**National Survey
of Student Engagement**

CUNY New York City College of Technology

Benchmark Comparisons

August 2009

National Survey of Student Engagement

Interpreting the Benchmark Comparisons Report

To focus discussions about the importance of student engagement and to guide institutional improvement efforts, NSSE created five Benchmarks of Effective Educational Practice: Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment. This Benchmark Comparisons Report compares the performance of your institution with your selected peers or consortium. In addition, page 9 provides two other comparisons between your school and (a) above-average institutions with benchmarks in the top 50% of all NSSE institutions and (b) high-performing institutions with benchmarks in the top 10% of all NSSE institutions. These displays allow you to determine if the engagement of your typical student differs in a statistically significant, meaningful way from the average student in these comparison groups. More detailed information about how benchmarks are created can be found on the NSSE Web site at **www.nsse.iub.edu/2009_Institutional_Report/.**

Class and Sample
Means are reported for first-year students and seniors. Institution-reported class levels are used. All randomly selected students are included in these analyses. Students in targeted or locally administered oversamples are not included.

Statistical Significance
Benchmarks with mean differences that are larger than would be expected by chance alone are noted with one, two, or three asterisks, denoting one of three significance levels ($p<.05$, $p< .01$, and $p<.001$). The smaller the significance level, the smaller the likelihood that the difference is due to chance. Please note that statistical significance does not guarantee that the result is substantive or important. Large sample sizes (as with the NSSE project) tend to produce more statistically significant results even though the magnitude of mean differences may be inconsequential. It is recommended to consult effect sizes to judge the practical meaning of the results.
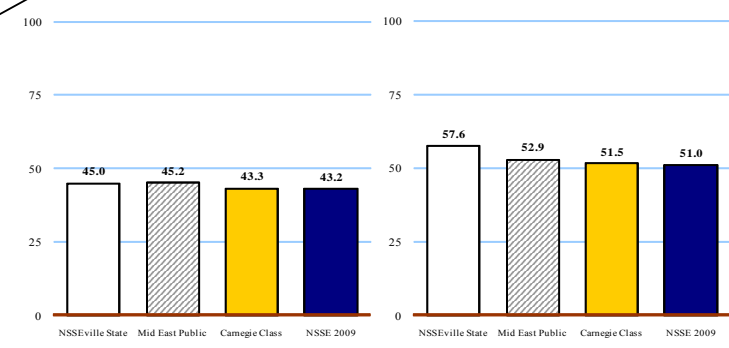
Effect Size[a]
Effect size indicates the practical significance of the mean difference. It is calculated by dividing the mean difference by the pooled standard deviation. In practice, an effect size of .2 is often considered small, .5 moderate, and .8 large. A positive sign indicates that your institution's mean was greater, thus showing an affirmative result for the institution. A negative sign indicates the institution lags behind the comparison group, suggesting that the student behavior or institutional practice represented by the item may warrant attention.

Active and Collaborative Learning (ACL)
Benchmark Comparisons

NSSEville State compared with:

Class	NSSEville State Mean [a]	Mid East Public Mean [a]	Sig [b]	Effect Size [c]	Carnegie Class Mean [a]	Sig [b]	Effect Size [c]	NSSE 2009 Mean [a]	Sig [b]	Effect Size [c]
First-Year	45.0	45.2		-.02	43.3		.10	43.2		.11
Senior	57.6	52.9	*	.27	51.5	**	.35	51.0	***	.38

First-Year

Senior

Mean
The mean is the *weighted* arithmetic average of the student level benchmark scores.

Bar Charts
A visual display of first-year and senior mean benchmark scores for your institution and your selected comparison or consortium groups.

Active and Collaborative Learning (ACL) Items

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.

- 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 (paid or voluntary)
- Participated in a community-based project (e.g., service learning) as part of a regular course
- Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

Benchmark Description & Survey Items
A description of the benchmark and the individual items used in its creation is provided.

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[a] See *Contextualizing NSSE Effect Sizes* at www.nsse.iub.edu/html/effect_size_guide.cfm for additional information.

Level of Academic Challenge (LAC)

Mean Comparisons

CUNY New York City College of Technology compared with:

Class	NYCCT Mean [a]	CSWC Mean [a]	Sig [b]	Effect Size [c]	CUNY System Mean [a]	Sig [b]	Effect Size [c]	NSSE 2009 Mean [a]	Sig [b]	Effect Size [c]
First-Year	51.7	53.6		-.14	54.0		-.15	53.7		-.14
Senior	58.4	56.7		.12	56.3		.14	57.0		.09

[a] Weighted by gender, enrollment status, and institutional size.
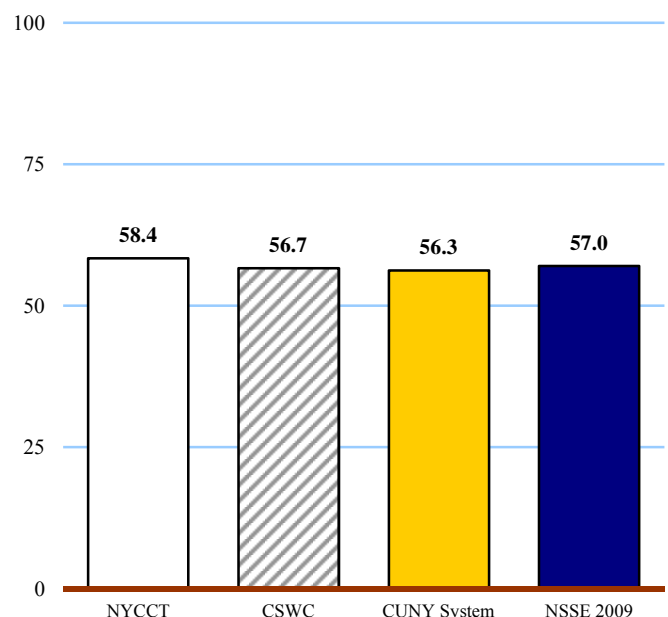
[b] * p<.05 ** p<.01 ***p<.001 (2-tailed).

[c] Mean difference divided by the pooled standard deviation.

First-Year
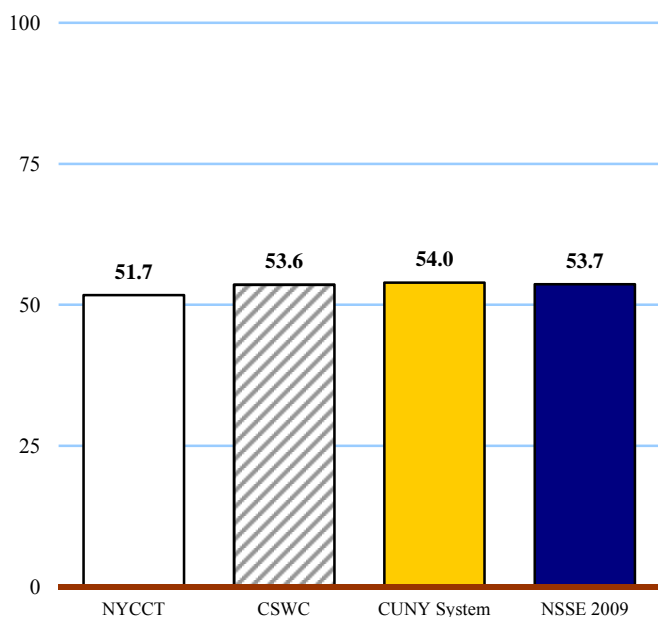
Senior

Level of Academic Challenge (LAC) Items

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.

Preparing for class (studying, reading, writing, doing homework or lab work, 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 emphasizes: **Analysis** of the basic elements of an idea, experience or theory
Coursework emphasizes: **Synthesis** and organizing of ideas, information, or experiences into new, more complex interpretations and relationships
Coursework emphasizes: **Making of judgments** about the value of information, arguments, or methods
Coursework emphasizes: **Applying** 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 emphasizes: Spending significant amount of time studying and on academic work.

National Survey of Student Engagement

Active and Collaborative Learning (ACL)

Mean Comparisons

CUNY New York City College of Technology compared with:

	NYCCT	CSWC			CUNY System			NSSE 2009		
Class	Mean [a]	Mean [a]	Sig [b]	Effect Size [c]	Mean [a]	Sig [b]	Effect Size [c]	Mean [a]	Sig [b]	Effect Size [c]
First-Year	40.1	42.4		-.13	40.3		-.01	43.2		-.18
Senior	53.0	50.3		.15	45.5	***	.44	51.0		.11

[a] Weighted by gender, enrollment status, and institutional size.

[b] * p<.05 ** p<.01 ***p<.001 (2-tailed).

[c] Mean difference divided by the pooled standard deviation.

First-Year
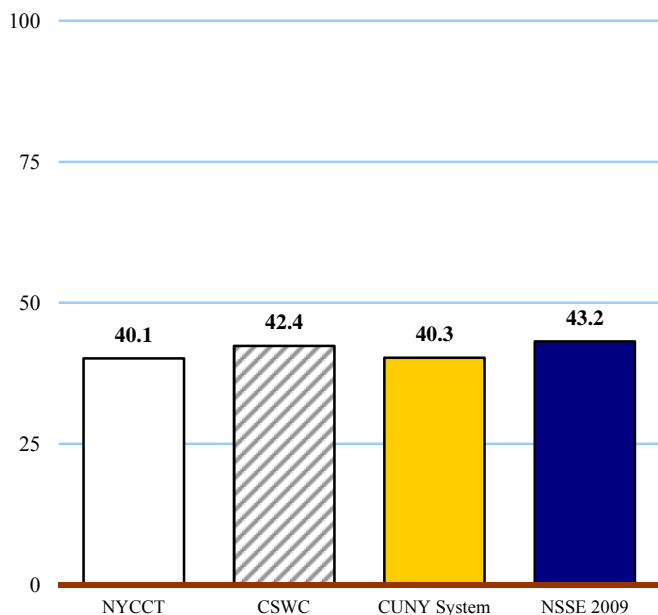
Senior

Active and Collaborative Learning (ACL) Items

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.

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 (paid or voluntary)
Participated in a community-based project (e.g., service learning) 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 (SFI)

Mean Comparisons

CUNY New York City College of Technology compared with:

Class	NYCCT Mean [a]	CSWC Mean [a]	CSWC Sig [b]	CSWC Effect Size [c]	CUNY System Mean [a]	CUNY System Sig [b]	CUNY System Effect Size [c]	NSSE 2009 Mean [a]	NSSE 2009 Sig [b]	NSSE 2009 Effect Size [c]
First-Year	28.2	34.3		-.33	32.2		-.21	34.7		-.35
Senior	42.4	40.7		.08	37.2	*	.25	42.0		.02

[a] Weighted by gender, enrollment status, and institutional size.

[b] * p<.05 ** p<.01 ***p<.001 (2-tailed).

[c] Mean difference divided by the pooled standard deviation.

First-Year
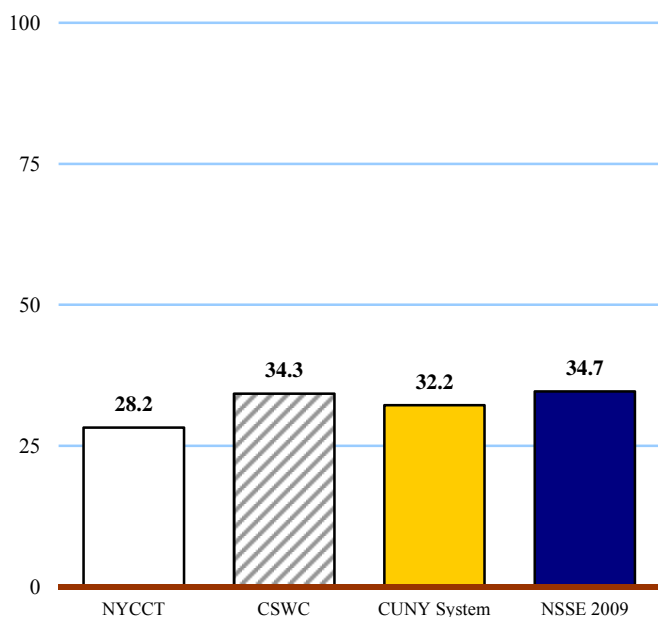
Senior
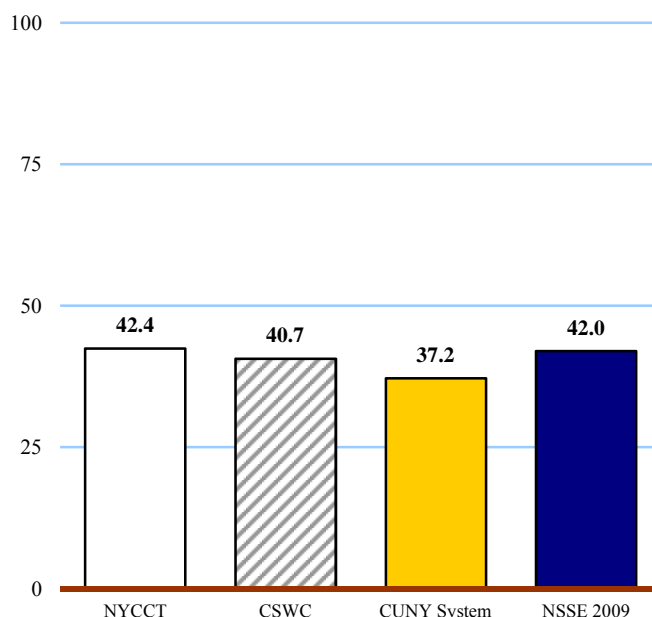
Student-Faculty Interaction (SFI) Items

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.

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 written or oral feedback from faculty on your academic performance
Worked on a research project with a faculty member outside of course or program requirements

Enriching Educational Experiences (EEE)

Mean Comparisons

CUNY New York City College of Technology compared with:

Class	NYCCT Mean [a]	CSWC Mean [a]	CSWC Sig [b]	CSWC Effect Size [c]	CUNY System Mean [a]	CUNY System Sig [b]	CUNY System Effect Size [c]	NSSE 2009 Mean [a]	NSSE 2009 Sig [b]	NSSE 2009 Effect Size [c]
First-Year	25.0	27.7		-.20	25.8		-.05	28.0		-.22
Senior	34.4	40.1	**	-.31	35.6		-.06	40.8	**	-.35

[a] Weighted by gender, enrollment status, and institutional size.

[b] * p<.05 ** p<.01 ***p<.001 (2-tailed).

[c] Mean difference divided by the pooled standard deviation.

First-Year
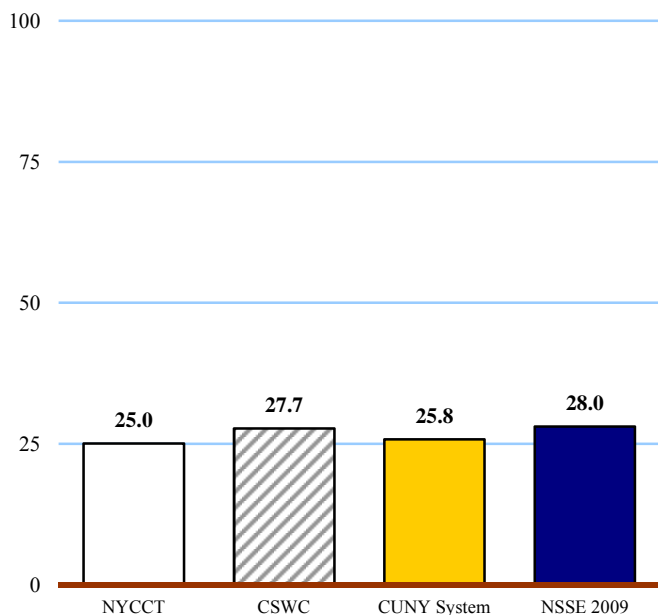
Senior
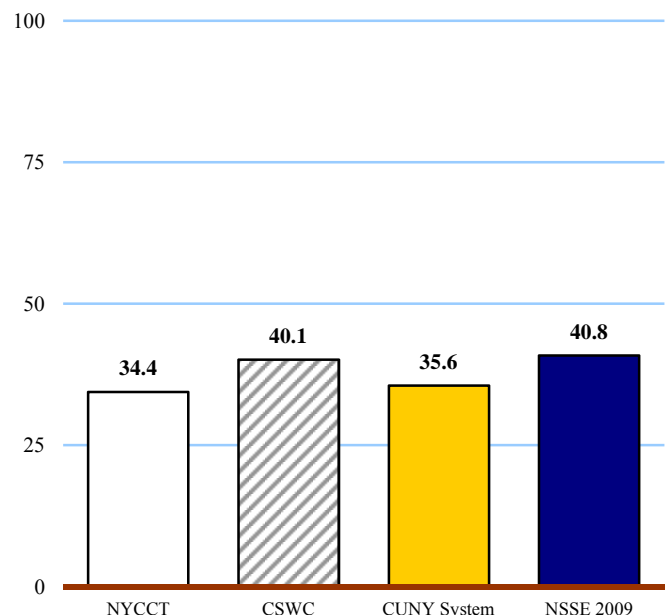
Enriching Educational Experiences (EEE) Items

Complementary learning opportunities enhance 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.

Participating in co-curricular activities (organizations, campus publications, student government, social fraternity or sorority, 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 (capstone course, senior project or thesis, comprehensive exam, etc.)
Serious conversations with students of different religious beliefs, political opinions, or personal values
Serious conversations with students of a different race or ethnicity than your own
Using electronic medium (e.g., listserv, chat group, Internet, instant messaging, etc.) 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 (SCE)

Mean Comparisons

CUNY New York City College of Technology compared with:

Class	NYCCT Mean [a]	CSWC Mean [a]	CSWC Sig [b]	CSWC Effect Size [c]	CUNY System Mean [a]	CUNY System Sig [b]	CUNY System Effect Size [c]	NSSE 2009 Mean [a]	NSSE 2009 Sig [b]	NSSE 2009 Effect Size [c]
First-Year	64.2	60.2		.21	56.6		.38	61.6		.14
Senior	55.6	56.3		-.03	52.3		.16	58.2		-.13

[a] Weighted by gender, enrollment status, and institutional size.

[b] * p<.05 ** p<.01 ***p<.001 (2-tailed).

[c] Mean difference divided by the pooled standard deviation.

First-Year
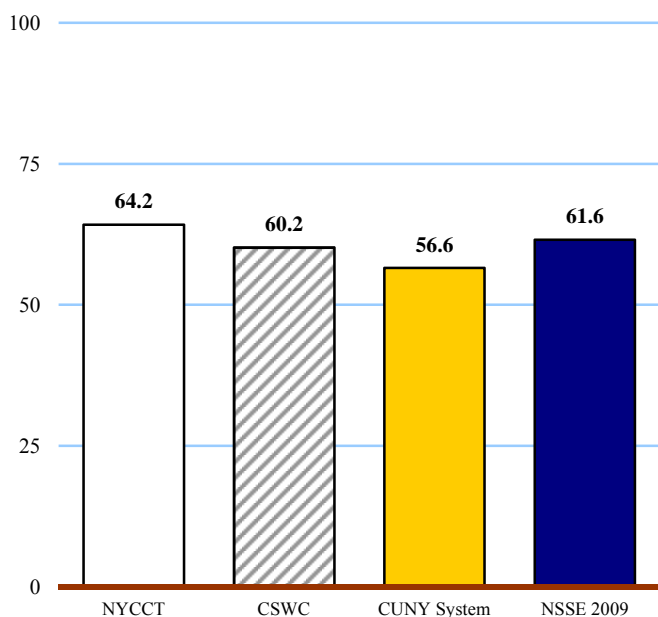
Senior
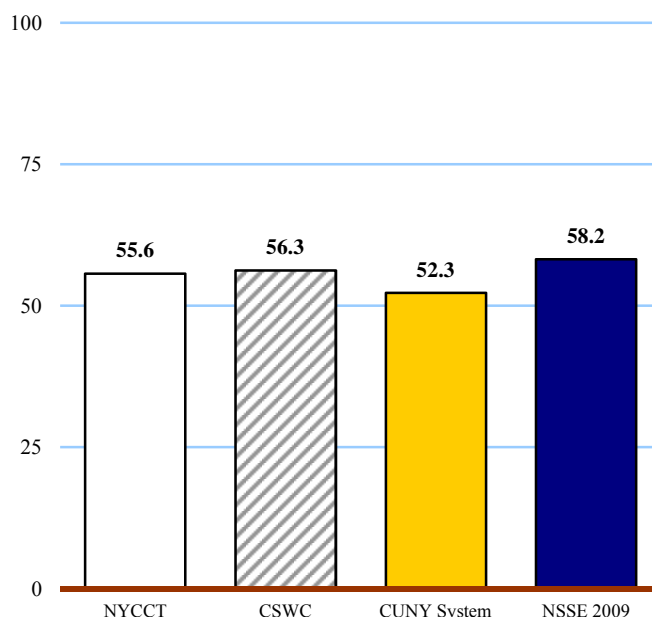
Supportive Campus Environment (SCE) Items

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.

- 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

Interpreting the Top 10% and Top 50% Comparisons

This section of the NSSE Benchmark Comparisons report allows you to estimate the performance of your average student in relation to the average student attending two different institutional peer groups identified by NSSE for their high levels of student engagement: (a) those with benchmark scores placing them in the top 50% of all NSSE schools in 2009 and (b) those with benchmark scores in the top 10% for 2009.[a] These comparisons allow an institution to determine if the engagement of their students differs in significant, meaningful ways from students in these high performing peer groups.

Example

		NSSEville State	*NSSEville State compared with*					
			NSSE 2009 Top 50%			**NSSE 2009 Top 10%**		
		Mean	*Mean*	*Sig*	*Effect size*	*Mean*	*Sig*	*Effect size*
First-Year	LAC	57.1	55.8	*	.10	60.5	***	-0.28
	ACL	50.3	45.8	***	.28	50.7		-0.02
	SFI	37.3	37.2		.01	42.0	***	-0.24
	EEE	21.8	30.0	***	-.63	34.4	***	-0.98
	SCE	60.9	64.7	***	-.21	69.7	***	-0.49

NSSEville State CAN conclude...

- The average score for NSSEville State first-year students is slightly above (i.e., small positive effect size) that of the average student attending NSSE 2009 schools that scored in the top 50% on Level of Academic Challenge (LAC).
- The average NSSEville State first-year student is as engaged (i.e., not significantly different) as the average student attending NSSE 2009 schools that scored in the top 10% on Active and Collaborative Learning (ACL).
- It is *likely* that NSSEville State is in the top 50% of all NSSE 2009 schools for first-year students on Level of Academic Challenge (LAC) and Active and Collaborative Learning (ACL).[a]

NSSEville State CANNOT conclude[a]...

- NSSEville State is in the top half of all schools on the Student-Faculty Interaction (SFI) benchmark for first-year students.[a]
- NSSEville State is a "top ten percent" institution on Active and Collaborative Learning (ACL) for first-year students.[a]

For additional information on how to understand and use the Top 50% and Top 10% section of the benchmark report, see www.nsse.iub.edu/2009_Institutional_Report/.

[a] Precision-weighted means (produced by Hierarchical Linear Modeling) were used to determine the top 50% and top 10% institutions for each benchmark, separately for first-year and senior students. Using this method, benchmark scores of institutions with relatively large standard errors are adjusted substantially toward the grand mean of all students, while those with smaller standard errors receive smaller corrections. Thus, schools with less stable data, though they may have high scores, may not be identified among the top scorers. NSSE does not publish the names of the top 50% and top 10% institutions because of our commitment not to release individual school results and our policy against the ranking of institutions.

NYCCT compared with

		NYCCT	NSSE 2009 Top 50%			NSSE 2009 Top 10%		
		Mean [a]	Mean [a]	Sig [b]	Effect size [c]	Mean [a]	Sig [b]	Effect size [c]
First-Year	LAC	51.7	56.8		-.39	58.9	**	-.55
	ACL	40.1	47.8	*	-.46	51.7	***	-.66
	SFI	28.2	39.1	**	-.57	43.7	***	-.75
	EEE	25.0	31.0	*	-.45	32.8	**	-.57
	SCE	64.2	66.2		-.11	69.1		-.27
Senior	LAC	58.4	60.1		-.13	62.8	**	-.33
	ACL	53.0	55.7		-.16	59.1	**	-.36
	SFI	42.4	48.8	**	-.30	54.2	***	-.53
	EEE	34.4	48.1	***	-.77	54.2	***	-1.15
	SCE	55.6	64.1	***	-.45	67.5	***	-.64

Level of Academic Challenge (LAC)

Legend

☐ NYCCT
◼ Top 50%
◻ Top 10%

This display compares your students with those attending schools that scored in the top 50% and top 10% of all NSSE 2009 institutions on a particular benchmark.
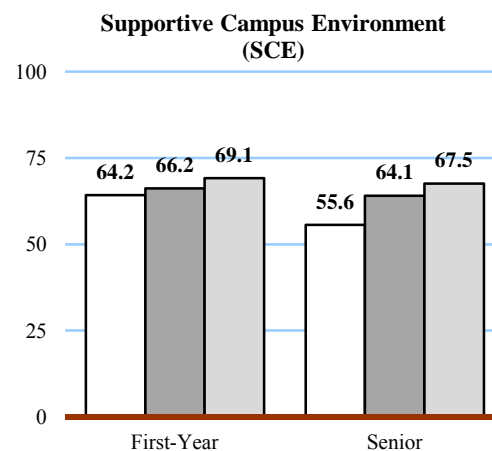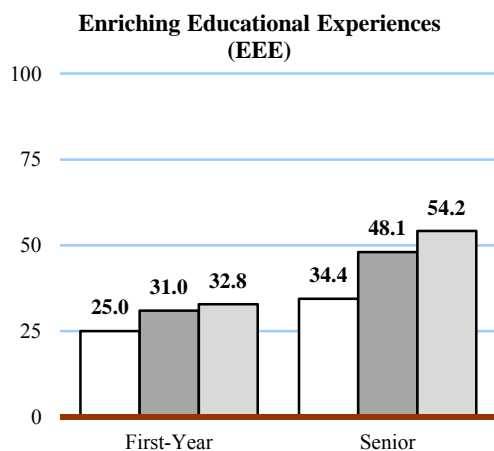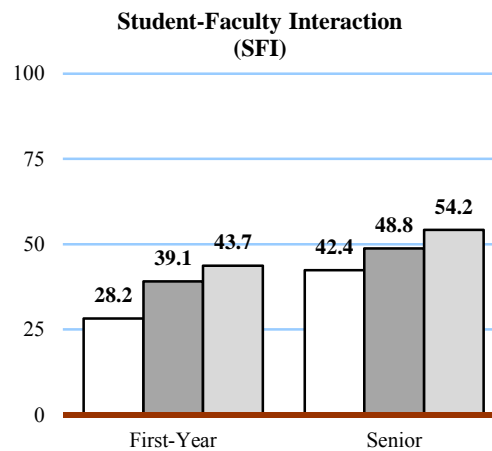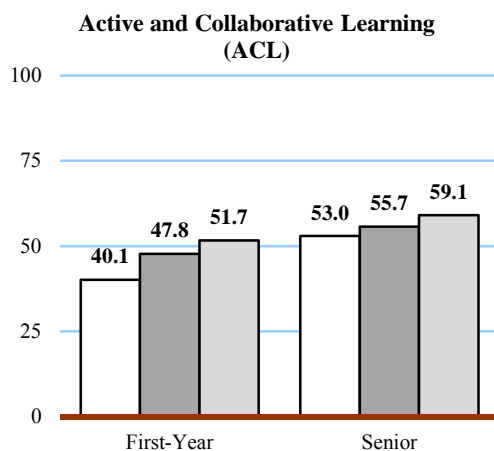
Active and Collaborative Learning (ACL)

Student-Faculty Interaction (SFI)

Enriching Educational Experiences (EEE)

Supportive Campus Environment (SCE)

[a] Weighted by gender, enrollment status, and institutional size.

[b] * p<.05 ** p<.01 ***p<.001 (2-tailed).

[c] Mean difference divided by the pooled standard deviation.

First-Year Students

		Mean Statistics			Distribution Statistics					Reference Group Comparison Statistics			
							Percentiles [d]			Deg. of Freedom [e]	Mean Diff.	Sig. [f]	Effect size [g]
		Mean	SD [b]	SEM [c]	5th	25th	50th	75th	95th				
LEVEL OF ACADEMIC CHALLENGE (LAC)													
NYCCT	(N = 24)	51.7	12.1	2.5	38	45	50	58	74				
CSWC		53.6	13.6	.1	31	44	54	63	75	12,038	-1.9	.505	-.14
CUNY System		54.0	14.6	.3	30	44	54	64	77	1,915	-2.2	.459	-.15
NSSE 2009		53.7	13.5	.1	32	44	54	63	75	71,444	-1.9	.481	-.14
Top 50%		56.8	13.0	.1	35	48	57	66	78	27,235	-5.1	.057	-.39
Top 10%		58.9	12.9	.2	37	50	59	68	79	7,402	-7.1	.007	-.55
ACTIVE AND COLLABORATIVE LEARNING (ACL)													
NYCCT	(N = 26)	40.1	14.4	2.8	19	29	38	48	67				
CSWC		42.4	16.7	.1	19	33	42	52	71	13,141	-2.2	.494	-.13
CUNY System		40.3	17.7	.4	14	29	38	52	71	2,160	-.1	.976	-.01
NSSE 2009		43.2	16.6	.1	19	33	43	52	71	77,649	-3.0	.355	-.18
Top 50%		47.8	16.6	.1	24	38	48	57	76	23,115	-7.6	.019	-.46
Top 10%		51.7	17.5	.2	24	38	52	62	81	4,914	-11.6	.001	-.66
STUDENT-FACULTY INTERACTION (SFI)													
NYCCT	(N = 25)	28.2	17.0	3.4	6	17	28	39	50				
CSWC		34.3	18.6	.2	11	22	33	44	72	12,166	-6.1	.106	-.33
CUNY System		32.2	19.3	.4	6	17	28	44	72	1,951	-4.0	.303	-.21
NSSE 2009		34.7	18.4	.1	11	22	33	44	72	72,187	-6.4	.082	-.35
Top 50%		39.1	19.2	.1	11	27	39	50	78	21,216	-10.9	.005	-.57
Top 10%		43.7	20.6	.4	17	28	39	56	83	3,483	-15.5	.000	-.75
ENRICHING EDUCATIONAL EXPERIENCES (EEE)													
NYCCT	(N = 24)	25.0	11.6	2.4	8	17	27	31	45				
CSWC		27.7	13.8	.1	8	18	26	36	51	11,721	-2.7	.337	-.20
CUNY System		25.8	14.2	.3	6	17	24	33	51	1,836	-.7	.799	-.05
NSSE 2009		28.0	13.4	.1	8	18	27	36	51	69,591	-3.0	.275	-.22
Top 50%		31.0	13.4	.1	11	22	30	39	54	30,814	-6.0	.030	-.45
Top 10%		32.8	13.7	.1	12	23	32	41	56	9,711	-7.8	.006	-.57
SUPPORTIVE CAMPUS ENVIRONMENT (SCE)													
NYCCT	(N = 23)	64.2	17.8	3.7	44	50	58	78	92				
CSWC		60.2	18.9	.2	28	47	61	72	92	11,438	4.0	.306	.21
CUNY System		56.6	20.1	.5	22	42	56	70	92	1,777	7.7	.069	.38
NSSE 2009		61.6	18.8	.1	31	50	61	75	92	67,902	2.7	.499	.14
Top 50%		66.2	18.1	.1	36	56	67	78	94	21,600	-2.0	.597	-.11
Top 10%		69.1	18.3	.3	36	58	69	83	97	4,909	-4.9	.197	-.27

[a] All statistics are weighted by gender, enrollment status, and institutional size.

[b] Standard deviation is a measure of the average amount the individual scores deviate from the mean of all the scores in the distribution.

[c] The 95% confidence interval for the population mean is equal to the sample mean plus/minus 1.96 times the standard error of the mean.

[d] A percentile is the point in the distribution of student-level benchmark scores at or below which a given percentage of benchmark scores fall.

[e] Degrees of freedom used to compute the t-tests. Values vary for the total Ns due to weighting and the equal variance assumption.

[f] Statistical significance represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

[g] Effect size is calculated by subtracting the comparison group mean from the school mean, and dividing the result by the pooled standard deviation.

National Survey of Student Engagement

NSSE 2009 Benchmark Comparisons
Detailed Statistics and Effect Sizes [a]
CUNY New York City College of Technology

Seniors

		Mean Statistics			Distribution Statistics					Reference Group Comparison Statistics			
							Percentiles [d]			Deg. of	Mean		Effect
		Mean	SD [b]	SEM [c]	5th	25th	50th	75th	95th	Freedom [e]	Diff.	Sig. [f]	size [g]
LEVEL OF ACADEMIC CHALLENGE (LAC)													
NYCCT	(N = 82)	58.4	14.5	1.6	30	48	63	68	77				
CSWC		56.7	14.4	.1	32	47	57	67	80	26,402	1.7	.278	.12
CUNY System		56.3	15.2	.3	31	46	56	67	80	1,989	2.1	.217	.14
NSSE 2009		57.0	14.3	.0	33	48	57	67	80	144,783	1.3	.392	.09
Top 50%		60.1	13.7	.1	37	51	61	70	82	45,190	-1.7	.258	-.13
Top 10%		62.8	13.3	.1	40	54	63	72	84	9,506	-4.4	.003	-.33
ACTIVE AND COLLABORATIVE LEARNING (ACL)													
NYCCT	(N = 85)	53.0	18.4	2.0	29	39	52	67	81				
CSWC		50.3	17.5	.1	24	38	48	62	81	27,767	2.7	.158	.15
CUNY System		45.5	17.0	.4	19	33	43	57	76	2,145	7.4	.000	.44
NSSE 2009		51.0	17.4	.0	24	38	52	62	81	152,017	1.9	.303	.11
Top 50%		55.7	16.9	.1	29	43	57	67	86	40,953	-2.8	.130	-.16
Top 10%		59.1	17.2	.2	33	48	57	71	89	8,763	-6.1	.001	-.36
STUDENT-FACULTY INTERACTION (SFI)													
NYCCT	(N = 84)	42.4	23.5	2.6	11	22	44	56	78				
CSWC		40.7	20.8	.1	11	28	39	56	80	84	1.8	.493	.08
CUNY System		37.2	20.7	.5	11	22	33	50	78	89	5.3	.047	.25
NSSE 2009		42.0	20.9	.1	11	28	39	56	83	145,860	.5	.841	.02
Top 50%		48.8	21.3	.1	17	33	44	61	89	32,738	-6.4	.006	-.30
Top 10%		54.2	22.0	.3	22	39	56	72	94	5,377	-11.7	.000	-.53
ENRICHING EDUCATIONAL EXPERIENCES (EEE)													
NYCCT	(N = 80)	34.4	17.8	2.0	11	19	31	48	67				
CSWC		40.1	18.3	.1	11	26	39	53	72	25,835	-5.7	.005	-.31
CUNY System		35.6	18.0	.4	8	22	33	47	68	1,908	-1.1	.582	-.06
NSSE 2009		40.8	18.2	.0	13	28	40	54	72	142,011	-6.4	.002	-.35
Top 50%		48.1	17.8	.1	18	36	48	61	77	44,595	-13.6	.000	-.77
Top 10%		54.2	17.1	.2	25	43	55	66	81	9,347	-19.7	.000	-1.15
SUPPORTIVE CAMPUS ENVIRONMENT (SCE)													
NYCCT	(N = 78)	55.6	21.0	2.4	22	39	58	67	89				
CSWC		56.3	19.5	.1	25	42	56	69	89	25,325	-.6	.777	-.03
CUNY System		52.3	20.6	.5	19	39	50	67	89	1,863	3.4	.160	.16
NSSE 2009		58.2	19.3	.1	25	44	58	72	92	139,495	-2.6	.236	-.13
Top 50%		64.1	18.8	.1	33	53	64	78	94	37,738	-8.4	.000	-.45
Top 10%		67.5	18.5	.2	36	56	69	81	97	9,244	-11.9	.000	-.64

[a] All statistics are weighted by gender, enrollment status, and institutional size.

[b] Standard deviation is a measure of the average amount the individual scores deviate from the mean of all the scores in the distribution.

[c] The 95% confidence interval for the population mean is equal to the sample mean plus/minus 1.96 times the standard error of the mean.

[d] A percentile is the point in the distribution of student-level benchmark scores at or below which a given percentage of benchmark scores fall.

[e] Degrees of freedom used to compute the t-tests. Values vary for the total Ns due to weighting and the equal variance assumption.

[f] Statistical significance represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

[g] Effect size is calculated by subtracting the comparison group mean from the school mean, and dividing the result by the pooled standard deviation.