



National Survey of Student Engagement

CUNY New York City College of Technology

Benchmark Comparisons

August 2007

To focus discussions about the importance of student engagement and guide institutional improvement efforts, NSSE created five clusters or "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/2007_Institutional_Report/.

Class and Sample

Means are reported for first-year students and seniors. Institution-reports class ranks 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

Effect size indicates the practical significance of the mean difference. It is calculated by dividing the mean difference by the standard deviation of the group to which the institution is being compared. 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. Look for patterns of effect sizes that point to areas of student or institutional performance that warrant attention.

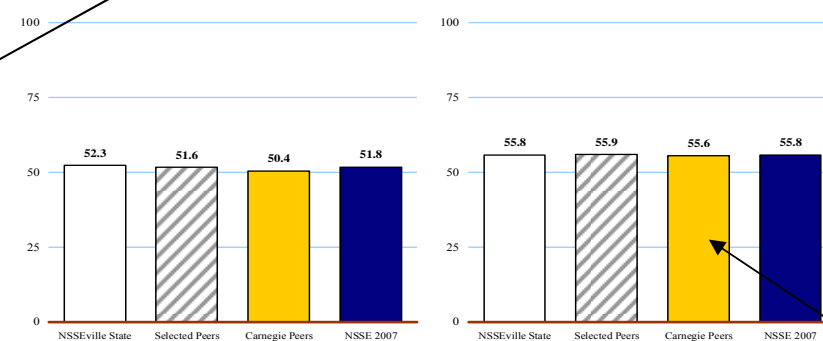
Level of Academic Challenge (LAC)

Benchmark Comparisons

Class	NSSEville State				NSSEville State compared with:			
	Mean ^a	Mean ^a	Sig. ^b	Effect Size ^c	Mean ^a	Sig. ^b	Effect Size ^c	Mean ^a
First-Year	52.3	51.6	.05		50.4 *	.14		51.8
Senior	55.8	55.9	-.01		55.6	.02		55.8

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

Benchmark Description & Survey Items

A description of the benchmark and the individual items used in its creation are summarized.

Bar Charts

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

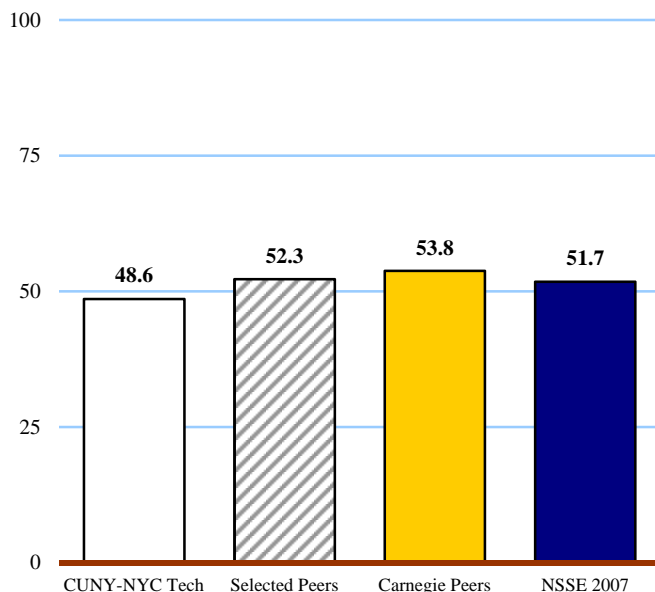
Level of Academic Challenge (LAC)

Benchmark Comparisons

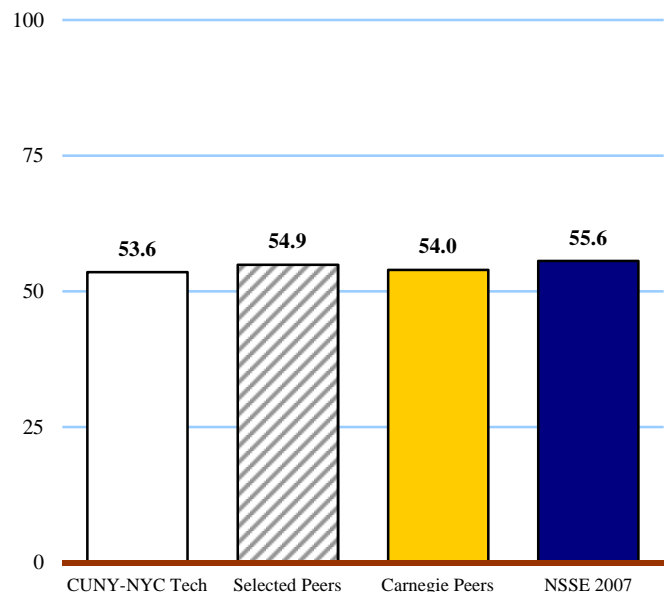
CUNY-NYC Tech compared with:

Class	CUNY-NYC Tech	Selected Peers			Carnegie Peers			NSSE 2007		
	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	48.6	52.3	*	-.27	53.8	*	-.36	51.7		-.24
Senior	53.6	54.9		-.10	54.0		-.03	55.6		-.14

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, rehearsing, etc. related to academic program)

Number of assigned textbooks, books, or book-length packs of course readings

Number of written papers or reports of 20 pages or more; number of written papers or reports of between 5 and 19 pages; and number of written papers or reports of fewer than 5 pages

Coursework emphasizing analysis of the basic elements of an idea, experience or theory

Coursework emphasizing synthesis and organizing of ideas, information, or experiences into new, more complex interpretations and relationships

Coursework emphasizing the making of judgments about the value of information, arguments, or methods

Coursework emphasizing application of theories or concepts to practical problems or in new situations

Working harder than you thought you could to meet an instructor's standards or expectations

Campus environment emphasizing time studying and on academic work

^a Weighted by gender, enrollment status, and institutional size.

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

^c Mean difference divided by comparison group standard deviation.

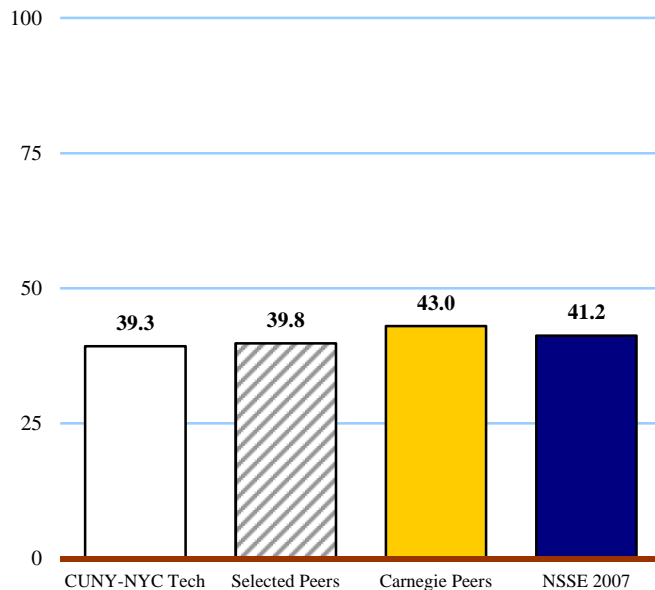
Active and Collaborative Learning (ACL)

Benchmark Comparisons

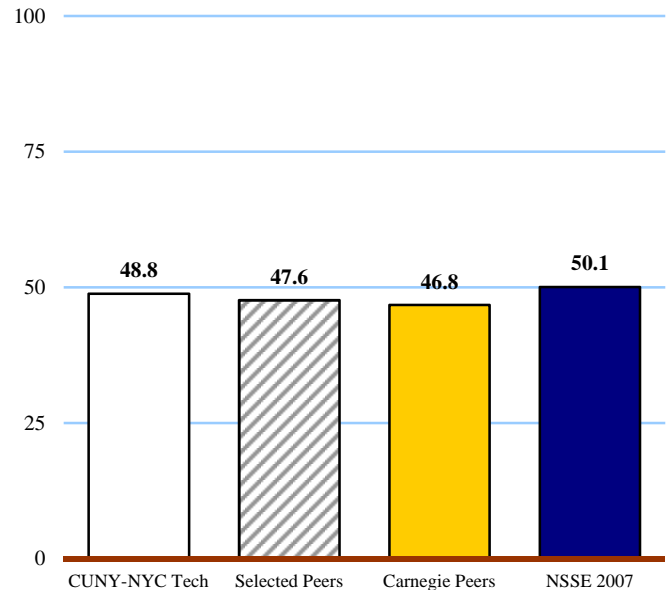
CUNY-NYC Tech compared with:

Class	CUNY-NYC Tech	Selected Peers			Carnegie Peers			NSSE 2007		
	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	39.3	39.8		-.03	43.0		-.21	41.2		-.12
Senior	48.8	47.6		.07	46.8		.11	50.1		-.07

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
- 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.)

^a Weighted by gender, enrollment status, and institutional size.

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

^c Mean difference divided by comparison group standard deviation.

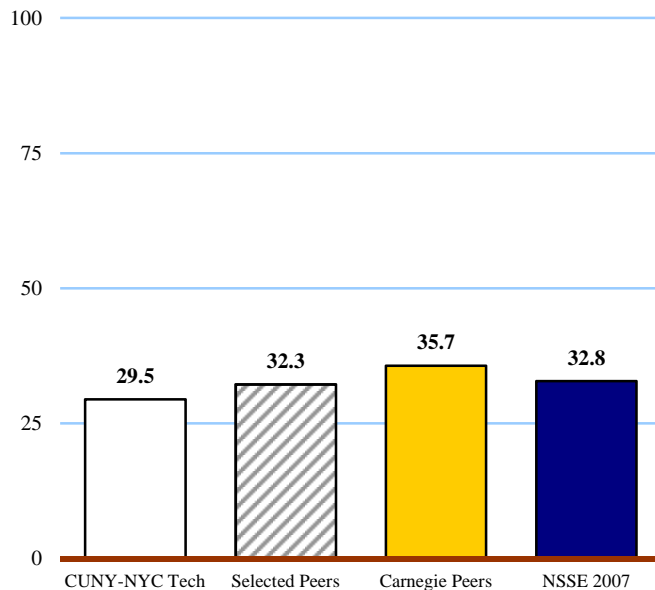
Student-Faculty Interaction (SFI)

Benchmark Comparisons

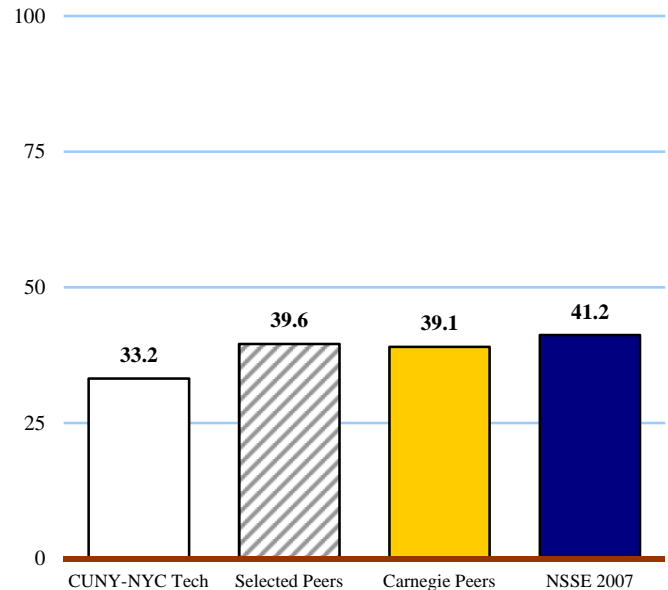
CUNY-NYC Tech compared with:

Class	CUNY-NYC Tech	Selected Peers			Carnegie Peers			NSSE 2007		
	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	29.5	32.3		-.15	35.7 *		-.33	32.8		-.19
Senior	33.2	39.6	*	-.31	39.1		-.28	41.2 *		-.39

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 with a faculty member on a research project outside of course or program requirements

^a Weighted by gender, enrollment status, and institutional size.

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

^c Mean difference divided by comparison group standard deviation.

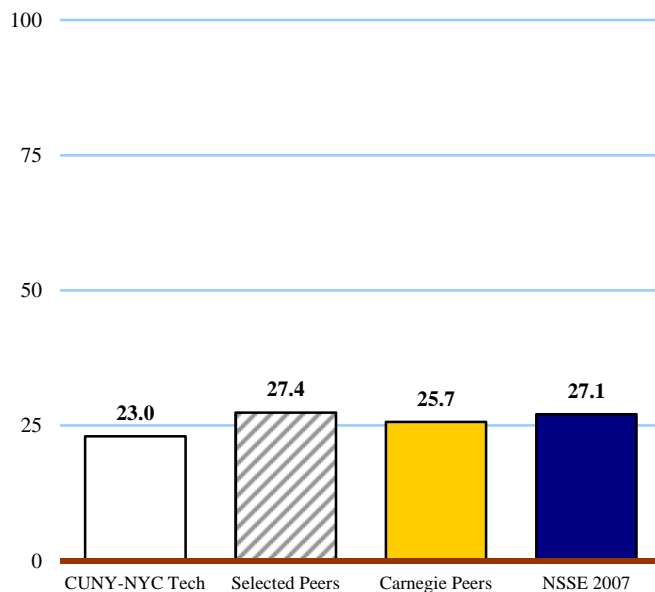
Enriching Educational Experiences (EEE)

Benchmark Comparisons

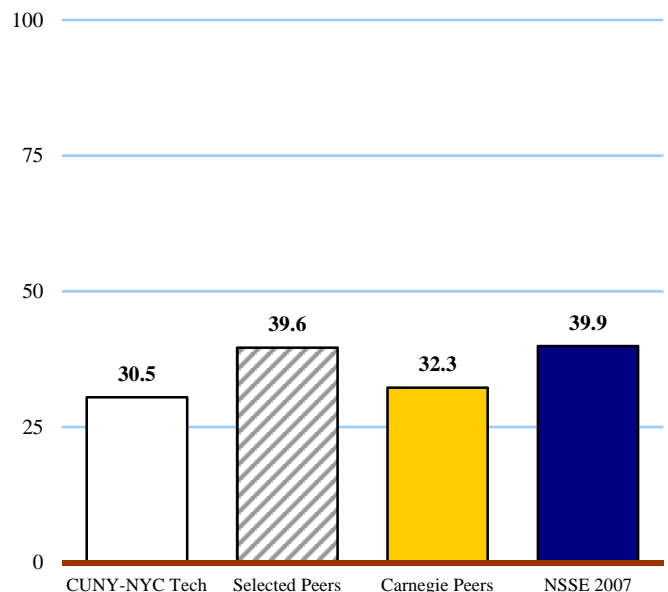
CUNY-NYC Tech compared with:

Class	CUNY-NYC Tech	Selected Peers			Carnegie Peers			NSSE 2007		
	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	23.0	27.4	*	-.33	25.7	-.19		27.1	*	-.31
Senior	30.5	39.6	***	-.51	32.3	-.10		39.9	***	-.53

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, 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 (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
- 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

^a Weighted by gender, enrollment status, and institutional size.

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

^c Mean difference divided by comparison group standard deviation.

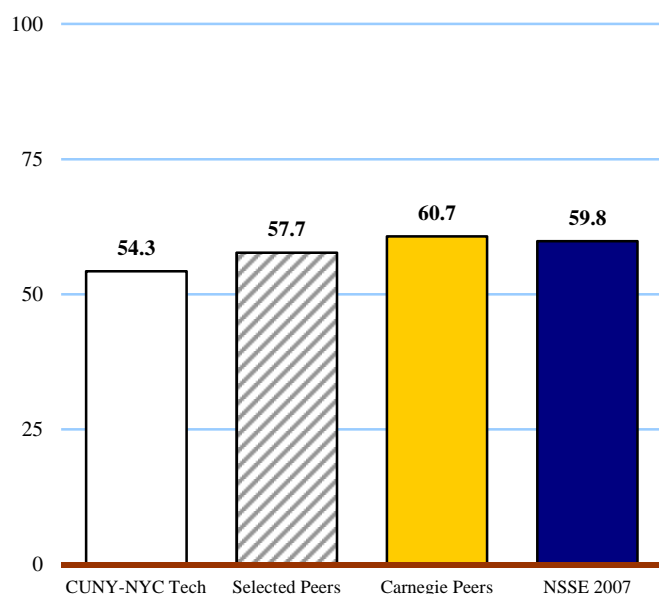
Supportive Campus Environment (SCE)

Benchmark Comparisons

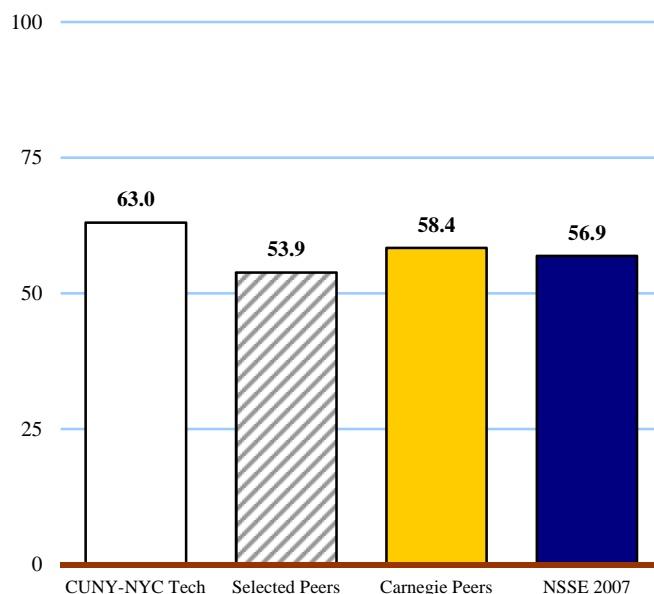
CUNY-NYC Tech compared with:

Class	CUNY-NYC Tech	Selected Peers			Carnegie Peers			NSSE 2007		
	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	54.3	57.7		-.18	60.7	*	-.31	59.8		-.30
Senior	63.0	53.9	**	.48	58.4		.22	56.9	*	.32

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

^a Weighted by gender, enrollment status, and institutional size.

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

^c Mean difference divided by comparison group standard deviation.

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 2007 and (b) those with benchmark scores in the top 10% for 2007.^a These comparisons allow an institution to determine if their engagement of their students differs in significant, meaningful ways from these high performing peer groups.

Example

		NSSEville		NSSE 2007		NSSE 2007		
		State		Top 50%		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 2007 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 2007 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 2007 schools for first-year students on Level of Academic Challenge (LAC) and Active and Collaborative Learning (ACL).^{a,b}

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.^b
- ♦ NSSEville State is a "top ten percent" institution on Active and Collaborative Learning (ACL) for first-year students.^b

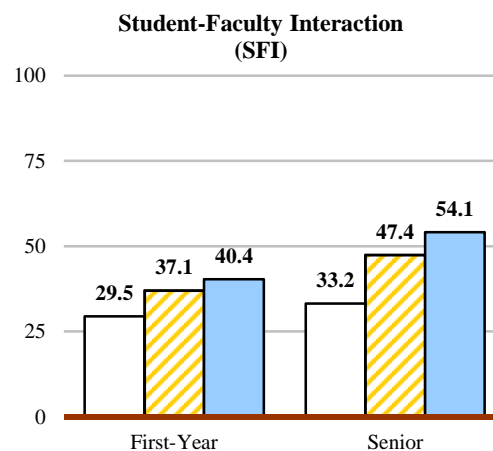
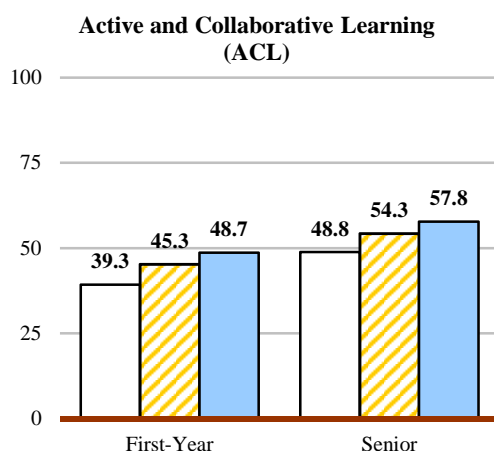
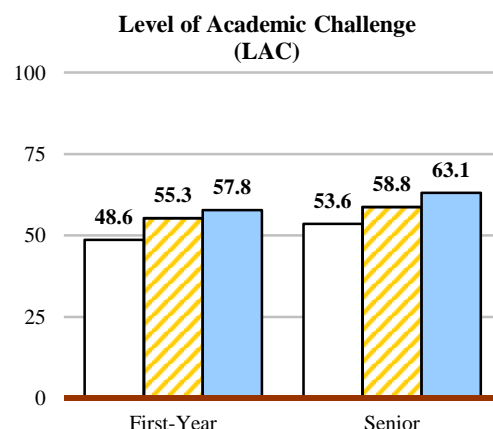
For additional information on how to understand and use the Top 50% and Top 10% section of the benchmark report, see www.nsse.iub.edu/2007_Institutional_Report/.

^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.




^b 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 because of issues raised in our policy against the ranking of institutions.

CUNY-NYC Tech compared with

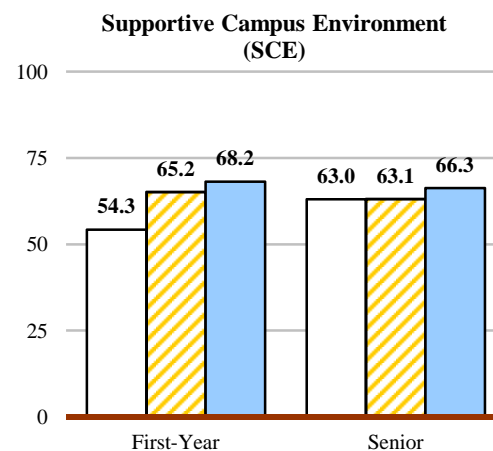
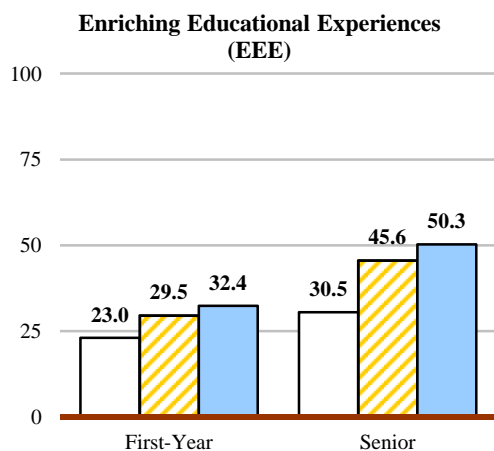
	CUNY-NYC Tech	NSSE 2007 Top 50%			NSSE 2007 Top 10%		
		Mean ^a	Sig ^b	Effect size ^c	Mean ^a	Sig ^b	Effect size ^c
First-Year	LAC	48.6	55.3 ***	-.53	57.8 ***	-.72	
	ACL	39.3	45.3 **	-.37	48.7 ***	-.55	
	SFI	29.5	37.1 **	-.41	40.4 ***	-.56	
	EEE	23.0	29.5 ***	-.50	32.4 ***	-.70	
	SCE	54.3	65.2 **	-.61	68.2 ***	-.76	
Senior	LAC	53.6	58.8 *	-.38	63.1 ***	-.71	
	ACL	48.8	54.3 *	-.33	57.8 ***	-.51	
	SFI	33.2	47.4 ***	-.67	54.1 ***	-.96	
	EEE	30.5	45.6 ***	-.87	50.3 ***	-1.13	
	SCE	63.0	63.1	.00	66.3	-.18	



Legend

-  CUNY-NYC Tech
-  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 2007 institutions on the benchmark.



^a Weighted by gender, enrollment status, and institutional size.

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

^c Mean difference divided by comparison group standard deviation.

First-Year Students

Reference Group Comparison Statistics																
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)																
CUNY-NYC Tech	(N = 53)	48.6	12.7	1.7	29	39	49	57	71							
Selected Peers		52.3	13.3	.2	31	43	52	61	74	4,521	-3.6	.048	-.27			
Carnegie Peers		53.8	14.5	.7	30	44	55	64	76	426	-5.2	.014	-.36			
NSSE 2007		51.7	13.3	.1	30	43	52	61	74	67,735	-3.1	.086	-.24			
Top 50%		55.3	12.7	.1	34	47	55	64	76	23,330	-6.7	.000	-.53			
Top 10%		57.8	12.7	.2	37	49	58	67	78	5,462	-9.2	.000	-.72			
ACTIVE AND COLLABORATIVE LEARNING (ACL)																
CUNY-NYC Tech	(N = 53)	39.3	16.3	2.2	10	29	43	48	62							
Selected Peers		39.8	16.1	.2	19	29	38	48	67	5,009	-.6	.802	-.03			
Carnegie Peers		43.0	17.7	.9	19	33	43	52	76	439	-3.7	.148	-.21			
NSSE 2007		41.2	16.2	.1	19	29	38	52	71	74,121	-2.0	.380	-.12			
Top 50%		45.3	16.0	.1	24	33	43	57	75	22,822	-6.0	.006	-.37			
Top 10%		48.7	17.2	.3	24	38	48	58	81	4,045	-9.4	.000	-.55			
STUDENT-FACULTY INTERACTION (SFI)																
CUNY-NYC Tech	(N = 53)	29.5	20.7	2.8	6	11	22	39	61							
Selected Peers		32.3	18.1	.3	11	17	28	40	67	4,575	-2.8	.269	-.15			
Carnegie Peers		35.7	18.8	1.0	11	22	33	44	72	428	-6.2	.028	-.33			
NSSE 2007		32.8	17.8	.1	11	22	28	44	67	68,614	-3.3	.175	-.19			
Top 50%		37.1	18.5	.1	11	22	33	50	72	20,127	-7.6	.003	-.41			
Top 10%		40.4	19.4	.3	11	28	39	53	78	3,841	-10.9	.000	-.56			
ENRICHING EDUCATIONAL EXPERIENCES (EEE)																
CUNY-NYC Tech	(N = 53)	23.0	13.8	1.9	6	17	22	26	56							
Selected Peers		27.4	13.4	.2	8	18	26	36	51	4,404	-4.4	.018	-.33			
Carnegie Peers		25.7	13.9	.7	6	15	23	33	52	410	-2.6	.201	-.19			
NSSE 2007		27.1	13.1	.1	8	18	26	35	50	66,037	-4.0	.024	-.31			
Top 50%		29.5	13.1	.1	11	20	29	37	52	33,074	-6.5	.000	-.50			
Top 10%		32.4	13.3	.2	12	23	32	41	55	6,144	-9.3	.000	-.70			
SUPPORTIVE CAMPUS ENVIRONMENT (SCE)																
CUNY-NYC Tech	(N = 53)	54.3	22.9	3.1	25	36	47	72	100							
Selected Peers		57.7	18.8	.3	25	44	58	69	89	53	-3.4	.282	-.18			
Carnegie Peers		60.7	20.5	1.1	25	47	61	75	94	407	-6.4	.036	-.31			
NSSE 2007		59.8	18.6	.1	28	47	61	72	92	52	-5.6	.083	-.30			
Top 50%		65.2	17.9	.1	33	53	67	78	94	52	-10.9	.001	-.61			
Top 10%		68.2	18.3	.3	36	56	69	81	97	53	-13.9	.000	-.76			

^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 the product of 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 standard deviation of the comparison group.

Seniors

Reference Group Comparison Statistics																
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)																
CUNY-NYC Tech	(N = 43)	53.6	13.6	2.1	32	43	54	62	76							
Selected Peers		54.9	14.1	.3	31	45	55	65	78	2,817	-1.3	.535	-.10			
Carnegie Peers		54.0	15.7	1.2	28	43	54	65	80	215	-.4	.874	-.03			
NSSE 2007		55.6	14.2	.1	32	46	56	65	78	41,675	-2.0	.344	-.14			
Top 50%		58.8	13.8	.1	36	50	59	69	81	11,961	-5.2	.013	-.38			
Top 10%		63.1	13.4	.3	40	54	64	73	84	1,783	-9.5	.000	-.71			
ACTIVE AND COLLABORATIVE LEARNING (ACL)																
CUNY-NYC Tech	(N = 43)	48.8	16.3	2.5	24	33	48	62	71							
Selected Peers		47.6	17.1	.3	24	33	48	57	76	2,995	1.2	.656	.07			
Carnegie Peers		46.8	18.7	1.4	19	33	43	57	81	220	2.0	.510	.11			
NSSE 2007		50.1	17.3	.1	24	38	48	62	81	43,943	-1.3	.632	-.07			
Top 50%		54.3	16.9	.1	29	43	52	67	86	12,846	-5.5	.033	-.33			
Top 10%		57.8	17.5	.3	29	48	57	71	90	2,709	-9.0	.001	-.51			
STUDENT-FACULTY INTERACTION (SFI)																
CUNY-NYC Tech	(N = 43)	33.2	16.5	2.5	11	22	28	44	61							
Selected Peers		39.6	20.5	.4	11	22	39	50	78	2,851	-6.4	.042	-.31			
Carnegie Peers		39.1	20.8	1.6	11	22	33	50	83	218	-5.9	.086	-.28			
NSSE 2007		41.2	20.7	.1	11	28	39	56	80	42,108	-8.0	.011	-.39			
Top 50%		47.4	21.2	.2	17	33	44	61	83	43	-14.2	.000	-.67			
Top 10%		54.1	21.7	.6	22	39	56	72	94	47	-20.9	.000	-.96			
ENRICHING EDUCATIONAL EXPERIENCES (EEE)																
CUNY-NYC Tech	(N = 43)	30.5	15.3	2.3	3	22	31	33	61							
Selected Peers		39.6	17.9	.3	11	26	39	52	70	44	-9.2	.000	-.51			
Carnegie Peers		32.3	17.5	1.3	8	19	29	44	65	212	-1.8	.538	-.10			
NSSE 2007		39.9	17.8	.1	11	26	39	52	71	42	-9.4	.000	-.53			
Top 50%		45.6	17.5	.1	17	33	46	58	75	42	-15.1	.000	-.87			
Top 10%		50.3	17.5	.3	21	39	51	63	79	44	-19.8	.000	-1.13			
SUPPORTIVE CAMPUS ENVIRONMENT (SCE)																
CUNY-NYC Tech	(N = 43)	63.0	22.8	3.5	17	50	64	81	100							
Selected Peers		53.9	18.9	.4	22	42	53	67	86	2,711	9.2	.002	.48			
Carnegie Peers		58.4	21.0	1.6	25	44	58	72	94	210	4.7	.202	.22			
NSSE 2007		56.9	19.1	.1	25	44	58	69	89	40,327	6.1	.035	.32			
Top 50%		63.1	18.5	.2	31	50	64	75	94	10,418	-.1	.975	.00			
Top 10%		66.3	18.5	.4	33	53	67	81	94	2,591	-3.3	.250	-.18			

^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 the product of 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 standard deviation of the comparison group.