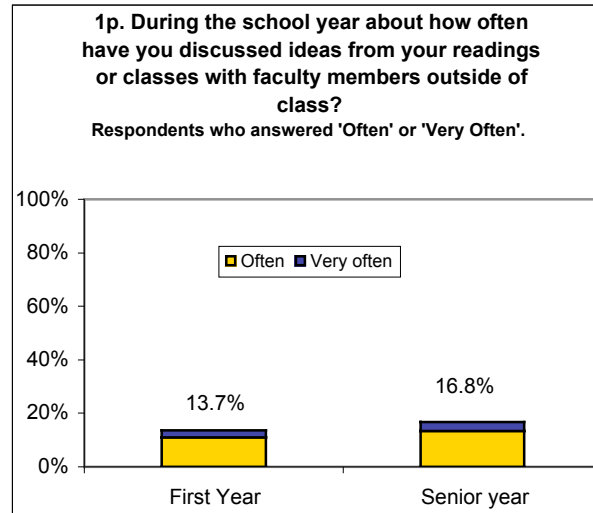
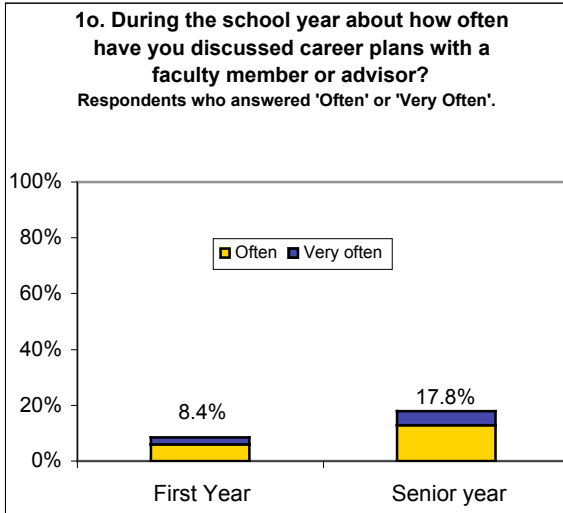
Almost 70% of students surveyed report having either participated or the intention to participate in community service or volunteer work. This is one of few areas where the level of engagement is actually higher among commuter students than students in residence; 37% of commuter students had already participated in community service or volunteer work versus 29% of students in residence. [Q.7b] One possible explanation is that commuter students are involved in their home neighbourhoods and continue to make contributions there.

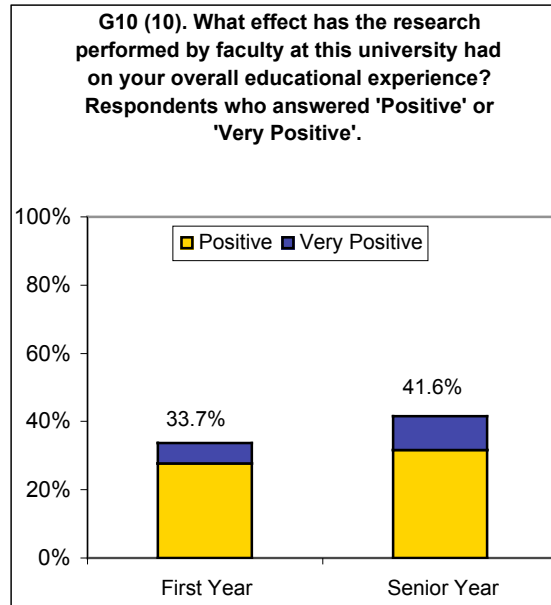
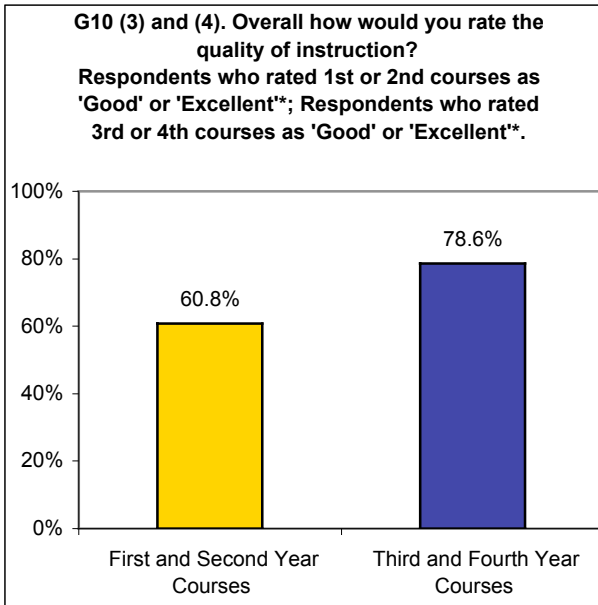
One indicator of the level of institutional support for –and educational value of – community service is reflected in the degree of integration with course work. The chart below demonstrates that much of the community service and volunteer work performed by students at U of T is taking place outside of the context of their academic program.



## VII. Faculty-student Interaction & Quality of Instruction

NSSE provides substantial insight into the level of faculty-student interaction that takes place both within and outside of the classroom as well as some indicators of the quality of instruction and the value of studying in a research institution.





\* Excludes students who responded 'not applicable - have not taken 1st or 2nd/3rd or 4th year courses here.'

## Next Steps

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Broad discussion of the NSSE results will take place in each of the relevant divisions and among faculty, staff, students, administration and governance. Those discussions will be facilitated through a series of related initiatives:

- Some of the results will be explored further – through interviews, focus groups, and other survey results – and presented to the University community in a series of “Measuring UP” briefs.
- The Office of the Vice-Provost, Students will host a one-day “Measuring UP” conference on NSSE on **Tuesday, May 3, 2005**. Prof. George Kuh, Director of the Center for Postsecondary Research at Indiana University, and Dr. Jillian Kinzie, Associate Director of the NSSE Institute, will present workshops on using NSSE results for institutional change. The conference will be open to faculty, staff and students with an interest in helping the University move forward on its plans to enhance the student experience.
- We will continue to administer NSSE every two years. The next scheduled survey would take place in the 2005/06 winter session.

NSSE is one of several new assessment initiatives that will inform the planning process as it relates to the student experience. The Office of the Vice-Provost, Students is currently working with a service provider to assess and evaluate specific programs and aspects of the student experience here. We are also working with the Higher Education Group in the Department of Theory and Policy Studies at OISE-UT to develop more “in-house” expertise to continue to assess student learning and development.

## For More Information

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The National Survey of Student Engagement is a project of the Office of the Vice-Provost, Students with assistance from the Office of the Vice-Provost, Planning & Budget, University of Toronto. This report was prepared by Deanne Fisher, Office of Student Affairs with the support of Corinne Pask-Aubé of Planning & Budget.

For more information on NSSE visit: [www.indiana.edu/~nsse](http://www.indiana.edu/~nsse)

For more information on U of T’s participation in NSSE and the results, contact:

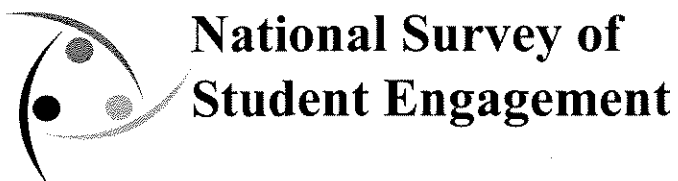
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# **Institutional Benchmark Report**

November **2004**

***University of Toronto***

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## Introduction

The National Survey of Student Engagement (NSSE) annually assesses the extent to which undergraduate students are involved in educational practices empirically linked to high levels of learning and development. In an effort to make it easier for people on and off campus to talk productively about student engagement and its importance to student learning, collegiate quality, and institutional improvement, NSSE created five clusters or benchmarks of effective educational practice:

- (1) Level of academic challenge
- (2) Active and collaborative learning
- (3) Student-faculty interactions
- (4) Enriching educational experiences
- (5) Supportive campus environment.

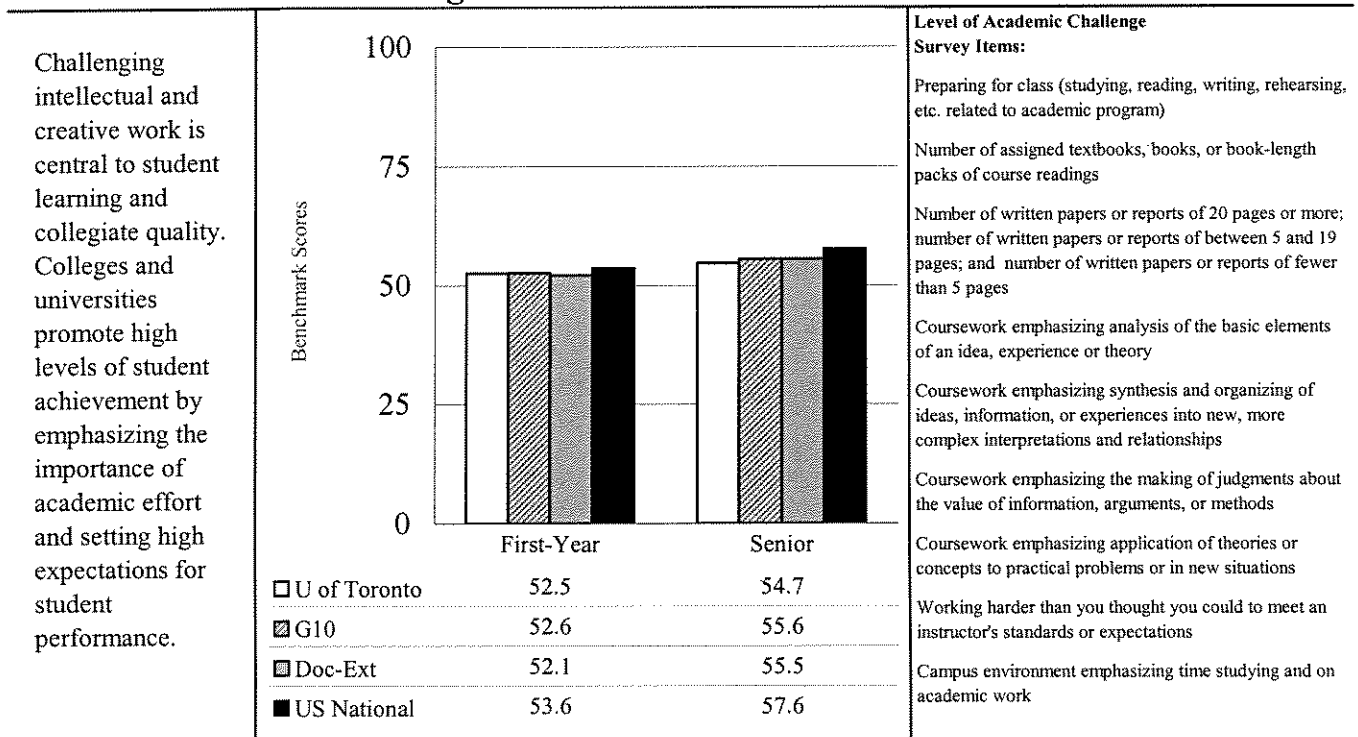
The benchmarks are made up of groups of items on the survey and are expressed in 100-point scales. Each year, NSSE calculates benchmark scores to monitor performance at the institutional, sector, and national level. This year's analysis is based on approximately 162,000 randomly selected students at 472 four-year colleges and universities that participated in 2004. The students represent a broad cross-section of first-year and senior students from every region of the country. The institutions are similar in most respects to the universe of four-year schools. More detailed information about the benchmarks can be found in the annual report that accompanies this mailing and on the NSSE website at [www.iub.edu/~nsse](http://www.iub.edu/~nsse).

## Benchmark Report

The Benchmark Report presents your institution's benchmark scores and compares them to schools in your Carnegie Classification, and the NSSE national norms. In addition, it provides summary statistics, a decile chart that gauges your institution's performance compared with other schools, and your Institutional Engagement Index. This index represents the degree to which your students do more or less than expected in terms of their engagement in the five areas of effective educational practice after adjusting for the types of students that attend your school and various institutional characteristics.

NSSE and the benchmarks of effective educational practice provide an instructive way to look at and talk about teaching and learning. Thus, they are intended to help stimulate conversations on campus and help determine whether student behavior and institutional practices are headed in the right direction.

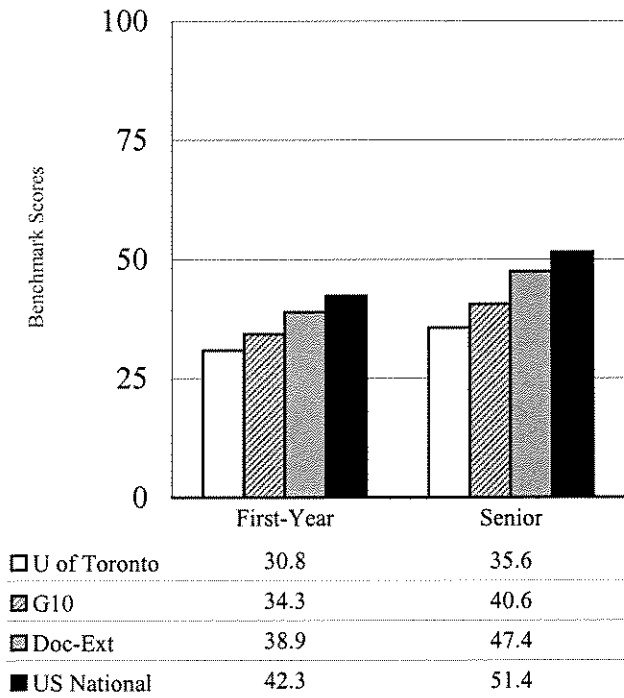
## Level of Academic Challenge





### 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.

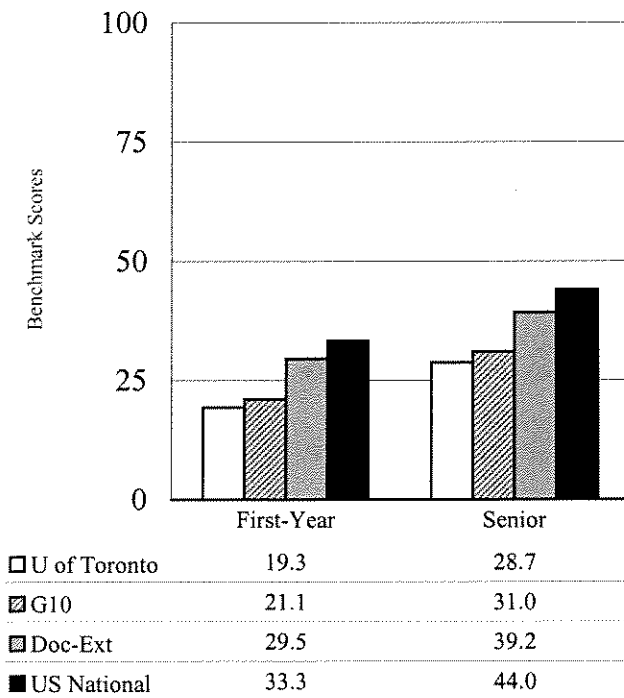


**Active and Collaborative Learning Survey Items:**

- 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

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.



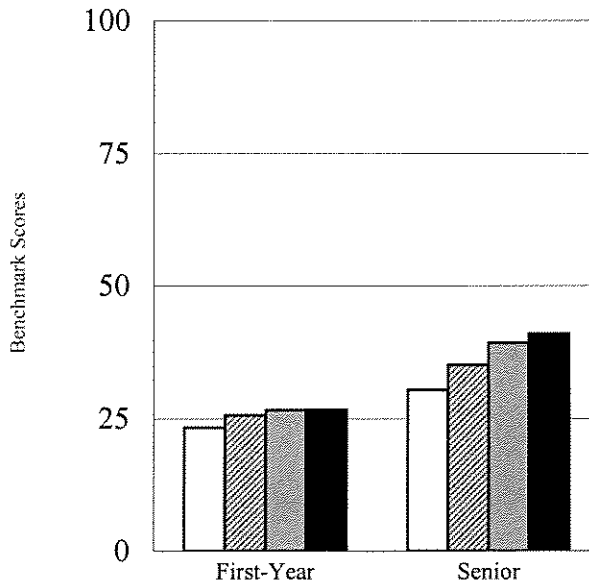
**Student-Faculty Interaction Survey Items:**

- 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 Educational Experiences

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



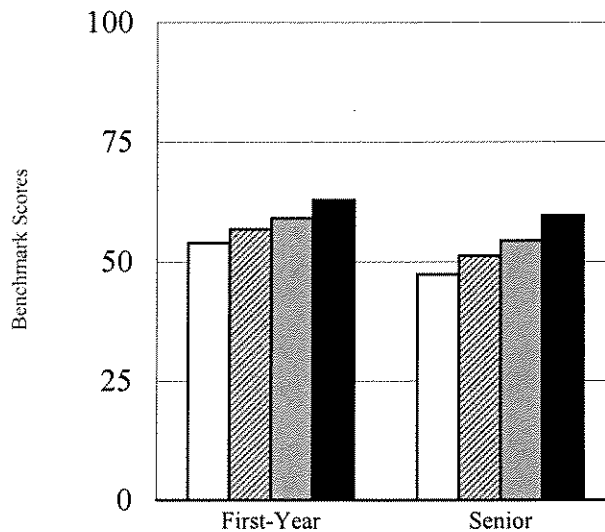
□ U of Toronto	23.3	30.4
▨ G10	25.7	35.1
▩ Doc-Ext	26.6	39.3
■ US National	26.7	40.9

**Enriching Educational Experiences**  
**Survey Items:**

- 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-designed 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

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



□ U of Toronto	53.9	47.3
▨ G10	56.8	51.2
▩ Doc-Ext	59.0	54.4
■ US National	62.8	59.7

**Supportive Campus Environment**  
**Survey 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



First-Year				
Benchmark	U of Toronto Benchmark Score	Comparison Group Statistics		
			Doc-Ext	US National
Level of Academic Challenge	52.5	Benchmark Score	52.1	53.6
		Score Difference	0.4	-1.0
		Standard Deviation	3.1	4.0
		Standard Score	0.1	-0.3
Active and Collaborative Learning	30.8	Benchmark Score	38.9	42.3
		Score Difference	-8.1	-11.5
		Standard Deviation	3.3	4.8
		Standard Score	-2.4	-2.4
Student-Faculty Interaction	19.3	Benchmark Score	29.5	33.3
		Score Difference	-10.2	-14.0
		Standard Deviation	2.4	4.9
		Standard Score	-4.3	-2.9
Enriching Educational Experiences	23.3	Benchmark Score	26.6	26.7
		Score Difference	-3.4	-3.4
		Standard Deviation	3.1	4.1
		Standard Score	-1.1	-0.8
Supportive Campus Environment	53.9	Benchmark Score	59.0	62.8
		Score Difference	-5.2	-9.0
		Standard Deviation	3.7	5.2
		Standard Score	-1.4	-1.7
Number of Institutions			42	458

Senior				
Benchmark	U of Toronto Benchmark Score	Comparison Group Statistics		
			Doc-Ext	US National
Level of Academic Challenge	54.7	Benchmark Score	55.5	57.6
		Score Difference	-0.9	-2.9
		Standard Deviation	2.3	3.8
		Standard Score	-0.4	-0.8
Active and Collaborative Learning	35.6	Benchmark Score	47.4	51.4
		Score Difference	-11.8	-15.8
		Standard Deviation	2.6	4.3
		Standard Score	-4.5	-3.6
Student-Faculty Interaction	28.7	Benchmark Score	39.2	44.0
		Score Difference	-10.5	-15.3
		Standard Deviation	3.5	6.9
		Standard Score	-3.0	-2.2
Enriching Educational Experiences	30.4	Benchmark Score	39.3	40.9
		Score Difference	-8.8	-10.5
		Standard Deviation	4.8	7.9
		Standard Score	-1.8	-1.3
Supportive Campus Environment	47.3	Benchmark Score	54.4	59.7
		Score Difference	-7.0	-12.4
		Standard Deviation	4.2	5.5
		Standard Score	-1.7	-2.2
Number of Institutions			42	459

**Explanation of Statistics**

**Benchmark Score:** The arithmetic average (mean) of the corresponding items is calculated for each student after each item is re-scaled to range from 0 to 100. Each benchmark is the weighted mean of students' scores at your institution. Each comparison group benchmark score is the mean of all institutional benchmark scores within the group.

**Score Difference:** The result of subtracting the comparison group score (Carnegie Classification or national) from your institution's score on each benchmark.

**Standard Deviation:** The average amount each institution's benchmark score deviates from the mean of all benchmark scores in the comparison group. The greater the dispersion of scores the larger the standard deviation.

**Standard Score (SS):** In statistical terms, this is a z score, the standardized magnitude of the difference between your school's benchmark score and the mean of the comparison group. It is calculated by dividing the score difference by the standard deviation of the distribution of scores for the comparison group.

Assuming the group means are normally distributed, a SS of 0.5 refers to a benchmark score that is greater than 69% of all comparison group schools, and 1.0 is greater than 84%. Likewise, a negative SS of -0.5 corresponds to a score that is better than 31% of the comparison group, and a -1.0 corresponds to an institution score better than only 16% of the comparison group. A SS of zero indicates that the institution and comparison group benchmark scores are equal, and that the institution's score is higher than roughly 50% of the other schools in the group. These values are illustrated in the table and chart at the bottom of page 8 of this report.

Also note the sign of the SS. A positive sign means that your institution's score was greater than the comparison group average, thus showing an affirmative result for the institution. A negative sign indicates the institution lags behind, suggesting that the student behavior or institutional practice represented by the benchmark may warrant attention.



These tables present the range of institutional scores by decile for the five benchmarks of effective educational practice for both first-year and senior students. Deciles are percentile scores that divide the range of benchmark scores into ten equal groups. A percentile is the point in a distribution at or below which a given percentage of institutional benchmark scores fall. For example, the 60th percentile represents the point at or below which 60 percent of the institutional benchmark scores fall for the respective comparison group. Deciles are listed for both the NSSE national results and for each of the Carnegie Classifications. To help you gauge your institution's performance relative to the comparison groups, the shaded areas on the national and Carnegie Classification tables indicate the deciles that are less than or equal to your benchmark score. For example, if your benchmark score on Academic Challenge for first-year students is 56.1, then your institution falls within the 70th and 80th percentile range on the national table, and between the 80th and 90th percentiles on the Doc-Extensive table.

	First-Year											Senior										
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
<b>US National</b>																						
Level of Academic Challenge	43.0	48.5	50.0	51.3	52.4	53.3	54.2	55.5	56.8	58.8	66.7	46.1	53.3	54.5	55.2	56.3	57.0	58.2	59.3	60.6	62.5	74.6
Active and Collaborative Learning	31.1	36.5	37.9	39.5	40.7	41.9	43.4	44.6	46.1	48.6	65.3	40.2	46.4	47.8	49.2	50.2	51.0	52.3	53.8	54.9	57.1	68.3
Student-Faculty Interaction	23.5	27.6	29.2	30.6	31.6	32.7	34.0	35.4	36.9	38.8	54.7	28.5	36.1	37.8	39.6	41.2	43.0	45.0	47.1	50.3	54.4	68.6
Enriching Educational Experiences	17.8	21.9	23.2	24.2	25.1	26.4	27.5	28.7	30.1	32.3	41.4	24.6	31.5	34.2	36.1	37.8	39.7	41.6	44.6	48.0	52.1	66.1
Supportive Campus Environment	48.7	55.7	58.1	59.7	61.5	63.0	64.2	65.5	67.2	69.4	80.4	46.0	52.7	55.0	56.5	57.9	59.1	60.8	62.8	64.4	66.8	84.5
<b>Doc-Extensive</b>																						
Level of Academic Challenge	47.7	48.8	49.4	49.5	50.7	51.3	52.1	53.7	54.4	57.9	59.7	52.1	52.9	53.4	53.9	54.4	55.4	56.0	56.6	57.2	59.4	60.7
Active and Collaborative Learning	32.3	35.6	36.3	36.9	37.2	38.1	39.5	40.1	41.5	43.7	49.3	42.4	44.1	45.2	46.0	46.6	47.0	47.8	48.8	49.7	51.6	52.5
Student-Faculty Interaction	25.5	26.6	27.6	28.0	28.3	28.8	30.0	30.8	31.7	32.7	36.7	32.1	34.7	36.2	37.0	37.8	39.0	40.2	41.3	42.1	43.9	47.9
Enriching Educational Experiences	20.7	22.9	23.6	24.3	26.3	26.8	27.3	28.4	29.4	29.8	34.7	31.0	33.0	35.6	36.5	38.1	38.5	40.2	41.1	42.8	45.1	55.9
Supportive Campus Environment	52.9	54.7	56.5	57.4	57.6	58.8	59.5	59.9	60.8	63.6	73.4	47.9	49.4	51.0	52.2	53.0	53.8	54.5	55.9	56.9	58.6	69.7
<b>Doc-Intensive</b>																						
Level of Academic Challenge	47.2	48.4	49.1	49.8	51.1	51.6	53.0	54.3	56.0	57.3	59.0	49.4	53.0	53.7	54.4	55.0	55.5	56.6	57.0	58.4	59.1	63.4
Active and Collaborative Learning	31.1	35.1	36.8	37.5	38.6	39.2	40.4	41.8	43.4	45.1	48.2	40.4	42.5	46.1	47.4	48.3	49.4	50.3	51.4	52.4	54.0	55.3
Student-Faculty Interaction	23.9	25.2	26.9	28.1	29.3	30.3	31.1	32.5	33.8	35.2	38.1	30.2	32.1	35.2	36.4	37.5	38.6	39.8	41.6	42.9	47.5	51.7
Enriching Educational Experiences	18.6	21.8	23.1	23.9	24.4	25.0	25.8	26.6	28.6	31.1	34.8	26.1	30.0	32.2	34.6	35.6	36.4	37.2	39.7	42.1	46.2	54.7
Supportive Campus Environment	50.0	53.8	55.2	55.8	57.6	58.1	60.1	62.3	63.6	64.5	67.8	47.6	50.0	51.5	52.3	53.6	54.6	55.7	57.2	58.9	60.8	69.0
<b>Master's I &amp; II</b>																						
Level of Academic Challenge	43.0	47.9	49.4	50.8	51.5	52.6	53.4	54.4	55.7	57.6	64.0	48.7	53.0	54.2	55.0	55.9	56.7	57.2	58.5	59.5	61.0	65.7
Active and Collaborative Learning	31.2	36.3	37.7	39.0	40.3	41.4	42.3	43.8	44.9	47.1	55.2	40.2	47.2	48.3	49.5	50.2	50.8	51.7	53.2	54.5	56.2	62.2
Student-Faculty Interaction	23.5	27.2	29.1	30.1	31.2	32.3	33.4	34.6	35.8	37.3	41.0	28.5	36.0	37.9	39.3	40.5	42.2	44.0	45.5	46.9	49.6	55.8
Enriching Educational Experiences	18.6	21.6	23.0	23.7	24.5	25.3	26.3	27.6	28.9	30.4	36.0	24.6	30.9	33.0	34.7	36.3	37.8	39.3	41.4	44.7	48.2	57.4
Supportive Campus Environment	48.7	55.8	58.1	59.7	60.8	62.6	63.7	65.0	66.0	67.8	74.9	48.2	54.4	56.0	56.9	57.8	58.9	59.9	62.1	63.3	65.1	74.9
<b>Bac-Liberal Arts</b>																						
Level of Academic Challenge	50.4	52.7	54.7	55.5	56.7	57.4	58.6	59.6	61.9	62.9	66.7	46.1	56.0	57.9	59.0	60.3	60.7	62.2	63.0	65.3	67.3	74.6
Active and Collaborative Learning	39.1	41.0	41.7	42.5	43.9	45.0	46.3	47.6	48.4	49.4	54.0	45.7	48.9	50.2	52.1	53.1	54.0	54.5	55.4	56.1	58.3	66.8
Student-Faculty Interaction	28.5	32.0	32.9	34.6	35.6	36.8	37.5	38.4	40.7	43.0	54.7	37.2	41.7	48.0	50.2	51.8	52.8	54.7	55.5	56.5	59.0	68.6
Enriching Educational Experiences	24.2	26.2	27.7	28.7	29.6	30.3	31.4	32.3	33.2	33.9	40.9	33.5	40.6	46.0	48.1	49.8	51.3	52.9	54.7	57.6	59.7	66.1
Supportive Campus Environment	52.4	60.7	63.0	64.2	65.4	66.6	67.6	68.8	71.0	71.9	80.4	52.7	56.3	59.5	60.6	61.8	62.9	63.9	65.9	67.4	69.2	76.7
<b>Bac-General Colleges</b>																						
Level of Academic Challenge	45.4	48.6	51.4	52.3	52.7	53.2	54.1	54.9	55.5	56.8	59.2	49.4	53.6	54.7	55.6	56.7	58.1	58.6	59.8	61.2	62.4	65.1
Active and Collaborative Learning	35.8	37.6	39.5	41.0	43.1	43.5	45.1	46.9	49.8	50.9	58.6	41.6	47.8	48.8	50.5	51.2	52.5	54.8	56.2	58.4	59.6	68.3
Student-Faculty Interaction	26.3	29.2	31.3	32.4	33.6	34.1	35.5	36.9	38.6	43.4	50.7	34.2	37.3	40.7	41.6	43.5	44.9	46.4	48.0	52.1	53.7	57.2
Enriching Educational Experiences	17.8	20.8	22.2	23.7	24.7	26.6	27.3	28.6	30.2	32.3	37.7	27.0	33.0	35.9	37.6	39.3	40.5	42.2	43.7	45.5	49.5	54.9
Supportive Campus Environment	52.6	58.6	62.2	63.2	64.2	64.9	66.0	67.3	67.9	69.0	74.2	53.0	55.8	57.4	58.7	60.8	63.4	64.5	65.4	66.7	68.1	71.8



This report represents the degree to which your students engage more or less than *expected* in the five areas of effective educational practice described in the *NSSE 2004 Annual Report*. The scores are statistically adjusted for the types of students that attend your school and other institutional characteristics.<sup>1</sup> Thus, the Institutional Engagement Index provides an alternative way to view institutional performance.

The report answers three main questions:

- 1) If your actual benchmark scores were statistically adjusted for the types of students at your school and other institutional characteristics, what would happen to your benchmark scores?
- 2) Is your institution doing better or worse than expected given your student and institutional characteristics?
- 3) How does the difference between your actual and predicted benchmark scores compare to other NSSE colleges and universities?

Benchmark	First-Year				Senior			
	Actual	Predicted <sup>2</sup>	Residual	Standardized Residual <sup>3</sup>	Actual	Predicted <sup>2</sup>	Residual	Standardized Residual <sup>3</sup>
Level of Academic Challenge	52.5	52.3	0.2	0.1	54.7	56.0	-1.3	-0.5
Active and Collaborative Learning	30.8	36.1	-5.2	-1.5	35.6	43.8	-8.2	-2.6
Student-Faculty Interaction	19.3	24.0	-4.7	-1.4	28.7	31.8	-3.1	-0.8
Enriching Educational Experiences	23.3	26.4	-3.1	-1.1	30.4	35.6	-5.2	-1.3
Supportive Campus Environment	53.9	57.3	-3.4	-0.9	47.3	50.9	-3.6	-0.9

The first column “Actual” highlights your institution’s first-year and senior actual benchmark scores, which correspond to the numbers reported in the Institutional Benchmark Report.

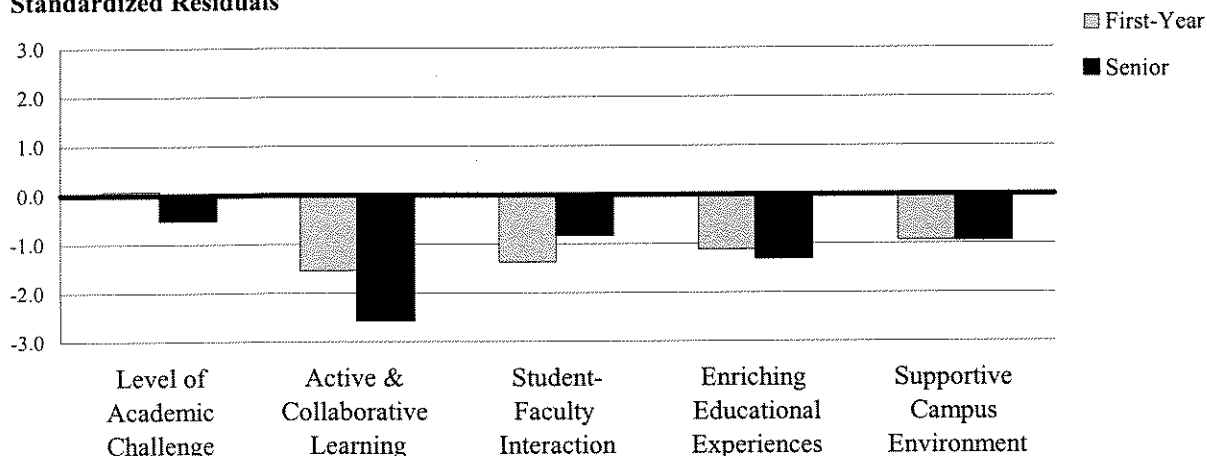
The second column “Predicted” represents what your students are predicted or expected to do across this range of important activities, given their background characteristics and selected institutional information.<sup>2</sup>

The third column “Residual” is the difference between the actual and predicted scores. A positive score indicates that students are more engaged in the respective educational practice (and likely benefiting more) *than expected*. A negative score indicates that students are doing less than expected in these areas of effective educational practice.

The last column is a standardized residual (SR), an estimate of the degree to which your institution exceeded or fell short of its predicted score on each benchmark relative to all other NSSE institutions. It expresses the residual score in standard deviation units. When your school’s actual benchmark score is equal to the predicted score both the residual score and the SR are equal to zero. A large, positive SR indicates that your school exceeded its predicted score by a larger margin than most other schools.<sup>3</sup>

The chart below highlights the value of your institution’s standardized residuals for each benchmark.

Standardized Residuals



## Notes to NSSE 2004 Institutional Engagement Index

The information in these notes will help in understanding the Institutional Engagement Index.

- <sup>1</sup> Supporting materials related to the Institutional Engagement Index, including the adjusted  $R^2$  and regression coefficients, are available on NSSE's website at [www.iub.edu/~nsse](http://www.iub.edu/~nsse).
- <sup>2</sup> The following student and institutional characteristics were included in an ordinary least squares regression model to produce the predicted benchmark scores: (a) public/private institutional control, (b) admissions selectivity rating from *Barron's Profiles of American Colleges*, (c) Carnegie Classification (d) undergraduate enrollment, (e) level of urbanization, (f) proportion full-time, (g) proportion female, (h) proportion of different races/ethnicities, (i) proportion of different student-reported major fields, (j) mean student-reported age and, (k) proportion of students reporting on-campus residence. Unless noted otherwise, institutional and student characteristics were obtained from IPEDS data, the most complete database available. These student and institutional characteristics were included in the regression model since they are not easily changed.
- <sup>3</sup> Statistically speaking, the standardized residual is known as the studentized deleted residual or externally studentized residual. To understand how your institution's residuals compare to other NSSE institutions, refer to the table and chart below that applies to both the benchmark standard scores (page 5) and the standardized residual scores.

### Understanding Standard Scores

A standard score of 1.0 indicates a score that is greater than approximately 84 percent of all institutions' scores; a standard score of .5 indicates the score is greater than about 69 percent of all institutions' scores. In contrast, a negative standard score of -.5 indicates the score exceeds about 31 percent of all NSSE institutions, and a standard score of -1.0 indicates the score is greater than only 16 percent of the scores of all other NSSE institutions.

