

# Queen's University

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## Multi-Year Benchmark Report

August 2011

## Interpreting the Multi-Year Benchmark Report

For institutions that have participated in multiple NSSE administrations, this *Multi-Year Benchmark Report* presents comparable benchmark scores by year so that patterns of change or stability are discernible. It also provides statistics such as *number of respondents*, *standard deviation*, and *standard error* so that shorthand mean comparison tests can be calculated.

Questions that might be answered with this report include, “How stable was the level of student-faculty interaction over the years?” or “Given the implementation of initiative X three years ago, did the level of active and collaborative learning increase?”

This report has three main parts: (a) a table of *data quality indicators* (p. 3), which provides a quick reference to important statistics for each year’s administration, (b) *multi-year charts*, and (c) *detailed statistics*. Key terms and features of (b) and (c) are illustrated below.

For more information and recommendations for analyzing past and present NSSE data for trends or stability, consult the *Multi-Year Data Analysis Guide*. [nsse.iub.edu/pdf/MYDAG.pdf](http://nsse.iub.edu/pdf/MYDAG.pdf)

### Key Terms and Features in this Report

#### Y-Axis

Benchmarks are computed on a 0 to 100 scale, however nearly all institutional scores are between the y-axis values of 15 and 85.

#### Benchmark Score

The benchmark score is the weighted average of the students' scores, using only randomly sampled students (including those from census administrations) from each year's data.

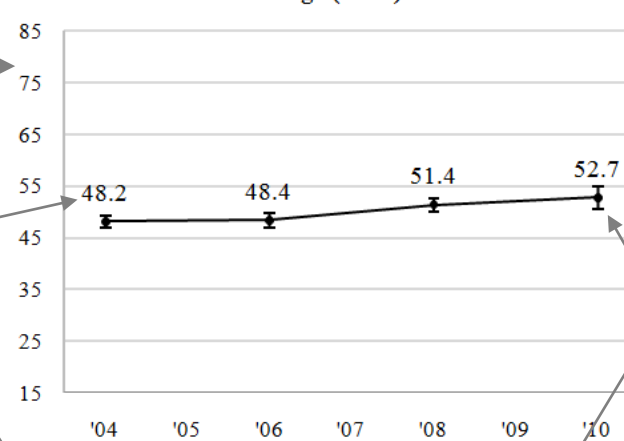
#### n

Unweighted number of respondents represented in the data.

#### SEM

*Standard error of the mean* is how much a score based on a sample may differ from the true population score. *SEM* is used to compute confidence intervals.

Level of Academic Challenge (LAC)



#### Error Bars/Confidence Intervals

Error bars around each benchmark score show the upper and lower bounds of the 95% confidence interval (mean  $\pm$  1.96 \* *SEM*), a range of values 95% likely to contain the true population score. "Upper" and "Lower" limits are also reported in the detailed statistics tables. Where confidence intervals do not overlap between years, a statistically significant difference ( $p < .05$ ) is likely to be present.

Multi-year detailed statistics appear on pages 5 & 7

	2004	2005	2006	2007	2008	2009	2010
<b>LAC</b>	<b>48.2</b>	<b>48.4</b>	<b>48.4</b>		<b>51.4</b>		<b>52.7</b>
n	405	303			307		155
SD	12.1	12.3			11.8		13.7
SEM	.60	.71			.67		1.10
Upper	49.4	49.8			52.7		54.9
Lower	47.0	47.0			50.1		50.6

#### Year

All NSSE administration years since 2004 are listed regardless of participation.

#### SD

*Standard deviation*, the average amount by which students' scores differ from the mean.

An important early step in conducting a multi-year analysis is to review the quality of your data in each year for both first-year and senior respondents. The precision of an institution's population estimates can vary from one year to the next. The values in this table were drawn from the *Respondent Characteristics* reports from each NSSE administration.

**Data Quality Indicators for Each NSSE Participation Year**

Year <sup>a</sup>	Mode <sup>b</sup>	Response Rate <sup>c</sup>		Sampling Error <sup>d</sup>		Number of Respondents <sup>e</sup>	
		FY	SR	FY	SR	FY	SR
2004	Web-only	49%	45%	4.0%	4.1%	519	470
2005							
2006	Web-only	46%	58%	1.9%	1.6%	1,490	1,537
2007							
2008	Web-only	47%	44%	1.8%	2.0%	1,605	1,358
2009							
2010							
2011	Web-only	37%	44%	2.0%	2.0%	1,461	1,359

<sup>a</sup> All NSSE administration years since 2004 are listed regardless of participation.

<sup>b</sup> Modes include *Paper* (students receive a paper survey and the option of completing a Web version), *Web* (students receive all correspondence by e-mail and complete the Web version), and *Web+* (students initially invited to participate via e-mail; a subgroup of nonrespondents receive paper surveys).

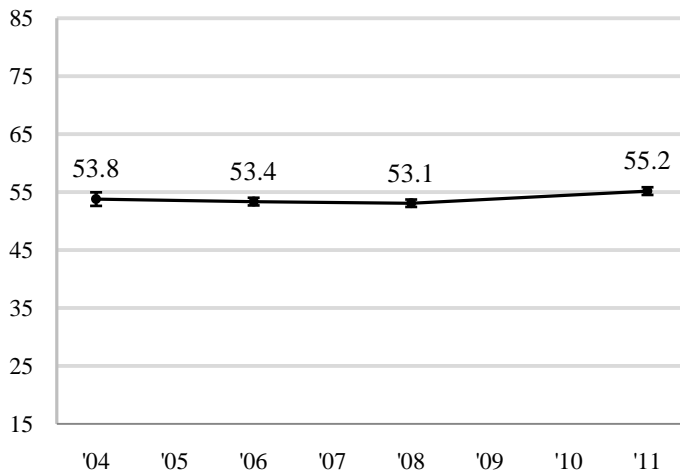
<sup>c</sup> Response rates (number of respondents divided by sample size) adjusted for ineligibility, nondeliverable mailing addresses, and students who were unavailable during the survey administration.

<sup>d</sup> Sampling error gauges the precision of results based on a sample survey. It is an estimate of how much survey item percentages for your respondents could differ from those of the entire population of students at your institution. Data with larger sampling errors (such as +/-10%) need not be dismissed out of hand, but any results using them should be interpreted more conservatively.

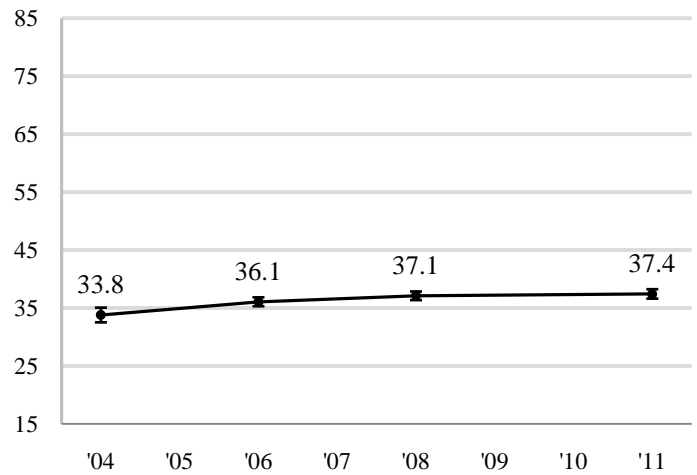
<sup>e</sup> This is the original count used to calculate response rates and sampling errors for each administration's *Respondent Characteristics* report. This number includes all randomly sampled students (including those from census administrations). In 2004 and 2005 it may also include targeted oversamples. For this reason, the counts for 2004 and 2005 may not match those given in the detailed statistics on pages 5 and 7.

**First-Year Students**

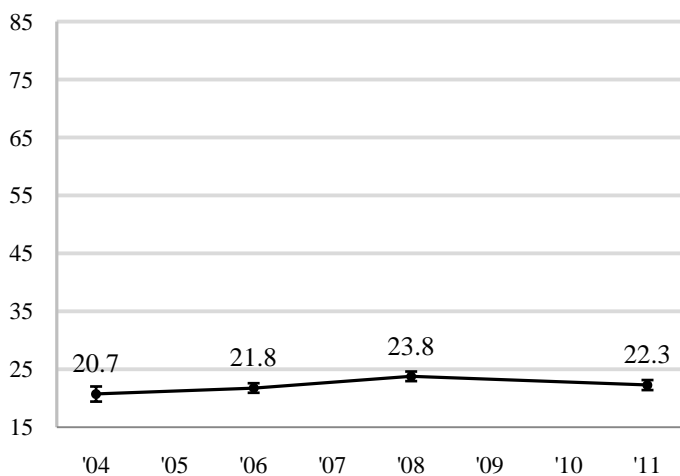
**Level of Academic Challenge (LAC)**



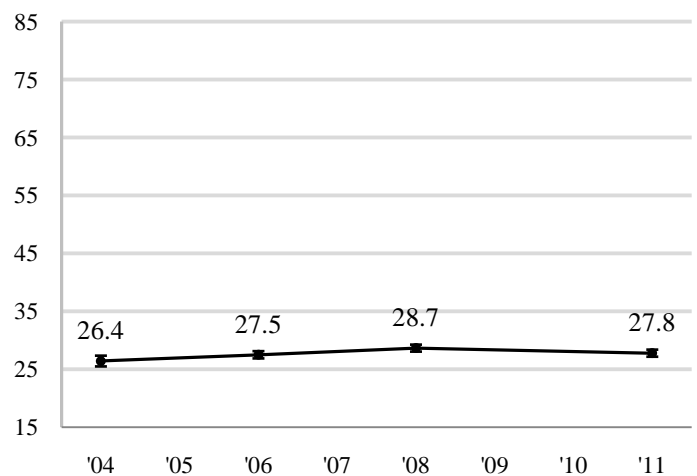
**Active and Collaborative Learning (ACL)**



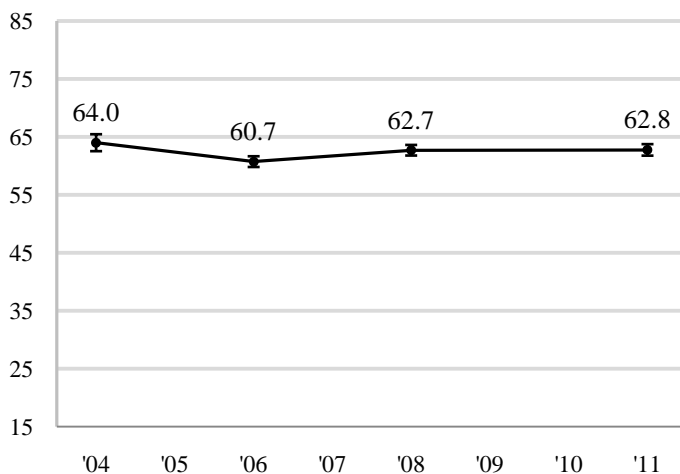
**Student-Faculty Interaction (SFI)**



**Enriching Educational Experiences (EEE)**



**Supportive Campus Environment (SCE)**



Notes:

- Benchmark scores are charted for all years of participation. See page 5 for detailed statistics.
- For more information and recommendations for analyzing multi-year NSSE data, consult the *Multi-Year Data Analysis Guide*. [nsse.iub.edu/pdf/MYDAG.pdf](http://nsse.iub.edu/pdf/MYDAG.pdf)

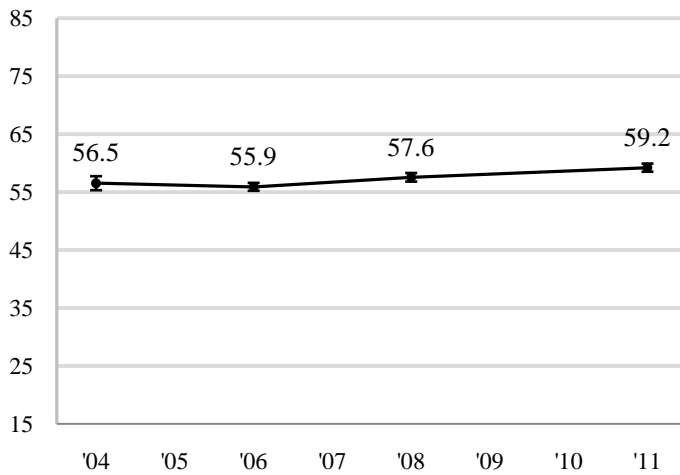
First-Year Students

		2004	2005	2006	2007	2008	2009	2010	2011
<b>Level of Academic Challenge</b>	<b>LAC</b>	<b>53.8</b>		<b>53.4</b>		<b>53.1</b>			<b>55.2</b>
	n	496		1402		1478			1357
	<i>SD</i>	13.3		12.7		12.5			12.5
	<i>SEM</i>	.60		.34		.33			.34
	Upper	55.0		54.0		53.7			55.8
	Lower	52.6		52.7		52.5			54.5
<b>Active and Collaborative Learning</b>	<b>ACL</b>	<b>33.8</b>		<b>36.1</b>		<b>37.1</b>			<b>37.4</b>
	n	496		1485		1582			1456
	<i>SD</i>	14.4		15.1		15.2			15.8
	<i>SEM</i>	.65		.39		.38			.41
	Upper	35.1		36.8		37.9			38.3
	Lower	32.5		35.3		36.4			36.6
<b>Student Faculty Interaction</b>	<b>SFI</b>	<b>20.7</b>		<b>21.8</b>		<b>23.8</b>			<b>22.3</b>
	n	496		1410		1476			1361
	<i>SD</i>	14.8		15.8		16.2			16.3
	<i>SEM</i>	.67		.42		.42			.44
	Upper	22.0		22.6		24.6			23.1
	Lower	19.4		21.0		23.0			21.4
<b>Enriching Educational Experiences</b>	<b>EEE</b>	<b>26.4</b>		<b>27.5</b>		<b>28.7</b>			<b>27.8</b>
	n	496		1378		1442			1337
	<i>SD</i>	10.6		11.9		11.7			11.4
	<i>SEM</i>	.47		.32		.31			.31
	Upper	27.4		28.1		29.3			28.4
	Lower	25.5		26.9		28.1			27.2
<b>Supportive Campus Environment</b>	<b>SCE</b>	<b>64.0</b>		<b>60.7</b>		<b>62.7</b>			<b>62.8</b>
	n	494		1360		1429			1325
	<i>SD</i>	16.6		17.4		17.6			18.4
	<i>SEM</i>	.75		.47		.47			.51
	Upper	65.5		61.7		63.6			63.8
	Lower	62.6		59.8		61.8			61.8

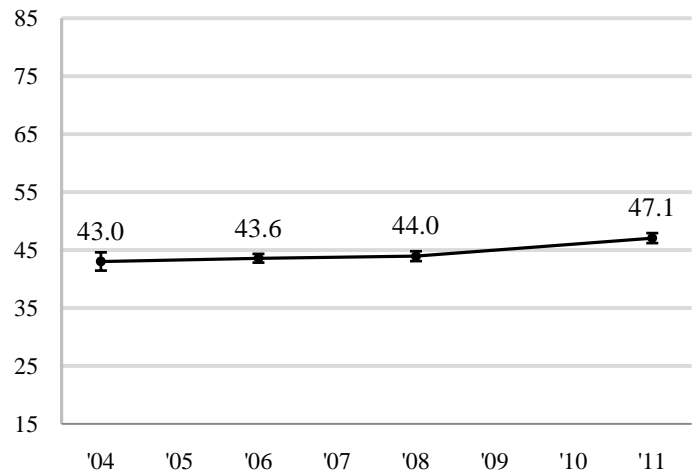
<sup>a</sup> n=number of respondents; *SD* =standard deviation; *SEM* =standard error of the mean; Upper/Lower=95% confidence interval limits

Seniors

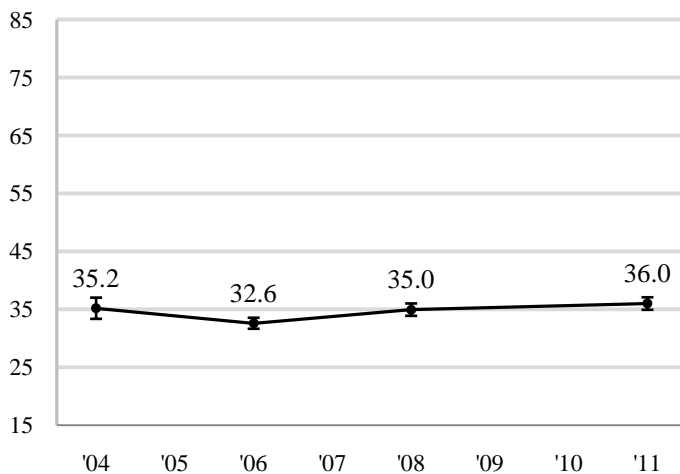
Level of Academic Challenge (LAC)



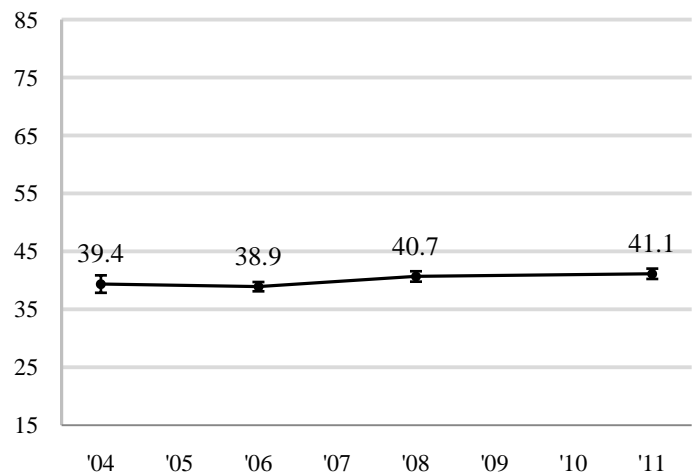
Active and Collaborative Learning (ACL)



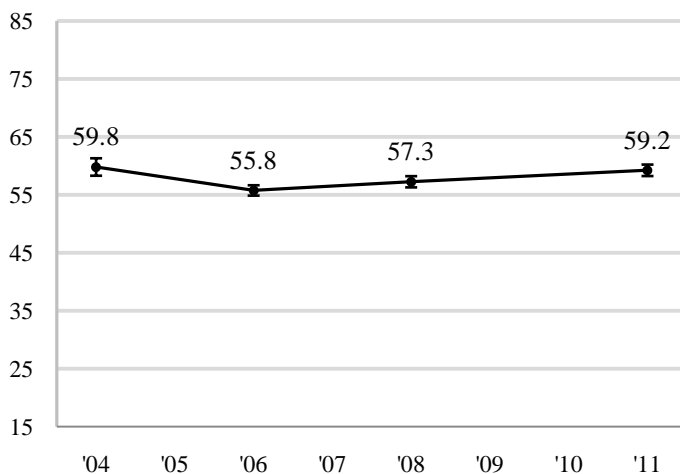
Student-Faculty Interaction (SFI)



Enriching Educational Experiences (EEE)



Supportive Campus Environment (SCE)



Notes:

- Benchmark scores are charted for all years of participation. See page 7 for detailed statistics.
- For more information and recommendations for analyzing multi-year NSSE data, consult the *Multi-Year Data Analysis Guide*. [nse.iub.edu/pdf/MYDAG.pdf](http://nse.iub.edu/pdf/MYDAG.pdf)

		Seniors							
		2004	2005	2006	2007	2008	2009	2010	2011
<b>Level of Academic Challenge</b>	<b>LAC</b>	<b>56.5</b>		<b>55.9</b>		<b>57.6</b>			<b>59.2</b>
	n	452		1489		1303			1304
	SD	13.1		13.4		13.6			12.9
	SEM	.62		.35		.38			.36
	Upper	57.8		56.6		58.3			59.9
	Lower	55.3		55.2		56.8			58.5
<b>Active and Collaborative Learning</b>	<b>ACL</b>	<b>43.0</b>		<b>43.6</b>		<b>44.0</b>			<b>47.1</b>
	n	452		1534		1327			1356
	SD	17.1		15.1		15.8			16.2
	SEM	.80		.39		.43			.44
	Upper	44.6		44.4		44.8			47.9
	Lower	41.5		42.8		43.1			46.2
<b>Student Faculty Interaction</b>	<b>SFI</b>	<b>35.2</b>		<b>32.6</b>		<b>35.0</b>			<b>36.0</b>
	n	452		1495		1308			1313
	SD	19.9		18.8		19.7			19.9
	SEM	.94		.49		.55			.55
	Upper	37.0		33.6		36.0			37.1
	Lower	33.4		31.7		33.9			34.9
<b>Enriching Educational Experiences</b>	<b>EEE</b>	<b>39.4</b>		<b>38.9</b>		<b>40.7</b>			<b>41.1</b>
	n	452		1474		1281			1289
	SD	16.3		15.7		16.4			16.4
	SEM	.77		.41		.46			.46
	Upper	40.9		39.7		41.6			42.0
	Lower	37.9		38.1		39.8			40.3
<b>Supportive Campus Environment</b>	<b>SCE</b>	<b>59.8</b>		<b>55.8</b>		<b>57.3</b>			<b>59.2</b>
	n	452		1462		1255			1270
	SD	16.3		17.4		17.5			18.0
	SEM	.77		.46		.49			.50
	Upper	61.3		56.7		58.2			60.2
	Lower	58.3		54.9		56.3			58.3

<sup>a</sup> n=number of respondents; SD=standard deviation; SEM=standard error of the mean; Upper/Lower=95% confidence interval limits