National Survey of Student Engagement

University of Maryland, Baltimore County

Multi-Year Benchmark Report

August 2009

Interpreting the Multi-Year Benchmark Report

For institutions that have participated in multiple NSSE administrations, this *Multi-Year Benchmark Report* presents recalculated and 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. This report is necessary because improvements and modifications have been made over time to NSSE survey items, the construction of benchmarks, and the production of institutional reports, making multi-year analysis of NSSE data more complex. Specifically, the following issues are relevant:

- All items in question 7 were rescaled in 2004, making it untenable to compare newer results on these items with those of 2003 and earlier. Therefore, it is not possible to compare the 2004-2009 Enriching Educational Experiences benchmark with prior years (2001-2003). An alternate version of the Student-Faculty Interaction benchmark – labeled 'SFC' – is also provided with the 'research with faculty' item removed, allowing this benchmark to be compared with prior years (2001-2003).

- In 2004 NSSE changed the way benchmarks were calculated, requiring that benchmarks prior to 2004 be recalculated to more accurately compare institutional performance across years.

- Scores from NSSE 2000 are not included because several significant changes were made to the survey instrument and benchmarks beginning in 2001, making year-to-year comparisons unsuitable.

- The samples used to develop institutional estimates have been refined in recent years, making direct comparisons of reported benchmarks over the years potentially less stable.

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 participation, (b) *multi-year charts,* and (c) *detailed statistics*. Key terms and features of (b) and (c) are described below using data from the fictional "NSSEville State University."

For more information and recommendations for analyzing NSSE data over time, consult the *Multi-Year Data Analysis Guide*: **www.nsse.iub.edu/pdf/NSSE Multi-Year Data Analysis Guide.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.
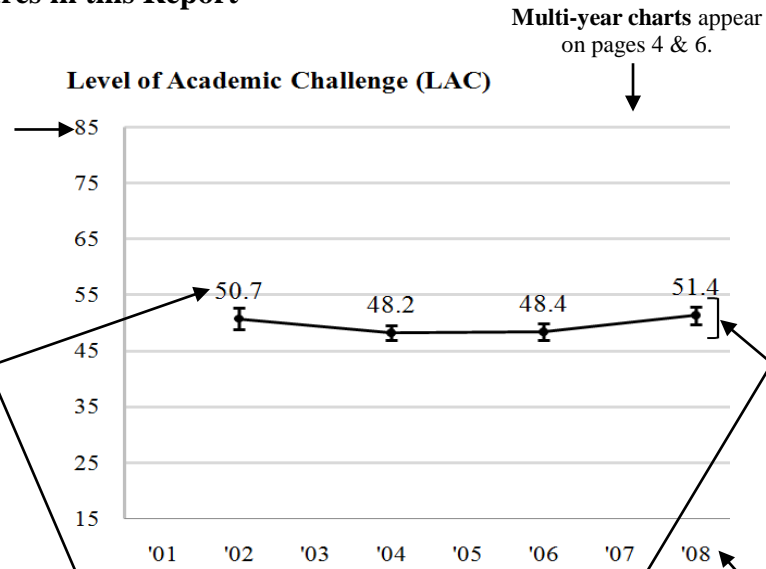
Benchmark Score
The benchmark score is the weighted average of the student-level scores, using only randomly sampled students from each year's data.

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.

Multi-year charts appear on pages 4 & 6.

Error Bars/Confidence Intervals
Error bars around each benchmark score show the upper and lower bounds of the 95% confidence interval (mean +/- 1.96 * *SEM*), a range of values 95% likely to contain the true population score. "Upper" and "Lower" limits are 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.

Level of Academic Challenge (LAC)

Year	Value
'02	50.7
'04	48.2
'06	48.4
'08	51.4

Multi-year detailed statistics appear on pages 5 & 7.

Year
All NSSE administration years are listed regardless of participation.

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

	2001	2002	2003	2004	2005	2006	2007	2008
LAC		50.7		48.2		48.4		51.4
n		179		405		303		307
SD		12.3		12.1		12.3		11.8
SEM		.92		.60		.71		.67
Upper		52.5		49.4		49.8		52.7
Lower		48.9		47.0		47.0		50.1

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Some NSSE administrations at an institution may yield more precise population estimates than others. The values in this table were drawn from the *Respondent Characteristics* reports for each NSSE administration. An important early step in conducting a multi-year analysis is to review the quality of your data for both first-year and senior respondents in each year.

Year[a]	Mode[b]	Response Rate[c]		Sampling Error[d]		Number of Respondents[e]	
		FY	SR	FY	SR	FY	SR
2001	Web	39%		5.5%	5.3%	254	255
2002							
2003							
2004	Web	41%	36%	3.2%	4.3%	540	328
2005	Web	36%	41%	3.7%	3.8%	453	390
2006							
2007							
2008	Web	27%	28%	4.3%	3.8%	386	497
2009	Web	33%	39%	3.6%	3.0%	497	670

[a] All NSSE administration years since 2001 are listed regardless of participation.

[b] 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).

[c] Response rates (number of respondents divided by sample size) were adjusted for ineligibility, nondeliverable mailing addresses, and students who were unavailable during the survey administration. Before 2003, response rates were not calculated separately by class so overall response rates are reported.

[d] Sampling error gauges the precision of estimates 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.

[e] 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. From 2001 to 2005 it may also include targeted oversamples. For this reason, the counts for 2001 to 2005 may not match those given in the detailed statistics on pages 5 and 7.

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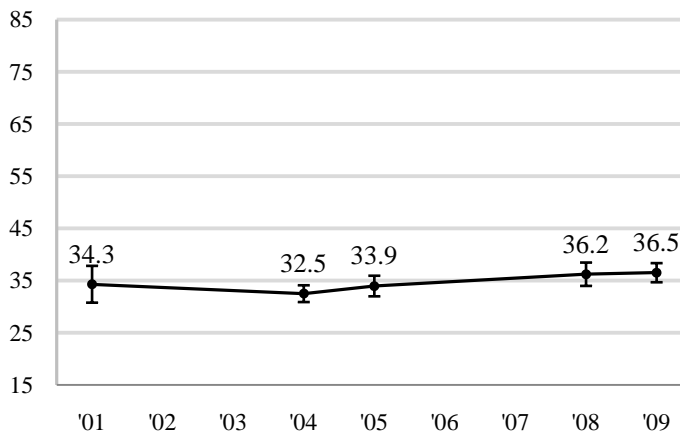
University of Maryland, Baltimore County

First-Year Students

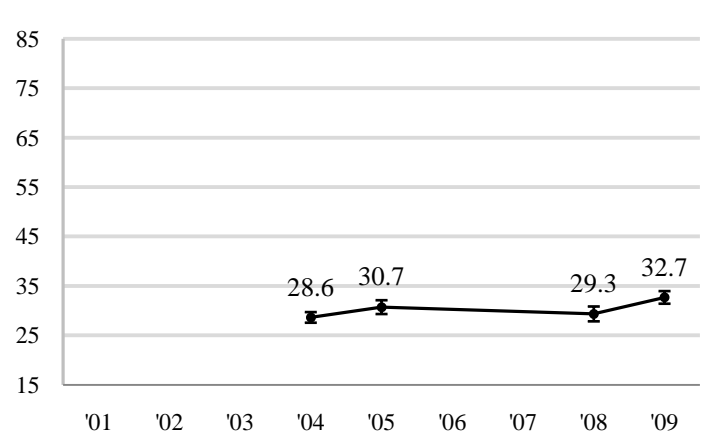**Level of Academic Challenge (LAC)**
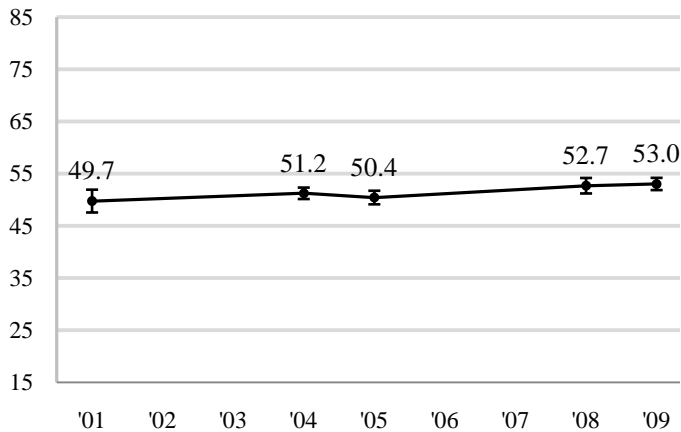
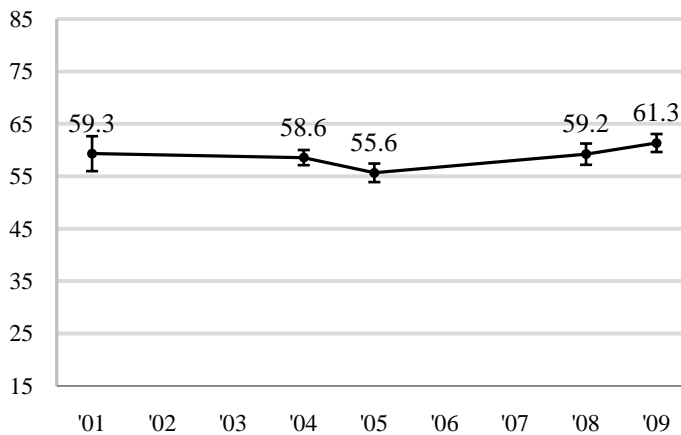**Active and Collaborative Learning (ACL)**
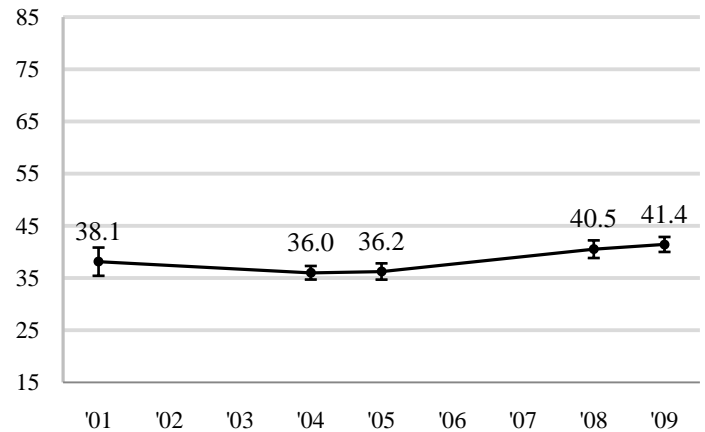
Student-Faculty Interaction (SFC)[b]

Enriching Educational Experiences (EEE)[c]

Supportive Campus Environment (SCE)

Notes:

a. Recalculated benchmark scores are charted for all years of participation since 2001. See page 5 for detailed statistics. For more information and recommendations for analyzing multi-year NSSE data, consult the *Multi-Year Data Analysis Guide*: www.nsse.iub.edu/pdf/NSSE Multi-Year Data Analysis Guide.pdf.

b. For institutions with 2001-2003 data, due to a change to the 'research with faculty' item in 2004, 'SFC' (a version of 'SFI' that does not include that item) is charted on this page. Statistics for both versions are provided on page 5.

c. 2001-2003 'EEE' scores are not provided because these scores are not comparable with those of later years; response options for several 'EEE' items were altered in 2004.

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First-Year Students

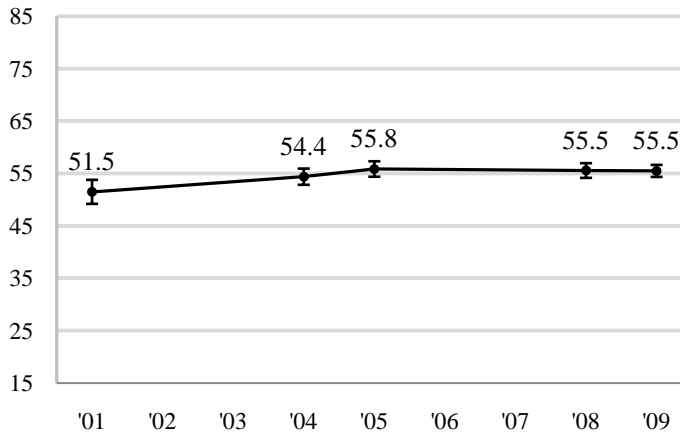|		*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Level of Academic Challenge	**LAC**	**49.7**			**51.2**	**50.4**			**52.7**	**53.0**
	n	126			514	420			346	465
	SD	12.5			12.7	13.6			14.1	12.9
	SEM	1.12			.56	.66			.76	.60
	Upper	51.9			52.3	51.7			54.2	54.2
	Lower	47.5			50.1	49.1			51.2	51.8
Active and Collaborative Learning	**ACL**	**38.1**			**36.0**	**36.2**			**40.5**	**41.4**
	n	126			516	452			370	497
	SD	15.5			15.1	16.9			16.6	16.3
	SEM	1.38			.66	.80			.86	.73
	Upper	40.8			37.3	37.8			42.2	42.8
	Lower	35.4			34.7	34.7			38.8	40.0
Student Faculty Interaction[b]	**SFC**	**34.3**			**32.5**	**33.9**			**36.2**	**36.5**
	n	126			514	430			353	471
	SD	20.2			18.6	20.9			21.5	20.3
	SEM	1.80			.82	1.01			1.14	.94
	Upper	37.8			34.1	35.9			38.4	38.3
	Lower	30.7			30.9	32.0			33.9	34.6
	SFI	-			**27.6**	**28.9**			**31.0**	**31.5**
	n	-			514	421			345	466
	SD	-			16.2	18.4			18.6	18.6
	SEM	-			.72	.89			1.00	.86
	Upper	-			29.0	30.7			33.0	33.2
	Lower	-			26.2	27.1			29.0	29.8
Enriching Educational Experiences[c]	**EEE**	-			**28.6**	**30.7**			**29.3**	**32.7**
	n	-			514	411			337	455
	SD	-			12.4	14.5			14.1	13.9
	SEM	-			.55	.71			.77	.65
	Upper	-			29.7	32.1			30.8	34.0
	Lower	-			27.6	29.3			27.8	31.4
Supportive Campus Environment	**SCE**	**59.3**			**58.6**	**55.6**			**59.2**	**61.3**
	n	126			514	400			333	451
	SD	19.1			16.8	18.0			18.9	18.6
	SEM	1.70			.74	.90			1.04	.88
	Upper	62.6			60.0	57.4			61.2	63.1
	Lower	56.0			57.1	53.9			57.2	59.6

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

[b] Due to a change to the 'research with faculty' item in 2004, statistics for 'SFC' (the alternate version of 'SFI' that does not include that item) are reported along with 'SFI' beginning with 2004.
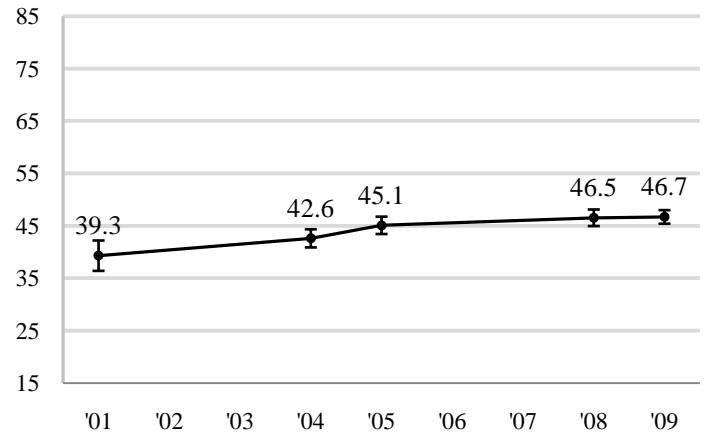
[c] 2001-2003 'EEE' scores are not provided because these scores are not comparable with those of later years. This is because response options for several of 'EEE' items were substantially altered in 2004.
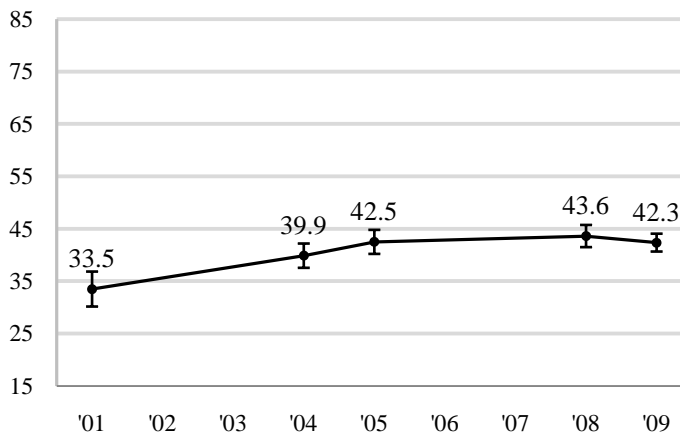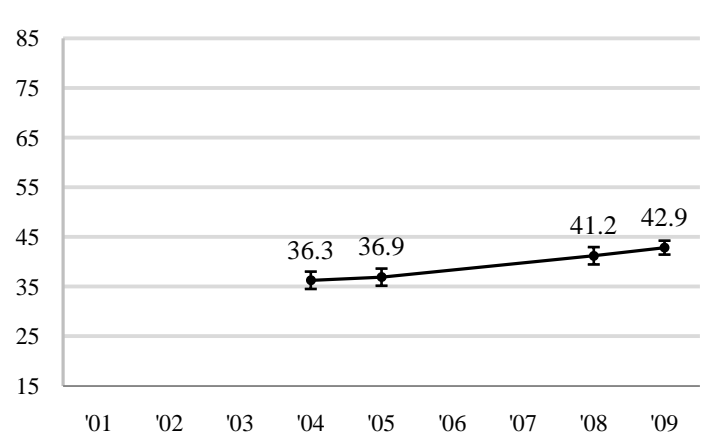
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NSSE 2009 Multi-Year Benchmark Report
Multi-Year Charts [a]

University of Maryland, Baltimore County

Seniors

Level of Academic Challenge (LAC)

51.5   54.4   55.8   55.5   55.5

Active and Collaborative Learning (ACL)

39.3   42.6   45.1   46.5   46.7

Student-Faculty Interaction (SFC)[b]

33.5   39.9   42.5   43.6   42.3

Enriching Educational Experiences (EEE)[c]

36.3   36.9   41.2   42.9

Supportive Campus Environment (SCE)

44.9   52.2   52.2   52.1   53.7

Notes:

a. Recalculated benchmark scores are charted for all years of participation since 2001. See page 7 for detailed statistics. For more information and recommendations for analyzing multi-year NSSE data, consult the *Multi-Year Data Analysis Guide*: www.nsse.iub.edu/pdf/NSSE Multi-Year Data Analysis Guide.pdf.

b. For institutions with 2001-2003 data, due to a change to the 'research with faculty' item in 2004, 'SFC' (a version of 'SFI' that does not include that item) is charted on this page. Statistics for both versions are provided on page 7.

c. 2001-2003 'EEE' scores are not provided because these scores are not comparable with those of later years; response options for several 'EEE' items were altered in 2004.

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NSSE 2009 Multi-Year Benchmark Report
Detailed Statistics [a]

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						Seniors				
		2001	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Level of Academic Challenge	**LAC**	**51.5**			**54.4**	**55.8**			**55.5**	**55.5**
	n	140			316	363			460	636
	SD	13.8			14.0	14.3			15.3	14.8
	SEM	1.17			.79	.75			.72	.59
	Upper	53.8			55.9	57.3			56.9	56.6
	Lower	49.2			52.8	54.4			54.1	54.3
Active and Collaborative Learning	**ACL**	**39.3**			**42.6**	**45.1**			**46.5**	**46.7**
	n	140			316	390			487	667
	SD	17.5			15.7	16.7			17.8	17.1
	SEM	1.48			.88	.85			.81	.66
	Upper	42.2			44.3	46.7			48.1	48.0
	Lower	36.4			40.9	43.4			44.9	45.4
Student Faculty Interaction[b]	**SFC**	**33.5**			**39.9**	**42.5**			**43.6**	**42.3**
	n	140			316	375			466	645
	SD	20.2			21.0	22.7			23.3	22.1
	SEM	1.70			1.18	1.17			1.08	.87
	Upper	36.8			42.2	44.8			45.7	44.0
	Lower	30.1			37.5	40.2			41.5	40.6
	SFI	-			**35.5**	**38.0**			**40.3**	**39.6**
	n	-			316	367			464	639
	SD	-			19.6	21.4			22.6	21.9
	SEM	-			1.10	1.12			1.05	.87
	Upper	-			37.7	40.2			42.4	41.3
	Lower	-			33.4	35.8			38.3	37.9
Enriching Educational Experiences[c]	**EEE**	-			**36.3**	**36.9**			**41.2**	**42.9**
	n	-			316	357			457	632
	SD	-			15.9	16.6			19.1	18.0
	SEM	-			.89	.88			.89	.72
	Upper	-			38.0	38.6			43.0	44.3
	Lower	-			34.5	35.2			39.5	41.4
Supportive Campus Environment	**SCE**	**44.9**			**52.2**	**52.2**			**52.1**	**53.7**
	n	140			315	353			454	628
	SD	19.5			19.5	19.7			20.6	19.6
	SEM	1.65			1.10	1.05			.97	.78
	Upper	48.2			54.3	54.3			54.0	55.2
	Lower	41.7			50.0	50.2			50.2	52.2

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

[b] Due to a change to the 'research with faculty' item in 2004, statistics for 'SFC' (the alternate version of 'SFI' that does not include that item) are reported along with 'SFI' beginning with 2004.

[c] 2001-2003 'EEE' scores are not provided because these scores are not comparable with those of later years. This is because response options for several of 'EEE' items were substantially altered in 2004.