

# **Institutional Benchmark Report**

November 2004

***California State University, Chico***

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**National Survey of  
Student Engagement**

## 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.

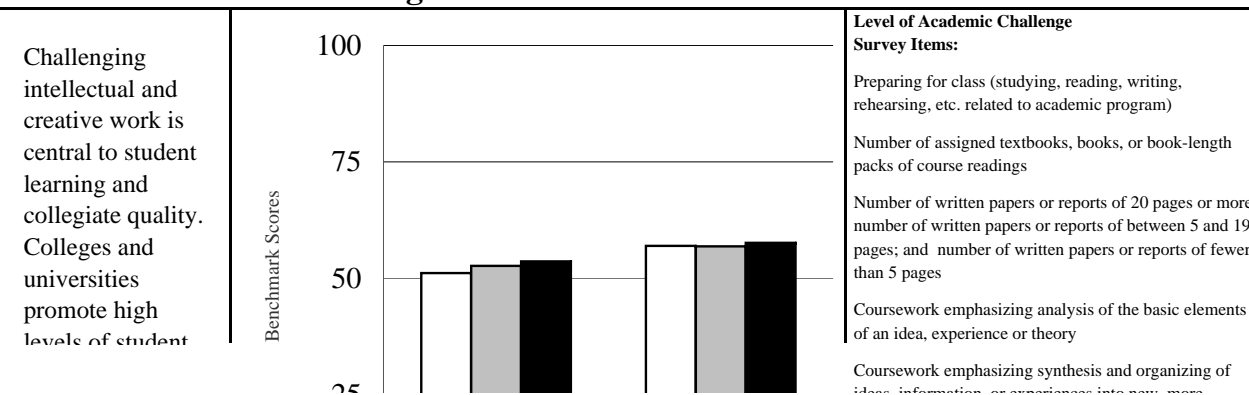
The benchmarks are made up of groups of items on the survey and are expressed in 100-point scales. Each year, NSSE calculates benchmark scores to monitor performance at the institutional, sector, and national level. This year's analysis is based on approximately 162,000 randomly selected students at 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

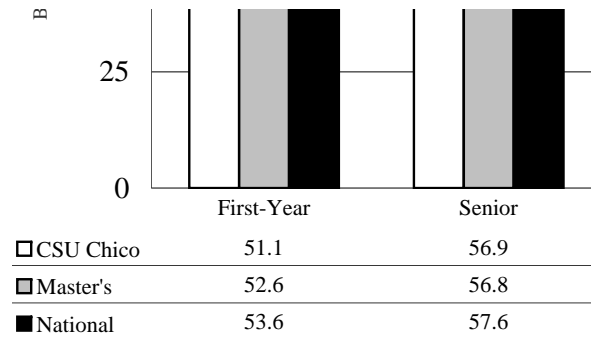
The Benchmark Report presents your institution's benchmark scores and compares them to schools in your Carnegie Classification, and the NSSE national norms. In addition, it provides summary statistics, a decile chart that gauges your institution's performance compared with other schools, and your Institutional 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



levels of student achievement by emphasizing the importance of academic effort and setting high expectations for student performance.



of an idea, experience or theory

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

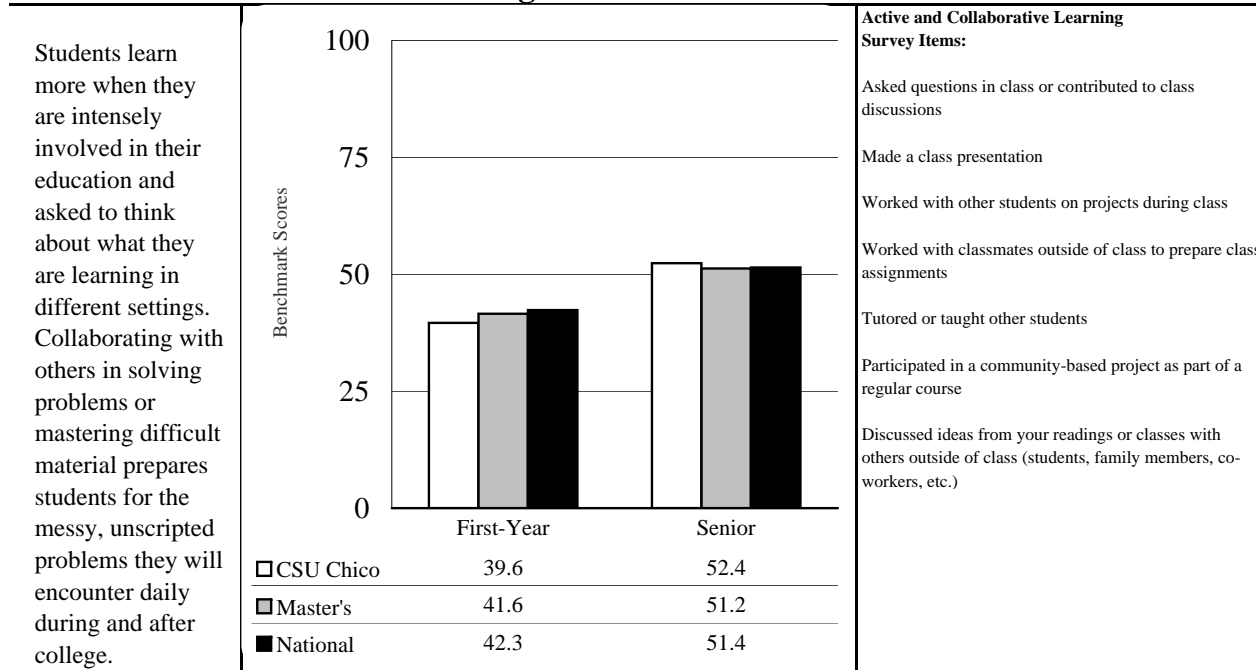
Coursework emphasizing the making of judgments about the value of information, arguments, or methods

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

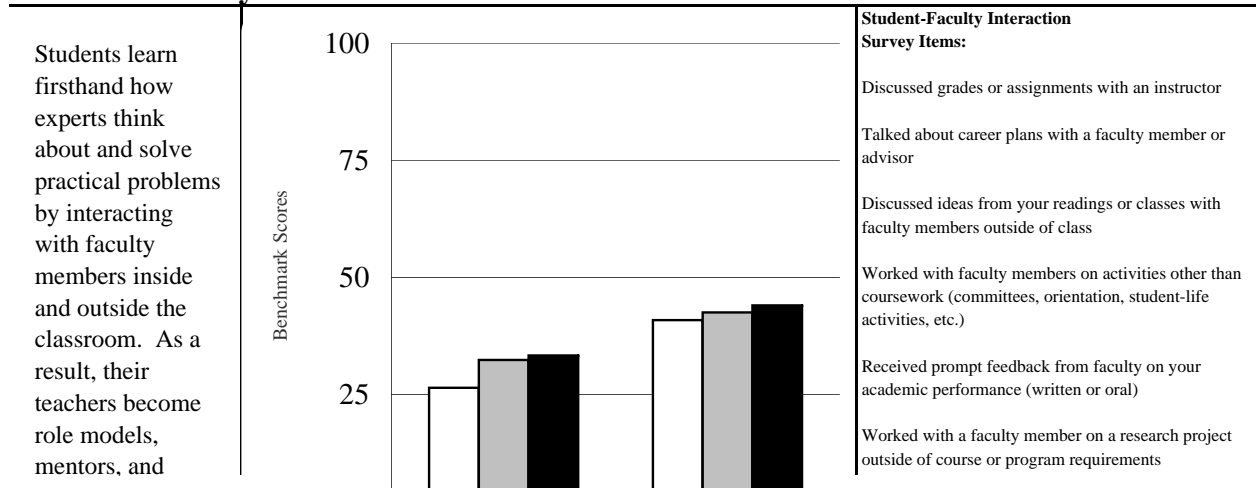
Working harder than you thought you could to meet an instructor's standards or expectations

Campus environment emphasizing time studying and on academic work

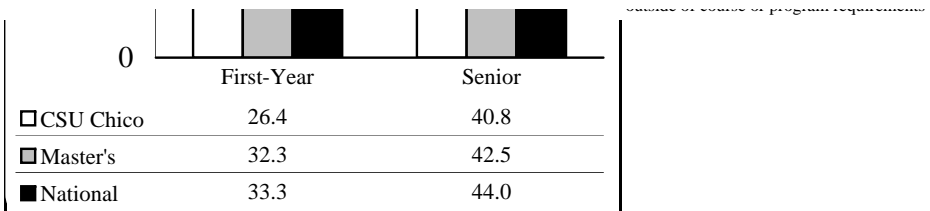
### Active and Collaborative Learning



### Student-Faculty Interaction



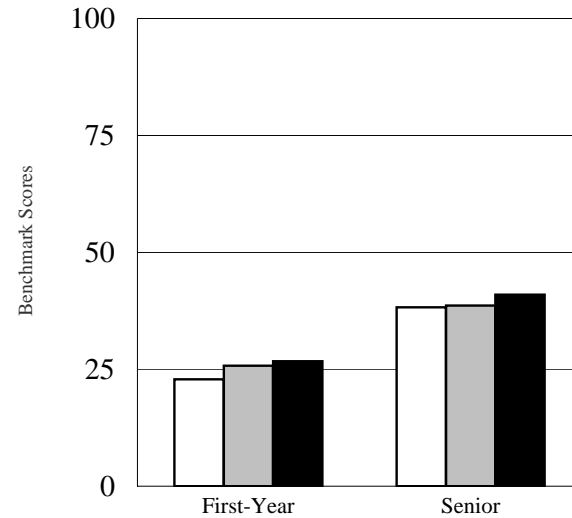
guides for  
continuous, life-  
long learning.





**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.



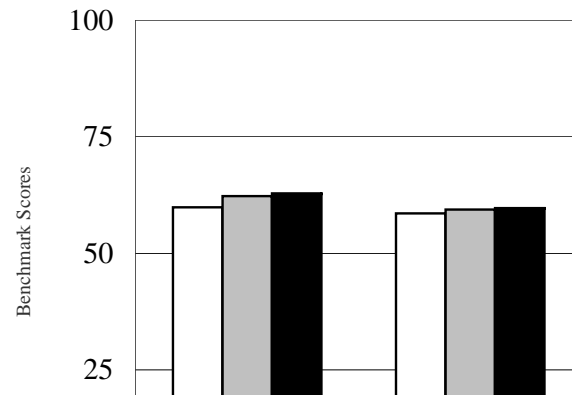
□ CSU Chico	22.8	38.3
■ Master's	25.8	38.6
■ National	26.7	40.9

**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 and 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

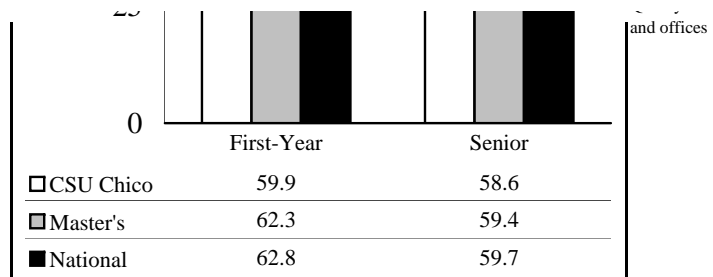
**Supportive Campus Environment**

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



**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	CSU Chico Benchmark Score	Comparison Group Statistics		
			Master's	National
<b>Level of Academic Challenge</b>	51.1	Benchmark Score	52.6	53.6
		Score Difference	-1.6	-2.5
		Standard Deviation	3.5	4.0
		Standard Score	-0.4	-0.6
<b>Active and Collaborative Learning</b>	39.6	Benchmark Score	41.6	42.3
		Score Difference	-2.0	-2.7
		Standard Deviation	4.2	4.8
		Standard Score	-0.5	-0.6
<b>Student-Faculty Interaction</b>	26.4	Benchmark Score	32.3	33.3
		Score Difference	-6.0	-6.9
		Standard Deviation	3.7	4.9
		Standard Score	-1.6	-1.4
<b>Enriching Educational Experiences</b>	22.8	Benchmark Score	25.8	26.7
		Score Difference	-2.9	-3.9
		Standard Deviation	3.5	4.1
		Standard Score	-0.8	-0.9
<b>Supportive Campus Environment</b>	59.9	Benchmark Score	62.3	62.8
		Score Difference	-2.4	-3.0
		Standard Deviation	4.7	5.2
		Standard Score	-0.5	-0.6
Number of Institutions			201	458

**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

Senior				
Benchmark	CSU Chico Benchmark Score	Comparison Group Statistics		
			Master's	National
<b>Level of Academic Challenge</b>	56.9	Benchmark Score	56.8	57.6
		Score Difference	0.1	-0.7
		Standard Deviation	3.1	3.8
		Standard Score	0.0	-0.2
<b>Active and Collaborative Learning</b>	52.4	Benchmark Score	51.2	51.4
		Score Difference	1.1	0.9
		Standard Deviation	3.7	4.3
		Standard Score	0.3	0.2
<b>Student-Faculty Interaction</b>	40.8	Benchmark Score	42.5	44.0
		Score Difference	-1.6	-3.1
		Standard Deviation	5.3	6.9
		Standard Score	-0.3	-0.5

<b>Enriching Educational Experiences</b>	38.3	Benchmark Score	38.6	40.9
		Score Difference	-0.4	-2.7
		Standard Deviation	6.4	7.9
		Standard Score	-0.1	-0.3
<b>Supportive Campus Environment</b>	58.6	Benchmark Score	59.4	59.7
		Score Difference	-0.8	-1.1
		Standard Deviation	4.4	5.5
		Standard Score	-0.2	-0.2
		Number of Institutions	202	459

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>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

**Bac-General Colleges**

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
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	51.1	49.6	1.4	0.6	56.9	55.0	1.9	0.7
Active and Collaborative Learning	39.6	38.4	1.2	0.4	52.4	49.0	3.4	1.1
Student-Faculty Interaction	26.4	28.2	-1.8	-0.5	40.8	39.3	1.5	0.4
Enriching Educational Experiences	22.8	23.7	-0.9	-0.3	38.3	36.0	2.3	0.6
Supportive Campus Environment	59.9	58.5	1.4	0.4	58.6	54.9	3.7	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.

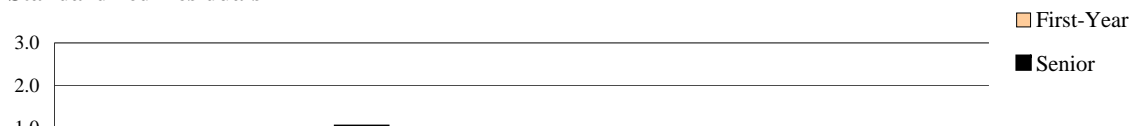
The second column “Predicted” represents what your students are predicted or expected to do across this range of important activities, given their background characteristics and selected institutional information.<sup>2</sup>

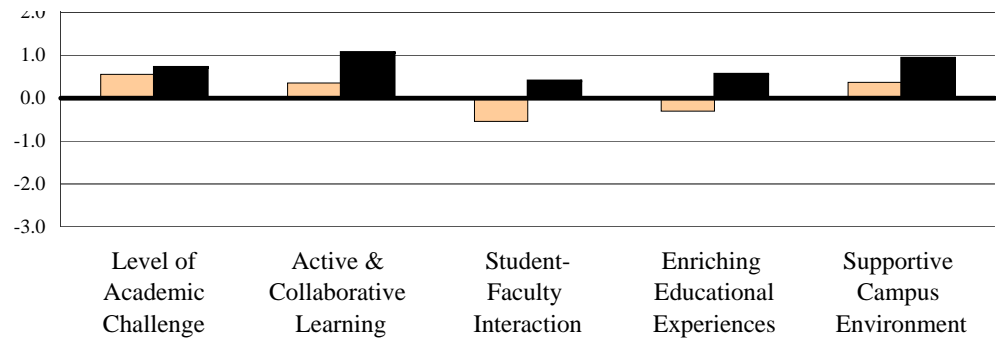
The third column “Residual” is the difference between the actual and predicted scores. A positive score indicates that students are more engaged in the respective educational practice (and likely benefiting more) *than expected*. A negative score indicates that students are doing less than expected in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

