

National Survey of Student Engagement (NSSE)



BENCHMARK TREND

COMPARISON REPORT:

CARNEGIE PEER INSTITUTIONS, 2003-2011

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Table of Contents

List of Tables	2
List of Figures	3
Trend Report 2003-2011	5
Overview	5
Methodology	5
The NSSE Approach	5
Application	5
Peer Comparison Group	6
Respondent Characteristics	6
CSU Benchmark Item Comparisons and Trend Analysis	7
Active and Collaborative Learning (ACL)	8
Student-Faculty Interaction (SFI)	8
Supportive Campus Environment (SCE)	9
Enriching Educational Experiences (EEE)	10
Level of Academic Challenge (LAC)	11
Concluding Remarks	12
Summary of College-level and Institution-level Benchmark Trend Scores	13
College of Business Administration	13
College of Education	16
College of Human and Health Sciences	19
College of Humanities and Social Sciences	22
College of Natural Sciences	25
References	28
Appendix A: Technical Notes	29
Appendix B: Detail of Benchmark Scores by College and Class Rank (i.e., First-Year and Senior Students)	30

List of Tables

Table 1. Sample Response and Sample Size by Class Rank (%)	7
Table 2. Summary Table for First-Year and Senior Student Benchmark Scores, College of Business Administration.....	14
Table 3. Summary Table for First-Year and Senior Student Benchmark Scores, College of Education...17	
Table 4. Summary Table for First-Year and Senior Student Benchmark Scores, College of Human and Health Sciences	20
Table 5. Summary Table for First-Year and Senior Student Benchmark Scores, College of Humanities and Social Sciences	23
Table 6. Summary Table for First-Year and Senior Student Benchmark Scores, College of Natural Sciences	26

List of Figures

<i>Figure 1.</i> Active and Collaborative Learning (ACL) Benchmark Scores (%)	8
<i>Figure 2.</i> Student-Faculty Interaction (SFI) Benchmark Scores (%)	9
<i>Figure 3.</i> Supportive Campus Environment (SCE) Benchmark Scores (%)	10
<i>Figure 4.</i> Enriching Educational Experiences (EEE) Benchmark Scores (%).....	11
<i>Figure 5.</i> Level of Academic Challenge (LAC) Benchmark Scores (%).....	12
<i>Figure 6.</i> Trend ACL Benchmark Scores for the College of Business Administration Compared to Institution-level Scores.....	14
<i>Figure 7.</i> Trend SFI Benchmark Scores for the College of Business Administration Compared to Institution-level Scores.....	14
<i>Figure 8.</i> Trend EEE Benchmark Scores for the College of Business Administration Compared to Institution-level Scores.....	15
<i>Figure 9.</i> Trend SCE Benchmark Scores for the College of Business Administration Compared to Institution-level Scores.....	15
<i>Figure 10.</i> Trend LAC Benchmark Scores for the College of Business Administration Compared to Institution-level Scores.....	15
<i>Figure 11.</i> Trend ACL Benchmark Scores for the College of Education Compared to Institution-level Scores.....	17
<i>Figure 12.</i> Trend SFI Benchmark Scores for the College of Education Compared to Institution-level Scores	17
<i>Figure 13.</i> Trend EEE Benchmark Scores for the College of Education Compared to Institution-level Scores.....	18
<i>Figure 14.</i> Trend SCE Benchmark Scores for the College of Education Compared to Institution-level Scores.....	18
<i>Figure 15.</i> Trend LAC Benchmark Scores for the College of Education Compared to Institution-level Scores.....	18
<i>Figure 16.</i> Trend ACL Benchmark Scores for the College of Human and Health Sciences Compared to Institution-level Scores.....	20
<i>Figure 17.</i> Trend SFI Benchmark Scores for the College of Human and Health Sciences Compared to Institution-level Scores.....	20
<i>Figure 18.</i> Trend EEE Benchmark Scores for the College of Human and Health Sciences Compared to Institution-level Scores.....	21
<i>Figure 19.</i> Trend SCE Benchmark Scores for the College of Human and Health Sciences Compared to Institution-level Scores.....	21
<i>Figure 20.</i> Trend LAC Benchmark Scores for the College of Human and Health Sciences Compared to Institution-level Scores.....	21

Figure 21. Trend ACL Benchmark Scores for the College of Humanities and Social Sciences Compared to Institution-level Scores..... 23

Figure 22. Trend SFI Benchmark Scores for the College of Humanities and Social Sciences Compared to Institution-level Scores..... 23

Figure 23. Trend EEE Benchmark Scores for the College of Humanities and Social Sciences Compared to Institution-level Scores..... 24

Figure 24. Trend SCE Benchmark Scores for the College of Humanities and Social Sciences Compared to Institution-level Scores..... 24

Figure 25. Trend LAC Benchmark Scores for the College of Humanities and Social Sciences Compared to Institution-level Scores..... 24

Figure 26. Trend ACL Benchmark Scores for the College of Natural Sciences Compared to Institution-level Scores..... 26

Figure 27. Trend SFI Benchmark Scores for the College of Natural Sciences Compared to Institution-level Scores..... 26

Figure 28. Trend EEE Benchmark Scores for the College of Natural Sciences Compared to Institution-level Scores..... 27

Figure 29. Trend SCE Benchmark Scores for the College of Natural Sciences Compared to Institution-level Scores..... 27

Figure 30. Trend LAC Benchmark Scores for the College of Natural Sciences Compared to Institution-level Scores..... 27

OVERVIEW

The *National Survey of Student Engagement (NSSE)* is a collegiate level survey designed to assess the amount of time and effort students put into their studies and other educationally purposeful activities. NSSE also looks at how the institution deploys its resources and organizes the curriculum and other learning opportunities to engage students in activities that are related to student learning and development. NSSE calls this “student engagement.” (Indiana University, 2011)

METHODOLOGY

California State University, Stanislaus (CSU Stanislaus) participates in NSSE which is conducted on behalf of the university by the Indiana University Center for Postsecondary Research (CPR). Utilizing the NSSE instrument, the *College Student Report*, self-reported information is collected from a random sample of baccalaureate degree-seeking first-year (FY) students, with continuing enrollment from the fall semester to date; graduating senior (SNR) students. Through a third-party survey administration whereby NSSE sends institution-customized survey invitation messages directly to students, the survey instrument was administered for all years prior to spring 2009, in a paper format in which students receive a paper survey instrument in two postal mailings, with the option to complete the web version. In spring 2009 and spring 2011, the university elected to use a web-only format which provides a larger sample size, leading to increased precision in population estimates. This trend report is based on the benchmark results of five years of NSSE administration in 2003, 2004, 2006, 2009, and 2011.

THE NSSE APPROACH

In order to analytically and systematically assess student engagement, the NSSE CPR engaged in extensive empirical analyses to develop a multi-dimensional measurement model called the five benchmarks of Effective Educational Practice. (Indiana University, 2001) These five benchmarks are used in measuring the association of engagement in the academic environment with student learning and development. The results may also be used as a measure of university effectiveness and quality environment.

The five benchmarks are measured by a combination of 42 key question items conceptualized and operationalized to capture the most important aspects of student engagement and the academic experience related to student learning and development. To view a sample of the NSSE survey instrument, go to http://nsse.iub.edu/html/survey_instruments_2011.cfm, respectively.

The five benchmarks are described in the following sections:

1. Active and Collaborative Learning (ACL)
2. Student-Faculty Interaction (SFI)
3. Supportive Campus Environment (SCE)
4. Enriching Educational Experiences (EEE)
5. Level of Academic Challenge (LAC)

NSSE developed a scoring system from which each of these five benchmark items are represented. In this report, the benchmark scores are reported in two parts. First the benchmark scores are presented for the university overall for FY and SNR students and compared to the Carnegie peer comparison group. Second, the benchmark scores are briefly summarized by college and compared to the CSU Stanislaus overall institution-level benchmark for FY and SNR students. For details and technical notes, see *Appendix A*.

APPLICATION

Results from NSSE are useful for informing administration, support services, and the academic community about aspects of the undergraduate experience both inside and outside the classroom that can be improved upon through implementing changes in policies and practices. Moreover, the results show how undergraduate students spend their time in learning and personal development activities. These data focus attention on how well or not students achieve the desired outcomes of an undergraduate program experience. Additionally, these data provide indicators as to how well the university engages in “good practices” supporting the student learning experience.

Results also provide indicators of student experiences that are also published by the Voluntary System of Accountability (VSA). The VSA is a national initiative by public four-year institutions to publish accessible and comparable information about the undergraduate experience through a common web-based report called the *College Portrait*¹. Under the leadership of the California State University Office of the Chancellor, participation in the VSA College Portrait, as it is commonly referred, is a project embraced system-wide by an administration who shares the philosophy of public accountability and transparency.

In addition, results are used as indirect measures of student learning and development in the university Academic Program Review² reports, as well as for program assessment regarding student engagement, campus climate, and student satisfaction.

PEER COMPARISON GROUP

For each administration, NSSE allows participating institutions to select up to three peer comparison groups. For the purpose of this report, the CSU Stanislaus benchmark trends are compared to the Carnegie peer comparison group defined as institutions sharing the Basic 2005 Carnegie Classification, which are “Master’s Colleges and Universities—Medium Programs” (Carnegie Master’s/M). Of note, although normative comparisons are displayed in this report some analysis may fluctuate due to the shifting composition of the peer comparison group from year-to-year and peer comparison group population estimates have not been consistently derived.

RESPONDENT CHARACTERISTICS

This section summarizes CSU Stanislaus’ student benchmark trends over the past five administrations of NSSE. Table 1 shows the sample responses and sample sizes for each CSU Stanislaus NSSE administration. Also displayed are the benchmark scores for each of the benchmark areas by class rank: first-year and senior students. Still, the mode selected for the survey administrations affected the sample size, in that, the paper mode was selected for the 2003, 2004, and 2006 survey administrations since email communication was not the primary means of contact at that time due to limited student email addresses, allowing for a limited sample size of 600 (N=300 first-year and 300 senior students). The web-only mode was selected for the 2009 and 2011 survey administrations, thereby increasing the sample size to 3,000 overall.

¹ See at <http://www.collegeportraits.org/CA/CSU-Stanislaus>

² APR Source. CSU Stanislaus

Table 1. *Sample Size by Class Rank (%) with Benchmark Score Trend Comparisons*

Year	Mode ^a	Number of Respondents ^b			Benchmark Area ^c	CSU Stanislaus		Carnegie Peer Comparison Group	
		FY	SNR	Total N		FY	SNR	FY	SNR
2003	Paper	120	127	247	ACL	40.5	45.8	41.1	50.2
					SFI	30.3	32.6	35.7	42.4
					SCE	58.6	54.0	61.1	58.6
					LAC	50.3	53.3	52.7	56.4
2004	Paper	100	117	217	ACL	40.8	50.4	41.6	51.2
					SFI	29.5	30.9	32.3	42.5
					SCE	58.2	52.9	62.3	59.4
					EEE	24.2	30.1	25.8	38.6
					LAC	52.6	56.1	52.6	56.8
2006	Paper	62	108	170	ACL	39.7	50.8	42.4	51.8
					SFI	26.1	34.6	32.8	42.7
					SCE	57.6	56.6	60.5	58.6
					EEE	20.9	32.1	25.3	39.3
					LAC	52.1	56.4	51.7	55.9
2009	Web-only	247	435	682	ACL	44.2	52.4	44.6	53.2
					SFI	30.1	37.7	35.8	43.8
					SCE	58.7	58.5	62.8	61.1
					EEE	24.9	31.6	26.8	40.4
					LAC	52.4	56.3	53.1	57.7
2011	Web-only	223	589	812	ACL	42.3	51.4	43.1	52.1
					SFI	34.6	43.5	34.4	41.6
					SCE	61.7	57.9	62.9	59.6
					EEE	24.7	32.7	26.5	38.4
					LAC	51.1	56.2	53.4	57.4

Note. ^aMode includes *Paper* (students receive a paper survey, with an option of completing a web version), *Web-only* (students receive all correspondence by email and complete the online version). ^bNumber of respondents were gathered using a random sample of eligible FY and SNR students in 2003, 2004, and 2006 (N= 300 FY and 300 SNR students). The number of respondents in 2009 and 2011 were gathered from all eligible FY and SNR students (N=3,000). ^cExcluded from the table is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

At each administration of NSSE it is the intent of CSU Stanislaus to sample large enough numbers of FY and SNR students in order to permit the disaggregation of data analysis down to the department or degree program level. However, as can be seen the sample sizes in past administrations did not yield the desired robustness in sampling. This means, at best, the sample sizes are sufficient for institution-level trend analysis by class level, and with some exceptions, sufficient for analysis at the college-level. *Appendix B* shows the College of the Arts (COA) with insufficient sample sizes to perform a college-level trend analysis. Therefore, results for the COA are not presented at the college-level.

CSU STANISLAUS BENCHMARK ITEM COMPARISONS AND TREND ANALYSIS

In this section, we examine first the institution-level trends compared to the Carnegie peer comparison group. In the second section, we examine trends by college-level compared to the overall CSU Stanislaus benchmark. Each of the five NSSE benchmark areas, ACL, SFI, SCE, EEE and LAC, are summarized in the following figures.

Active and Collaborative Learning (ACL): The ACL benchmark is comprised of seven question items. Here, the measurement purpose is to understand student learning in a variety of contexts. The conceptual framework posits that students learn more when they are intensely involved in their education, and that collaboration with others in solving problems or mastering difficult material prepares students for the complex and unscripted problems they will encounter daily during and after college. The following items tap into the dimension of student learning in different settings.

1. Asked questions in class or contributed to class discussions
2. Made a class presentation
3. Worked with other students on projects **during class**
4. Worked with classmates **outside of class** to prepare class assignments
5. Tutored or taught other students (e.g., paid or voluntary)
6. Participated in a community-based project (e.g., service learning) as part of a regular course
7. Discussed ideas from your readings or classes with others outside of class (e.g., students, family members, co-workers, etc.)

Figure 1. Active and Collaborative Learning (ACL)
Benchmark Scores (%)

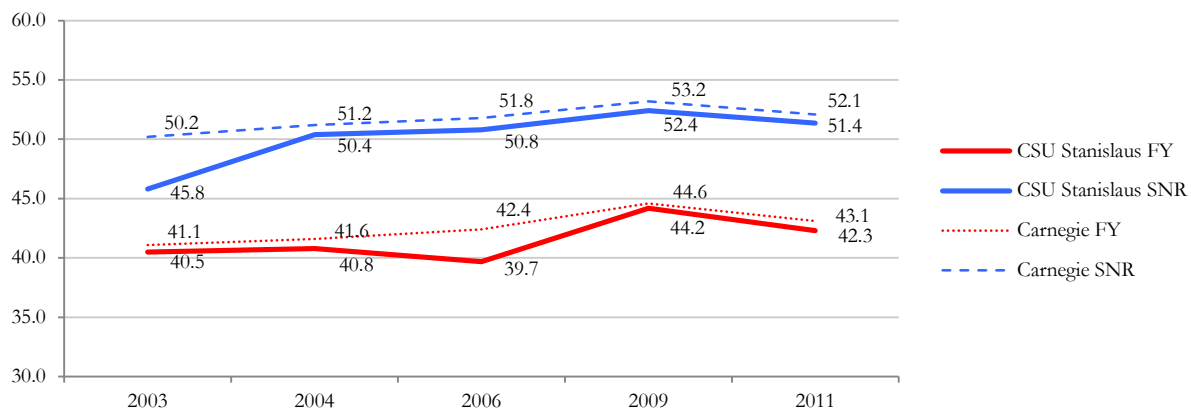


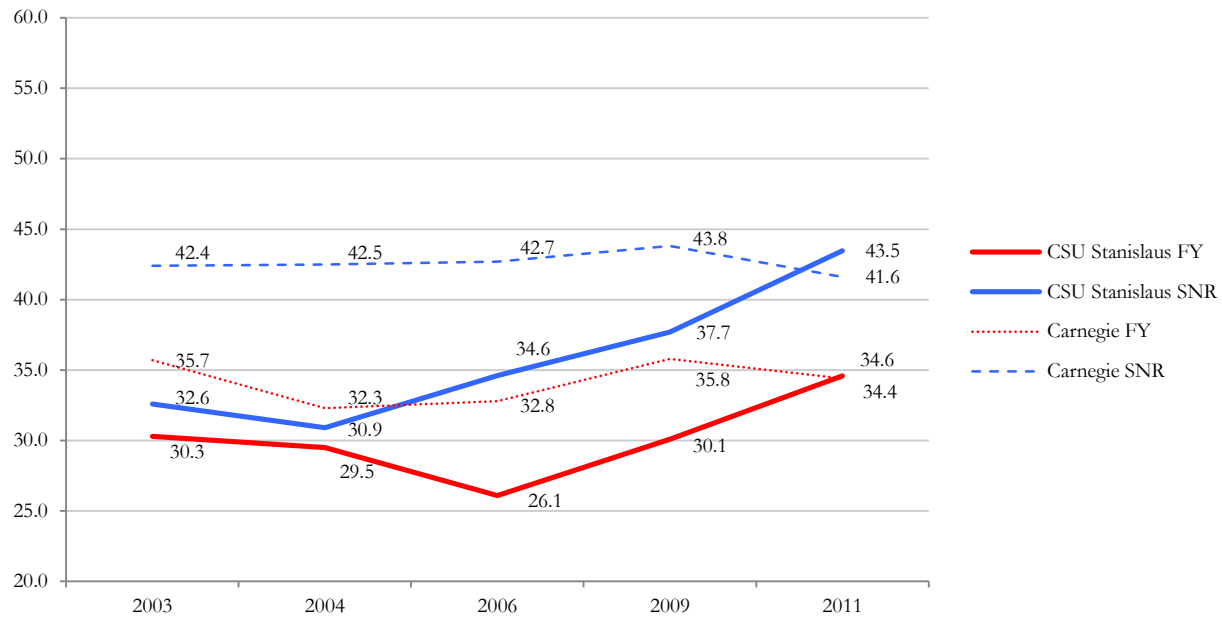
Figure 1 shows CSU Stanislaus FY student scores have trended upward, from 40.5 percent in 2003 to 42.3 percent in 2011. This is consistent with the benchmark comparison group trend, which changed from 41.1 percent in 2003 to 43.1 percent in 2011. There appears to have been no disparate gap between scores for CSU Stanislaus FY students and the peer comparison group.

Similarly, the trend for CSU Stanislaus SNR students has risen from 45.8 percent in 2003 to 51.4 percent in 2011. The comparison group, meanwhile, changed from 50.2 percent in 2003 to 52.1 percent in 2011. Here, we note significant narrowing of the gap with the peer comparison group.

Student-Faculty Interaction (SFI): The SFI benchmark is comprised of six question items. The intent is to measure the extent of student and faculty interactions from the vantage point of the student. The idea is that students learn first-hand how experts think about and solve practical problems by interacting with faculty members inside and outside the classroom. As a result, their instructors become role models, mentors, and guides for continuous, life-long learning.

1. Discussed grades or assignments with an instructor
2. Talked about career plans with a faculty member or advisor
3. Discussed ideas from your readings or classes with faculty members outside of class
4. Worked with faculty members on activities other than coursework (e.g., committees, orientation, student-life activities, etc.)
5. Received prompt written or oral feedback from faculty on your academic performance
6. Worked on a research project with a faculty member outside of course or program requirements

Figure 2. Student-Faculty Interaction (SFI) Benchmark Scores (%)



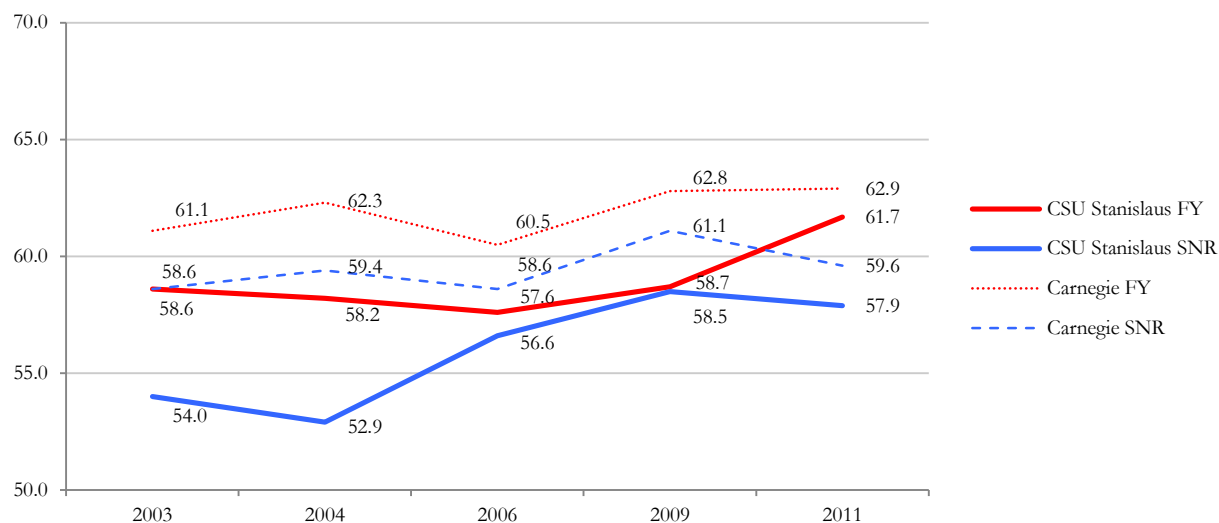
The SFI benchmark reveals CSU Stanislaus FY student scores to have trended upward in recent years. As shown in *Figure 2*, the CSU Stanislaus FY student benchmark score was 30.3 percent in 2003 and moved upward to 34.6 percent in 2011. The peer comparison group did not improve. The peer comparison group changed from 35.7 percent in 2003 to 34.4 percent in 2011. Moreover, by 2011, there is no apparent gap between the scores for CSU Stanislaus FY students and the peer comparison group. For CSU Stanislaus SNR students, the change represents an overall upward shift from 32.6 percent in 2003 to 43.5 percent in 2011. Remarkable, however, is the previous wide gap is closed by 2011. The 2011 CSU Stanislaus SNR score surpassed the peer comparison group score.

Supportive Campus Environment (SCE): The SCE benchmark is comprised of six question items. Together these items measure whether 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.

1. Campus environment provides the support you need to help you succeed academically
2. Campus environment helps you cope with your non-academic responsibilities (e.g., work, family, etc.)
3. Campus environment provides the support you need to thrive socially
4. Quality of relationships with other students
5. Quality of relationships with faculty members
6. Quality of relationships with administrative personnel and offices

As presented in *Figure 3*, the trend for SCE benchmark shows CSU Stanislaus FY student scores changed from 58.6 percent in 2003 to 61.7 percent in 2011. The trend for CSU Stanislaus SNR students changed from 54.0 percent in 2003 to 57.9 percent in 2011. The peer comparison group scores for FY students also changed somewhat, from 61.1 percent in 2003 to 62.9 percent in 2011. A slight increase however is noted for peer comparison group SNR students, from 58.6 percent in 2003 to 59.6 percent in 2011. Overall, there was more movement toward narrowing the gap between the scores for CSU Stanislaus SNR students and peer comparison group than there was for the CSU Stanislaus FY student and the peer comparison group scores.

Figure 3. Supportive Campus Environment (SCE) Benchmark Scores (%)



Enriching Educational Experiences (EEE): The EEE benchmark is comprised of twelve question items. These items attempt to measure learning opportunities inside and outside of the classroom. The theory is that complementary learning opportunities enhance academic programs. Diversity experiences teach students valuable lessons 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.

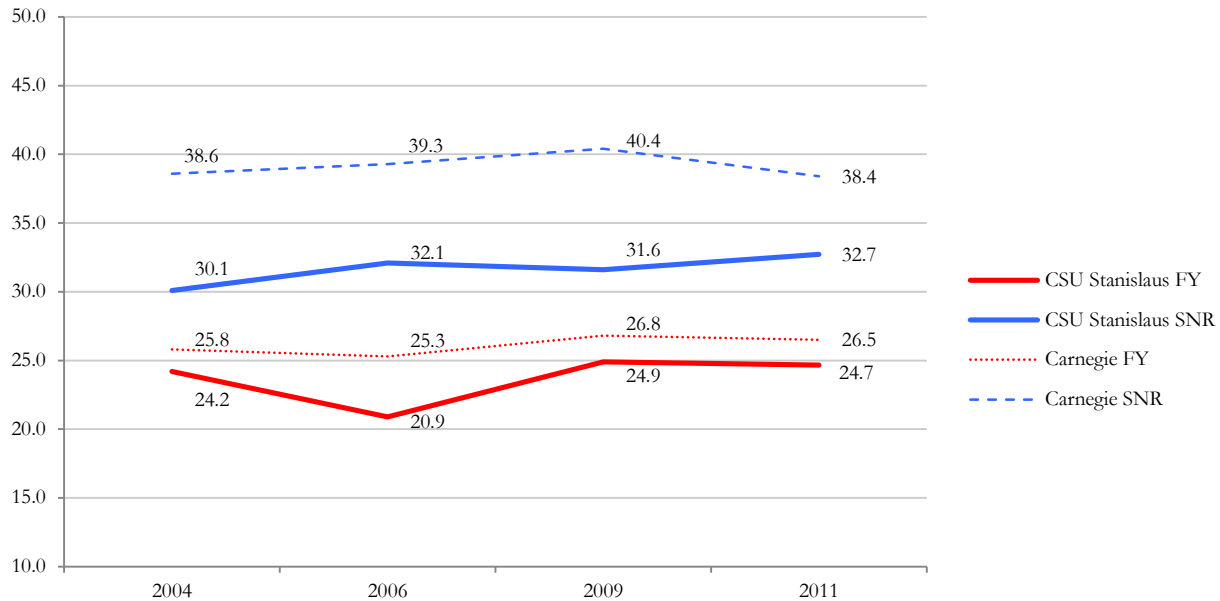
1. Participating in co-curricular activities (e.g., organizations, campus publications, student government, social fraternity or sorority, etc.)
2. Practicum, internship, field experience, co-op experience, or clinical assignment
3. Community service or volunteer work
4. Foreign language coursework
5. Study abroad
6. Independent study or self-designed major
7. Culminating senior experience (e.g., capstone course, senior project or thesis, comprehensive exam, etc.)
8. Serious conversations with students of different religious beliefs, political opinions, or personal values
9. Serious conversations with students of a different race or ethnicity than your own
10. Using electronic medium (e.g., listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment
11. Campus environment encouraging contact among students from different economic, social, and racial or ethnic backgrounds
12. Participate in a learning community or some other formal program where groups of students take two or more classes together

The EEE, a rather complex construct, attempts to measure the extent of learning opportunities and activities that occur inside and outside of the classroom experience. The EEE benchmark thus reveals scores that are much lower for CSU Stanislaus FY and SNR students compared to the peer comparison group. The difference in scores between the peer comparison group and CSU Stanislaus SNR students is consistently large overtime.

As shown in *Figure 4*, for CSU Stanislaus FY student score the change is from 24.2 percent in 2004 to 24.7 percent in 2011, compared to 25.8 percent for the peer comparison group in 2004 and 26.5 percent in 2011. However, for CSU Stanislaus SNR student score the change is slight from 30.1 percent in 2004 to 32.7

percent in 2011. The change is also slight for the peer comparison group SNR students (38.6 percent in 2004, and 38.4 percent in 2011), but the magnitude of scores is much larger and gap much wider between CSU Stanislaus SNR students and the peer comparison group compared to CSU Stanislaus FY students and peers. Of note, the 2003 EEE scores are not provided throughout this report due to significantly altered response options for several EEE items in 2004, creating incompatible item comparison for the subsequent years.

Figure 4. Enriching Educational Experiences (EEE) Benchmark Scores (%)



Note. Excluded from the graph is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

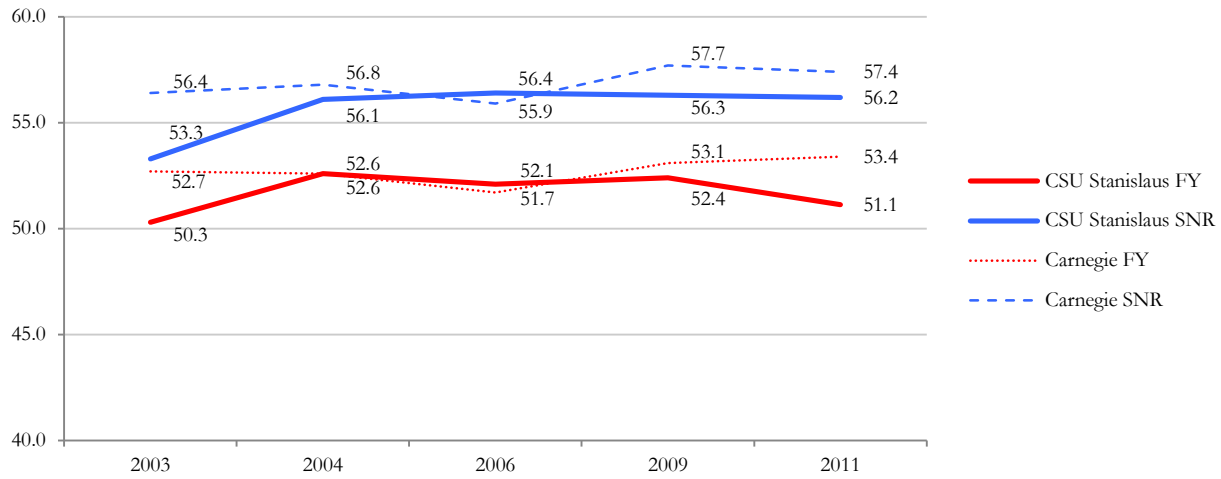
Level of Academic Challenge (LAC): The LAC benchmark is comprised of eleven question items. The items measure the extent to which the institution provides a challenging intellectual and creative learning environment for students. The LAC benchmark results are also used for discussion and planning about whether or not the University promotes high levels of student achievement by emphasizing the importance of academic effort and setting high expectations for student performance.

1. Preparing for class (e.g., studying, reading, writing, doing homework or lab work, etc. related to academic program)
2. Number of assigned textbooks, books, or book-length packs of course readings
3. Number of written papers or reports of 20 pages or more
4. Number of written papers or reports of between 5 and 19 pages
5. Number of written papers or reports of fewer than 5 pages
6. Coursework emphasizes: **Analysis** of the basic elements of an idea, experience or theory
7. Coursework emphasizes: **Synthesis** and organizing of ideas, information, or experiences into new, more complex interpretations and relationships
8. Coursework emphasizes: **Making of judgments** about the value of information, arguments, or methods
9. Coursework emphasizes: **Applying** theories or concepts to practical problems or in new situations
10. Working harder than you thought you could to meet an instructor's standards or expectations
11. Campus environment emphasizes: Spending significant amount of time studying and on academic work

As presented in Figure 5, the LAC benchmark reveals CSU Stanislaus FY and SNR student scores to have improved slightly. For CSU Stanislaus FY students the change was from 50.3 percent in 2003 to 51.1 percent in 2011. For CSU Stanislaus SNR students the change was from 53.3 percent in 2003 to 56.2 percent in 2011.

The peer comparison group scores also revealed slight upward changes, from 52.7 percent in 2003 to 53.4 percent in 2011 for FY students; peer comparison group SNR student scores changed from 56.4 percent in 2003 to 57.4 percent in 2011.

Figure 5. Level of Academic Challenge (LAC) Benchmark Scores (%)



CONCLUDING REMARKS

The overall trend is positive for both CSU Stanislaus FY and SNR students. However, if we compare with the peer group scores, we find the benchmark areas of Supportive Campus Environment (SCE), Enriching Educational Experiences (EEE), and Level of Academic Challenge (LAC) to be activities requiring some attention. While these benchmark areas show a mix of improvement for FY and SNR students at CSU Stanislaus, at the same time, the trend lines are persistently below the peer group comparison scores.

SUMMARY OF COLLEGE-LEVEL AND INSTITUTION-LEVEL BENCHMARK TREND SCORES

This section provides a summary of college level trends for each the five benchmarks of Effective Educational Practice. The college FY and SNR benchmark scores are displayed in comparison to the overall institution-level scores. The section includes a brief summary table to indicate the tendency of change over time (i.e., upward change [+], downward change [-], or no change [NC]) as well as a summary indicator if the college benchmark for 2011 was *At*, *Above*, or *Below* the university-wide 2011 benchmark.

College of Business Administration

- Active and Collaborative Learning (ACL): The trend in benchmark scores (*Figure 6*) improved in the College of Business Administration for both FY and SNR students. The trend pattern is similar to the institution-level trend.
- Student-Faculty Interaction (SFI): *Figure 7* shows the FY student benchmark score improved from 26.9 percent in 2003 to 34.4 percent in 2011. The SNR score also improved from 29.5 percent in 2003 to 37.9 percent in 2011. While the FY score is at the same level as the institution-level score, the SNR score is below.
- Supportive Campus Environment (SCE): The FY student benchmark score trended upward from 55.8 percent in 2003 to 59.1 percent in 2011 (*Figure 8*). The SNR student benchmark score also improved, changing from 49.5 percent in 2003 to 56.9 percent in 2011. Although both FY and SNR scores displayed a positive upward change, both remain below the institution-level scores.
- Enriching Educational Experiences (EEE): While the benchmark score for FY students has trended upward (*Figure 9*), it is below the institution-level benchmark score. Meanwhile, the SNR score improved slightly, yet still lower than the institution-level benchmark score.
- Level of Academic Challenge (LAC): As demonstrated in *Figure 10*, the FY student benchmark score changed from 51.9 percent in 2003 to 52.3 percent in 2011, while the SNR student score improved slightly better, changing from 49.0 percent in 2003 to 53.3 percent in 2011.

Table 2. Summary Table for First-Year and Senior Student Benchmark Scores, College of Business Administration

Benchmark Area	Trend: Up(+), Down(-), or No Change(NC) 2003 to 2011		College Score comparison with 2011 Institution-level Score (At*, Above, Below)	
	First Year	Senior	First Year	Senior
ACL	+	+	At	At
SFI	+	+	At	Below
SCE	+	+	Below	Below
EEE**	-	+	Above	Below
LAC	+	+	Above	Below

Note. * "At" is determined if within ± 1.0 difference from institution score.

**Excluded from the table is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

Figure 6. Trend ACL Benchmark Scores for the College of Business Administration Compared to Institutional-level Scores.

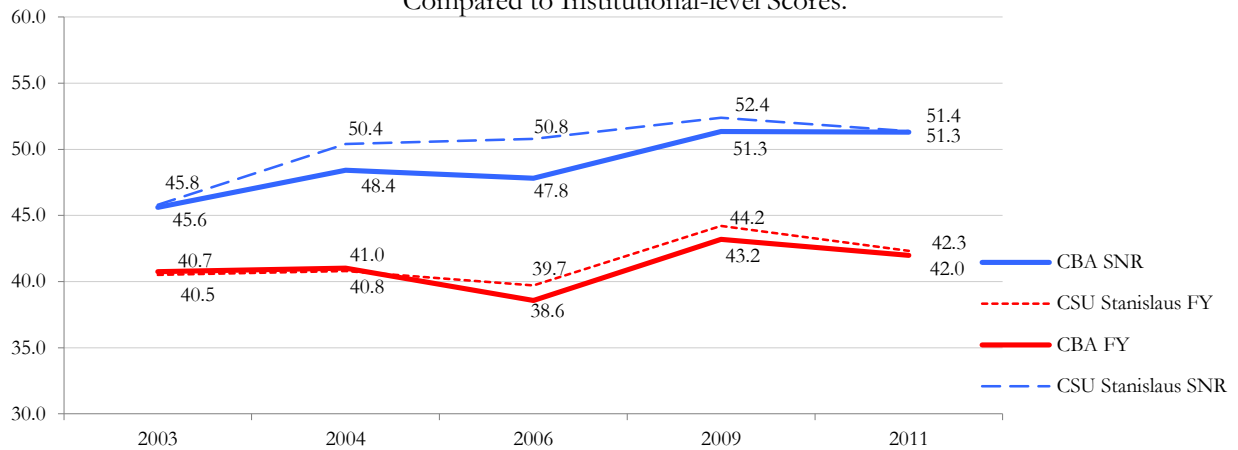


Figure 7. Trend SFI Benchmark Scores for the College of Business Administration Compared to Institutional-level Scores.

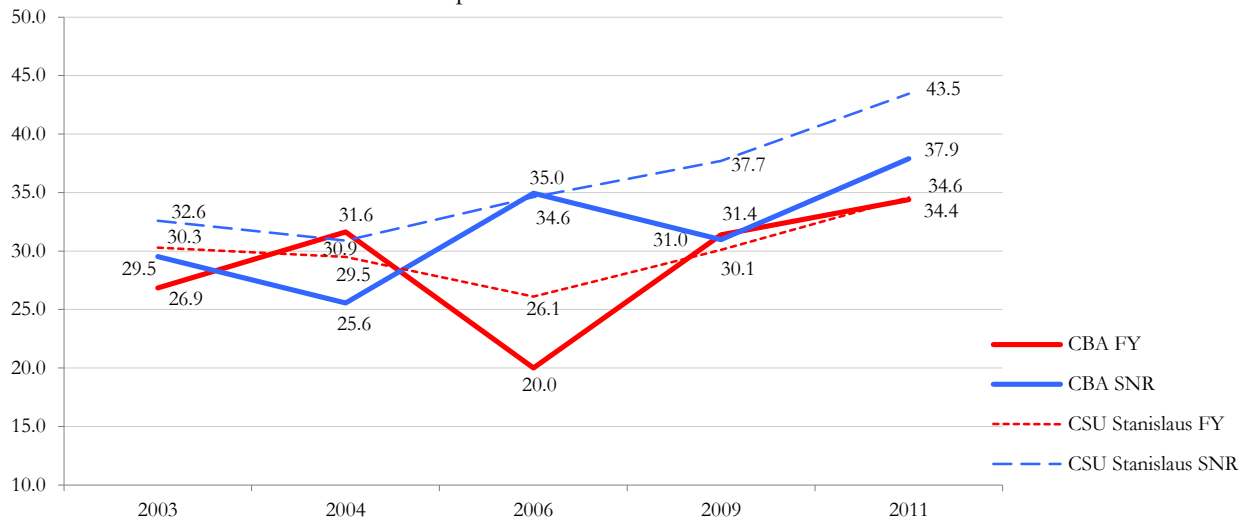


Figure 8. Trend SCE Benchmark Scores for the College of Business Administration Compared to Institutional-level Scores.

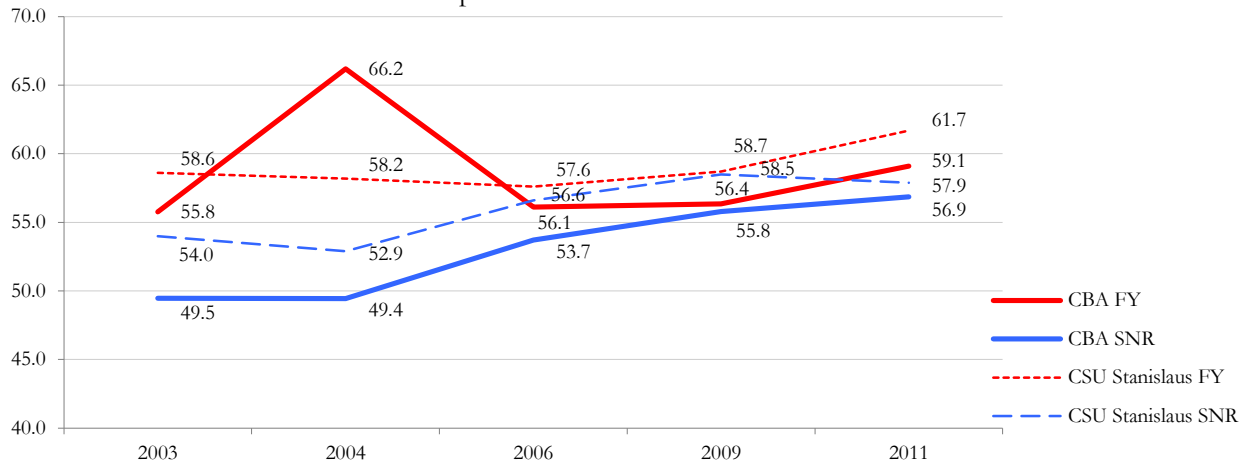
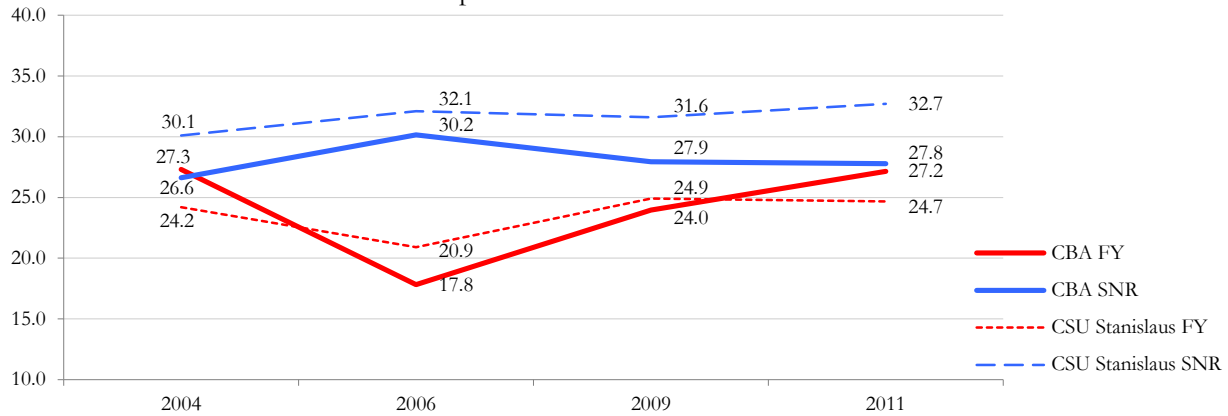
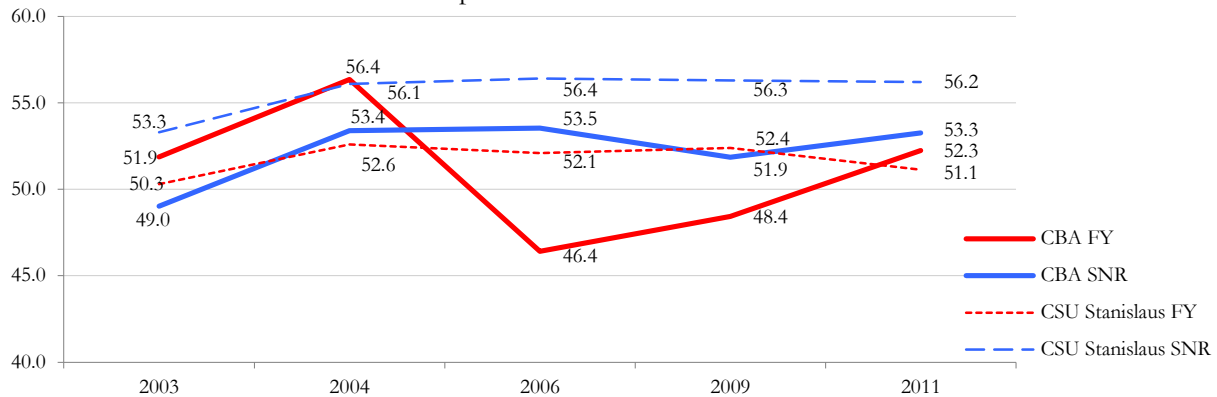


Figure 9. Trend EEE Benchmark Scores for the College of Business Administration Compared to Institutional-level Scores.



Note. Excluded from the graph is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

Figure 10. Trend LAC Benchmark Scores for the College of Business Administration Compared to Institutional-level Scores.



College of Education

- Active and Collaborative Learning (ACL): *Figure 11* shows the FY student benchmark trend changed from 44.4 percent in 2003 to 53.1 percent in 2009 but only to drop to 49.9 percent in 2011. Even so, the FY student score is above the institution-level score. The SNR student benchmark score also trended upward and above the institution-level score.
- Student-Faculty Interaction (SFI): As presented in *Figure 12*, FY student benchmark scores in the College of Education improved from 29.2 percent in 2003 to 37.6 percent in 2011. The SNR student benchmark scores also improved from 29.6 percent in 2003 to 42.0 percent in 2011. Of note, however, by 2011 the FY student benchmark scores for the college exceeded the institution-level scores.
- Supportive Campus Environment (SCE): The FY student benchmark score has trended upward to exceed the institution-level score. As seen in *Figure 13*, FY student benchmark score for the College of Education (66.9 percent) exceeded the institution-level scores (61.7 percent) by 2011. The SNR student benchmark score (56.5 percent), however, is slightly below the institution-level score in 2011 (57.9 percent).
- Enriching Educational Experiences (EEE): The FY student benchmark trend for the college shows a very slight change upward yet slightly below the institution-level score. As observed in *Figure 14* there is virtually no change for SNR students. The pattern mirrors the institution-level trend.
- Level of Academic Challenge (LAC): As shown in *Figure 15*, in 2003 the FY student benchmark score was 46.4 percent and by 2011 the score improved to 52.8 percent. The SNR student benchmark scores also improved for the college, from 54.0 percent in 2003 to 56.2 percent in 2011. By 2011, however, the FY score was below the institution-level score, while the college SNR score was about the same as the institution-level score.

Table 3. Summary Table for First-Year and Senior Student Benchmark Scores, College of Education

Benchmark Area	Trend: Up(+), Down(-), or No Change(NC) 2003 to 2011		College Score comparison with 2011 Institution-level Score (At*, Above, Below)	
	First Year	Senior	First Year	Senior
ACL	+	+	Above	Above
SFI	+	+	Above	Below
SCE	+	+	Above	Below
EEE**	+	NC	Below	At
LAC	+	+	Below	At

Note. * "At" is determined if within ± 1.0 difference from institution score.

**Excluded from the table is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

Figure 11. Trend ACL Benchmark Scores for the College of Education Compared to Institutional-level Scores.

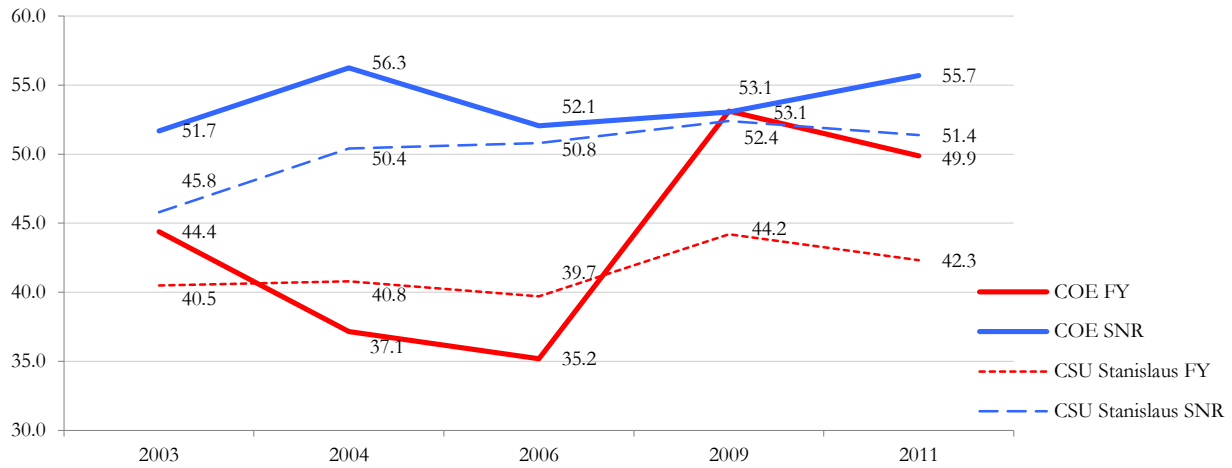


Figure 12. Trend SFI Benchmark Scores for the College of Education Compared to Institutional-level Scores.

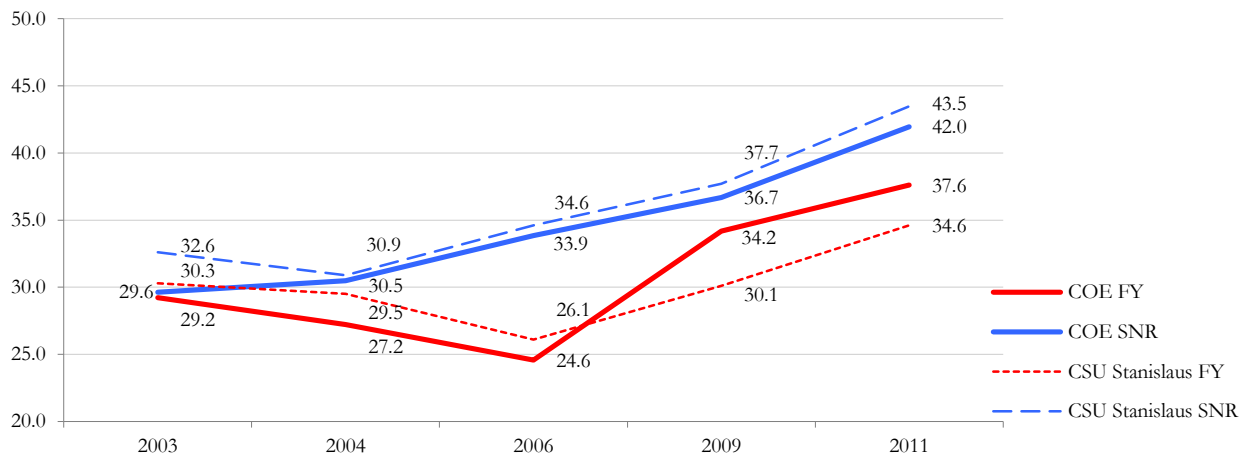


Figure 13. Trend SCE Benchmark Scores for the College of Education Compared to Institutional-level Scores.

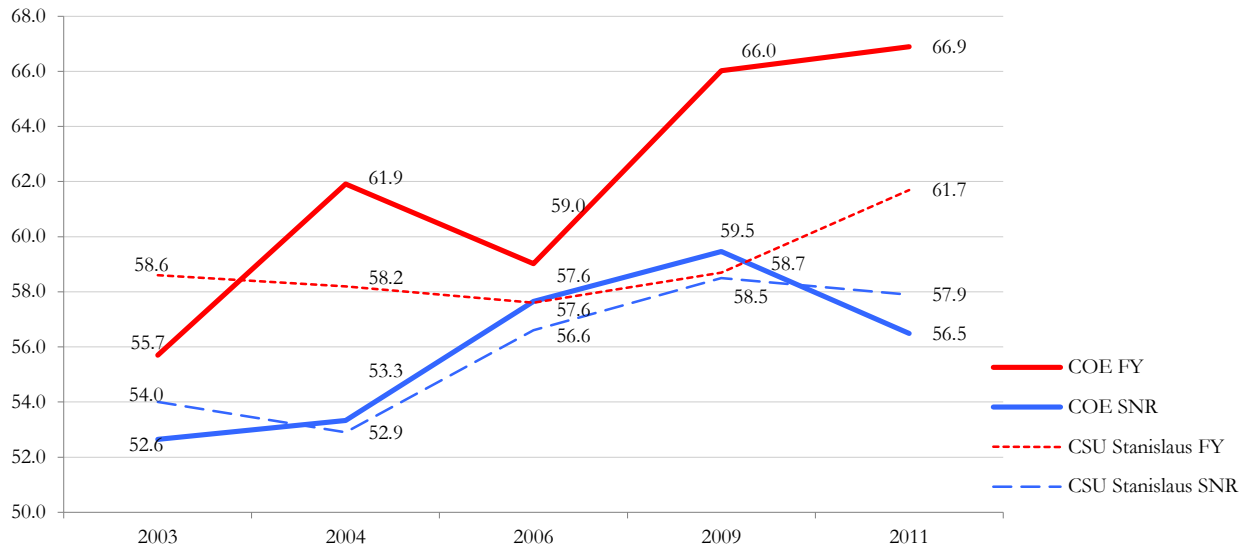
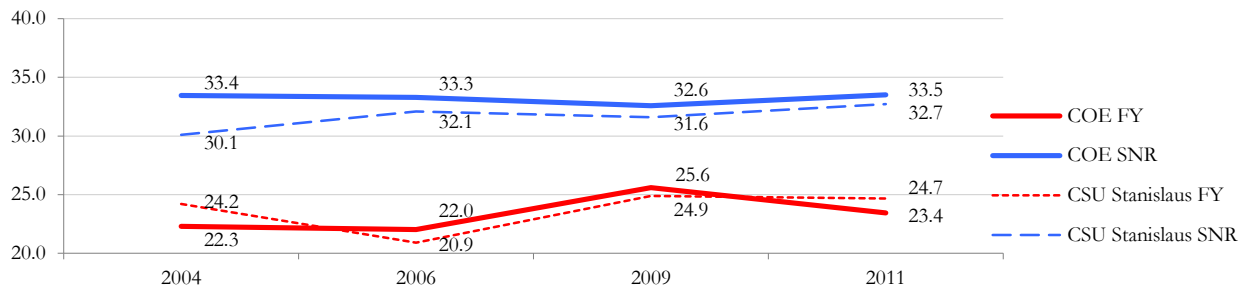
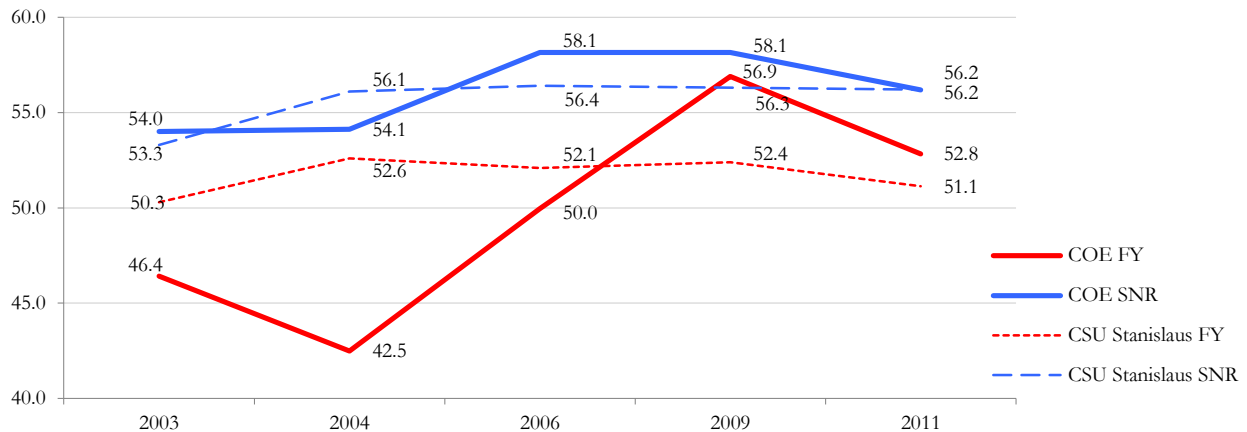


Figure 14. Trend EEE Benchmark Scores for the College of Education Compared to Institutional-level Scores.



Note. Excluded from the graph is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

Figure 15. Trend LAC Benchmark Scores for the College of Education Compared to Institutional-level Scores.



College of Human and Health Sciences

- **Active and Collaborative Learning (ACL):** While the trend for both FY and SNR student benchmark scores in the College of Human and Health Sciences show improvement, the SNR trend is much more substantial. As displayed in *Figure 16*, benchmark scores for FY students trended in much the same direction as institution-level scores. The SNR student score trended from 45.5 percent in 2003 to 50.0 percent in 2011. Although both FY and SNR scores improved during the trend period, both were slightly below the institution-level scores by 2011.
- **Student-Faculty Interaction (SFI):** A significant shift upward in benchmark scores is noted for both FY and SNR students in the College of Human and Health Sciences (*Figure 17*). The FY student score increased from 22.2 percent in 2003 to 31.9 percent in 2011 compared to the institution-level change from 30.3 percent in 2003 to 34.6 percent in 2011. In comparison, the SNR student benchmark score changed from 37.0 percent in 2003 to 41.9 percent in 2011 compared to 32.6 percent and 43.5 percent at the institution-level.
- **Supportive Campus Environment (SCE):** As presented in *Figure 18*, the FY student benchmark trend shows wide variation in scores when compared to the institution-level scores and is below the institution score by 2011. The SNR benchmark scores meanwhile trended upward to be at parity with the institution-level scores by 2011.
- **Enriching Educational Experiences (EEE):** *Figure 19* shows the benchmark scores for both FY and SNR students in the College of Human and Health Sciences steadily moving upward, with the SNR student scores changing significantly to exceed the institution-level scores by 2011.
- **Level of Academic Challenge (LAC):** As shown in *Figure 20*, benchmark scores for FY students trended up then down to 49.0 percent by 2011. The SNR student score meanwhile moved upward and then slightly down by 2011.

Table 4. Summary Table for First-Year and Senior Student Benchmark Scores, College of Human and Health Sciences

Benchmark Area	Trend: Up(+), Down(-), or No Change(NC) 2003 to 2011		College Score comparison with 2011 Institution-level Score (At*, Above, Below)	
	First Year	Senior	First Year	Senior
ACL	NC	+	Below	Below
SFI	+	+	Below	Below
SCE	-	+	Below	At
EEE**	+	+	At	Below
LAC	-	+	Below	Above

Note. * "At" is determined if within ± 1.0 difference from institution score.

**Excluded from the table is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

Figure 16. Trend ACL Benchmark Scores for the College of Human and Health Sciences Compared to Institutional-level Scores.

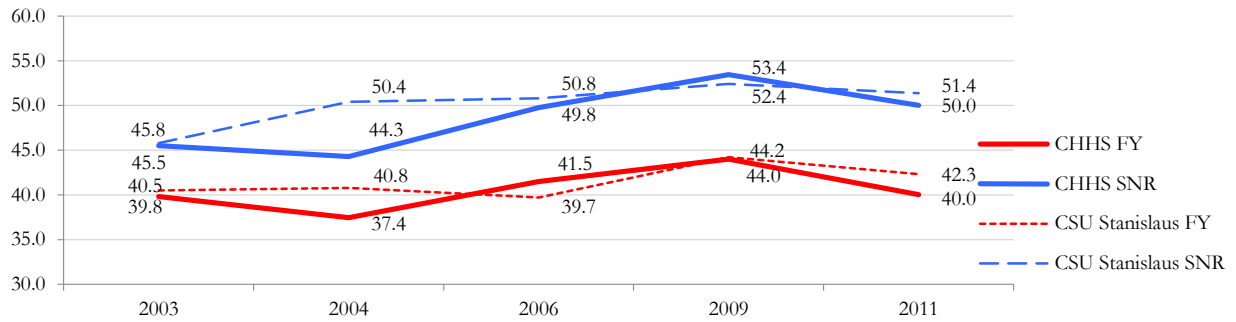


Figure 17. Trend SFI Benchmark Scores for the College of Human and Health Sciences Compared to Institutional-level Scores.

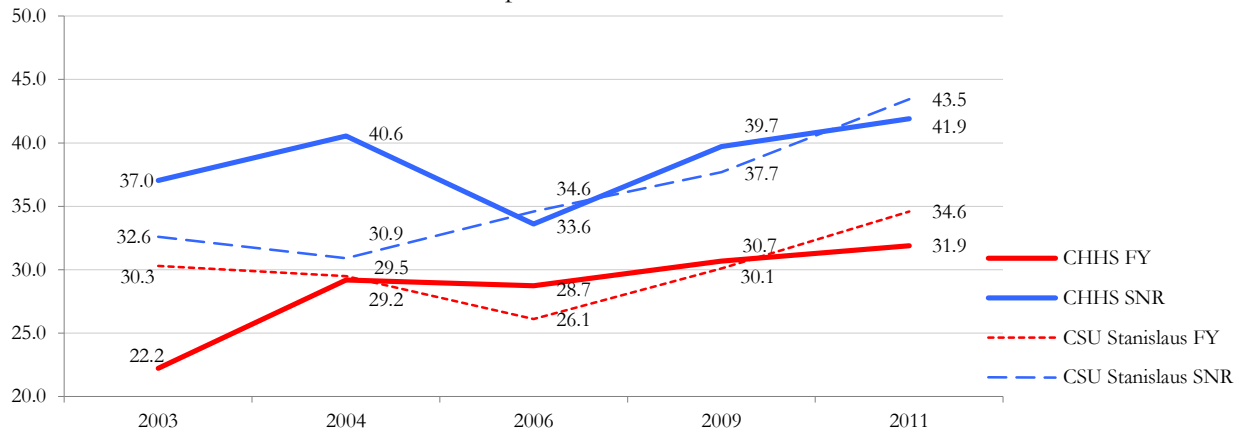


Figure 18. Trend SCE Benchmark Scores for the College of Human and Health Sciences Compared to Institutional-level Scores.

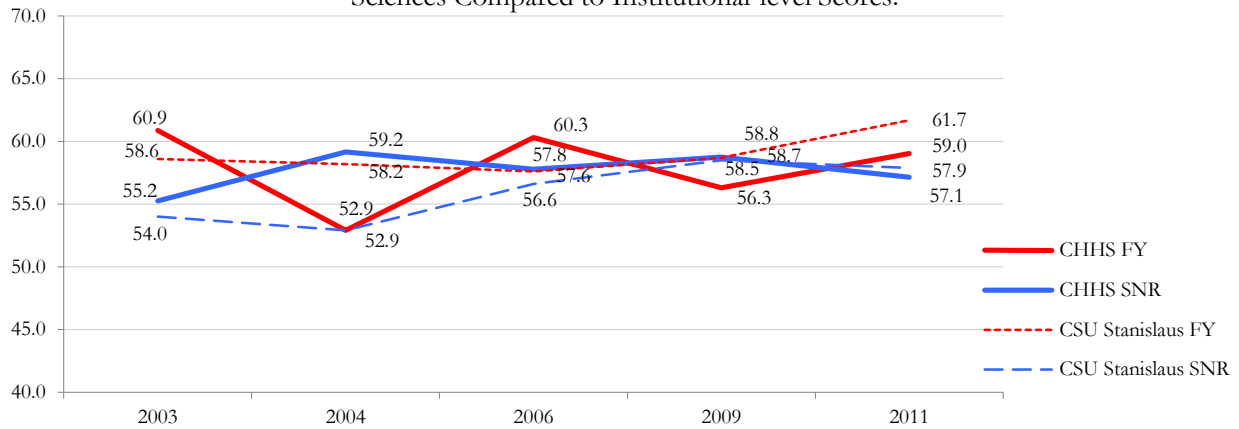
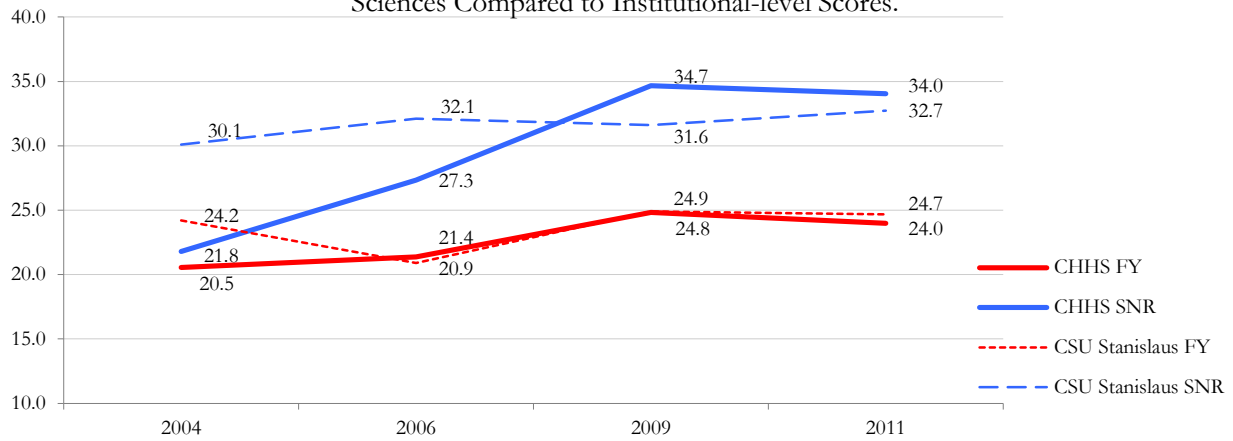
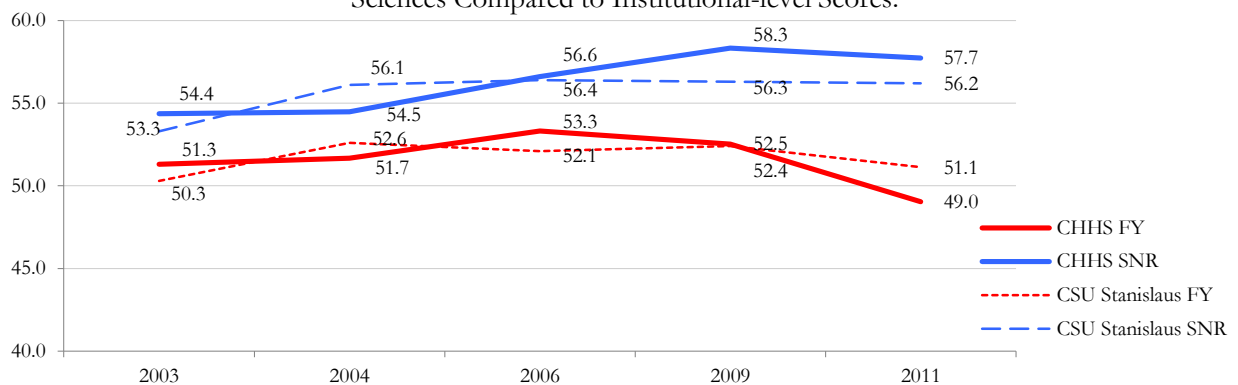


Figure 19. Trend EEE Benchmark Scores for the College of Human and Health Sciences Compared to Institutional-level Scores.



Note. Excluded from the graph is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

Figure 20. Trend LAC Benchmark Scores for the College of Human and Health Sciences Compared to Institutional-level Scores.



College of Humanities and Social Sciences

- Active and Collaborative Learning (ACL): As seen in *Figure 21*, the benchmark scores for FY and SNR students have improved. The trend is upward. The FY student benchmark score is slightly above the institution-level mark, as is the college SNR benchmark score.

Both the college FY and SNR student benchmark scores improved significantly, with FY student benchmark scores changing from 35.8 percent in 2003 to 43.7 percent in 2011; and the SNR student benchmark score changed from 42.1 percent in 2003 to 52.2 percent in 2011.

- Student-Faculty Interaction (SFI): Benchmark scores for FY students in the College of Humanities and Social Sciences improved to exceed the institution-level score. As shown in *Figure 22*, the trend is also positive for SNR student benchmark scores, which remain consistently above the institution-level scores.
- Supportive Campus Environment (SCE): *Figure 23* reveals consistently higher FY student benchmark scores compared to overall institution-level scores. The trend for SNR students also shows improvement to exceed the institution-level trend and score.
- Enriching Educational Experiences (EEE): *Figure 24* shows the FY student benchmark score is above the institution-level score; similarly, the SNR student scores have trended strongly above the institution-level scores.
- Level of Academic Challenge (LAC): As shown in *Figure 25*, the upward FY benchmark trend score dropped in 2011, and is virtually at the same level as the institution-level score. The SNR benchmark, meanwhile, has maintained an upward trend, above the institution-level score.

Table 5. Summary Table for First-Year and Senior Student Benchmark Scores, College of Humanities and Social Sciences

Benchmark Area	Trend: Up(+), Down(-), or No Change(NC) 2003 to 2011		College Score comparison with 2011 Institution-level Score (At*, Above, Below)	
	First Year	Senior	First Year	Senior
ACL	+	+	Above	At
SFI	+	+	Above	Above
SCE	+	+	Above	Above
EEE**	+	+	Above	Above
LAC	NC	+	At	Above

Note. * "At" is determined if within ± 1.0 difference from institution score.

**Excluded from the table is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

Figure 21. Trend ACL Benchmark Scores for the College of Humanities and Social Sciences Compared to Institutional-level Scores.

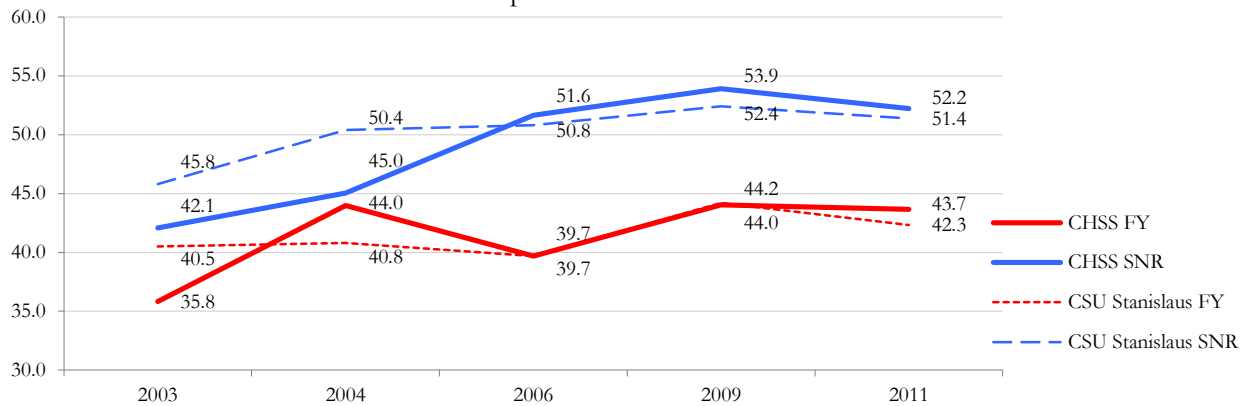


Figure 22. Trend SFI Benchmark Scores for the College of Humanities and Social Sciences Compared to Institutional-level Scores.

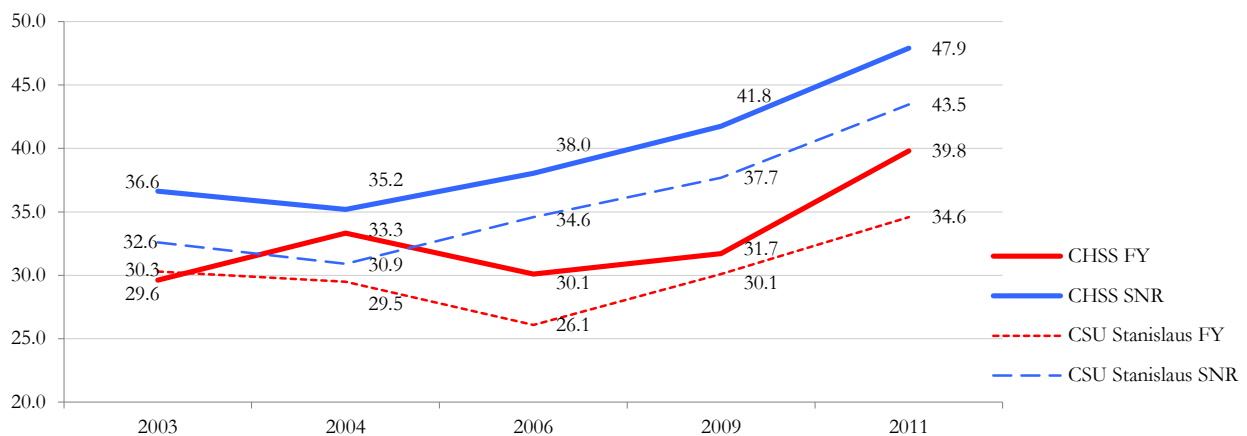


Figure 23. Trend SCE Benchmark Scores for the College of Humanities and Social Sciences Compared to Institutional-level Scores.

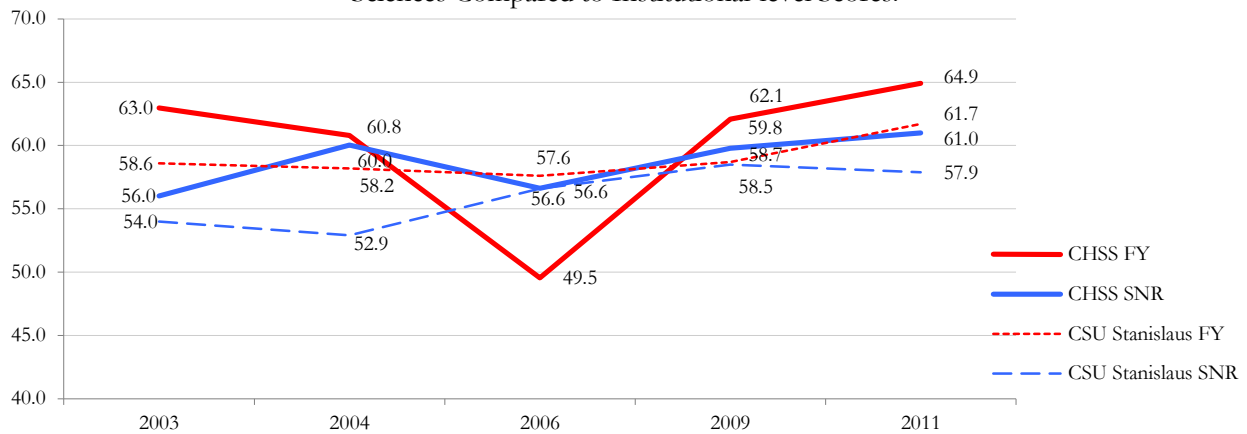
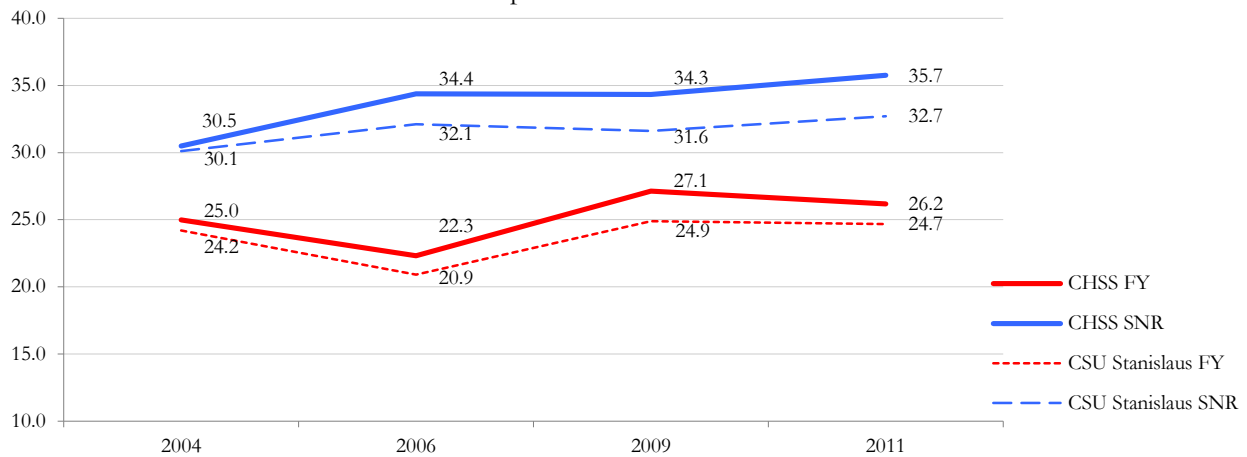
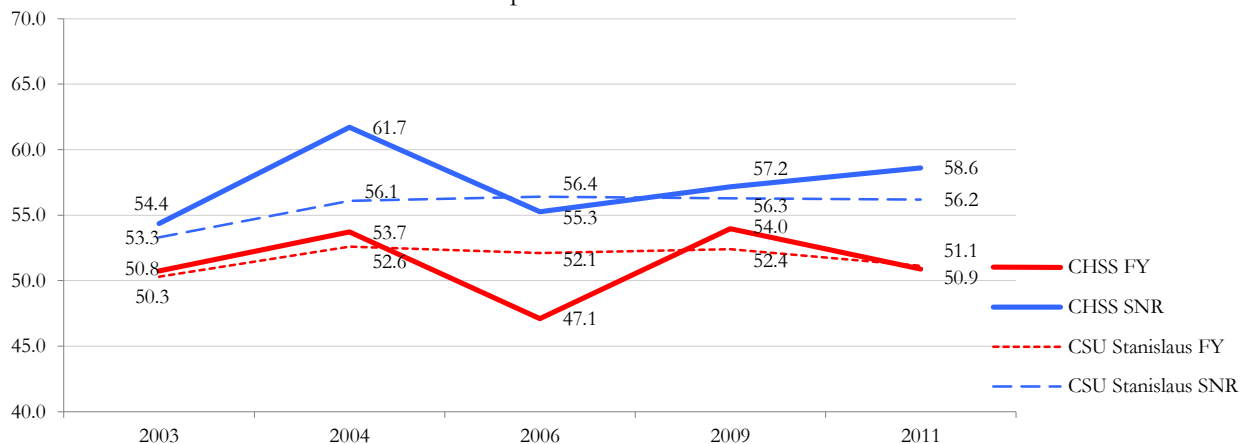


Figure 24. Trend EEE Benchmark Scores for the College of Humanities and Social Sciences Compared to Institutional-level Scores.



Note. Excluded from the graph is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

Figure 25. Trend LAC Benchmark Scores for the College of Humanities and Social Sciences Compared to Institutional-level Scores.



College of Natural Sciences

- Active and Collaborative Learning (ACL): The trend line in *Figure 26* shows FY student scores improved to be approximately the same level as the institution-level score. The SNR student scores, however, declined to be below the institution-level score.
- Student-Faculty Interaction (SFI): As presented in *Figure 27*, the FY student score trended upward for the college. The SNR student benchmark score also trended upward to be at parity with the institution-level score.
- Supportive Campus Environment (SCE): *Figure 28* shows the FY student benchmark score steadily increased and slightly above the institution-level score. Comparatively, the SNR student score for the college decreased slightly during the trend period.
- Enriching Educational Experiences (EEE): The FY student score for the college showed no improvement (*Figure 29*). The SNR student benchmark scores also trended lower. Both FY and SNR trends mirror the institution-level pattern.
- Level of Academic Challenge (LAC): *Figure 30* shows a decline in the FY student benchmark scores. The SNR student benchmark scores also trended downward.

Table 6. Summary Table for First-Year and Senior Student Benchmark Scores, College of Natural Sciences

Benchmark Area	Trend: Up(+), Down(-), or No Change(NC) 2003 to 2011		College Score comparison with 2011 Institution-level Score (At*, Above, Below)	
	First Year	Senior	First Year	Senior
ACL	+	-	At	Below
SFI	+	+	At	At
SCE	+	-	At	Below
EEE**	-	-	At	Below
LAC	-	NC	Above	Below

Note. * "At" is determined if within ± 1.0 difference from institution score.

** Excluded from the table is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

Figure 26. Trend ACL Benchmark Scores for the College of Natural Sciences Compared to Institutional-level Scores.

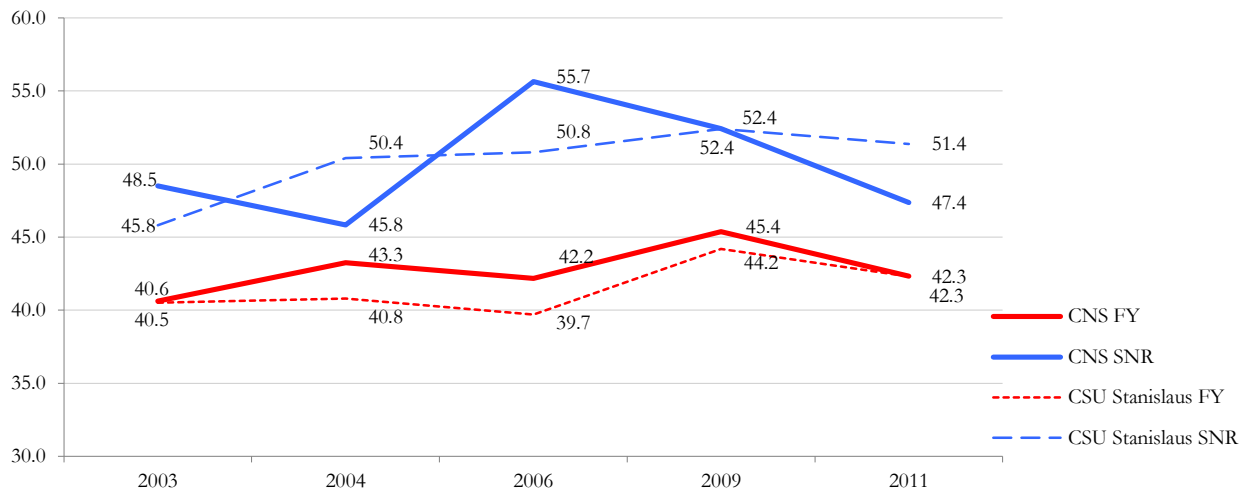


Figure 27. Trend SFI Benchmark Scores for the College of Natural Social Sciences Compared to Institutional-level Scores.

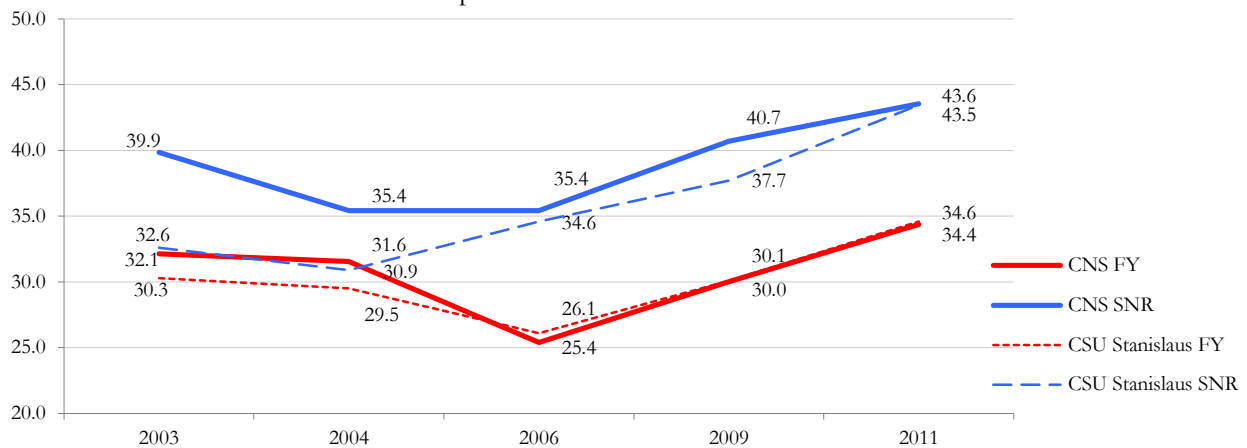


Figure 28. Trend SCE Benchmark Scores for the College of Natural Sciences Compared to Institutional-level Scores.

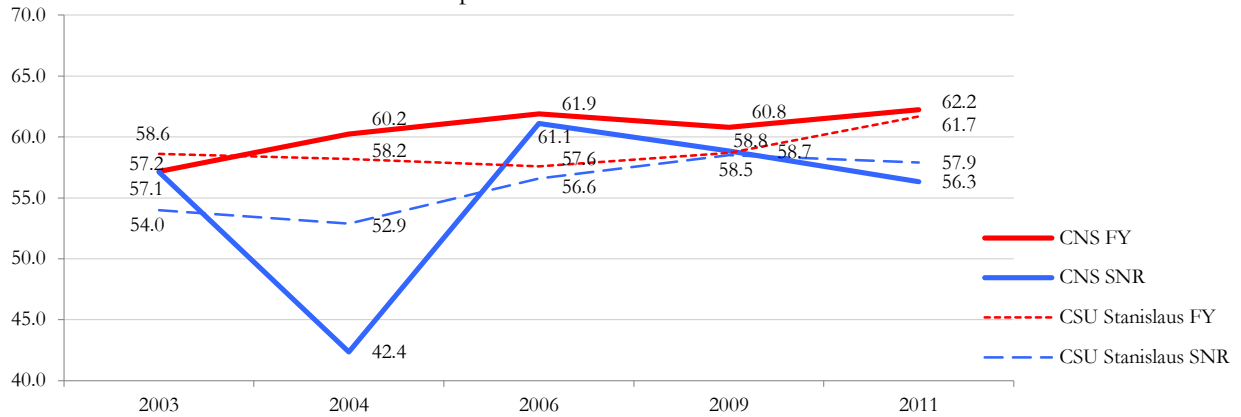
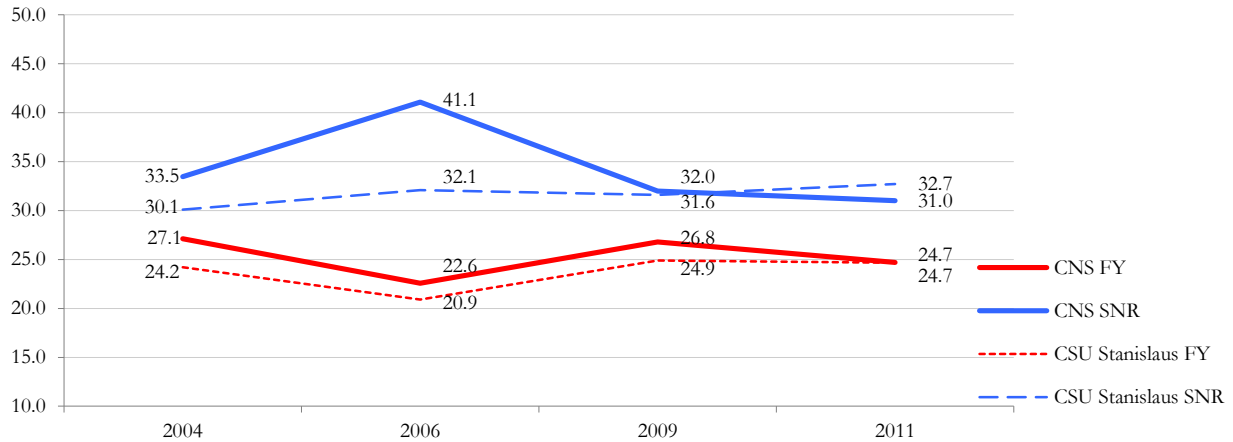
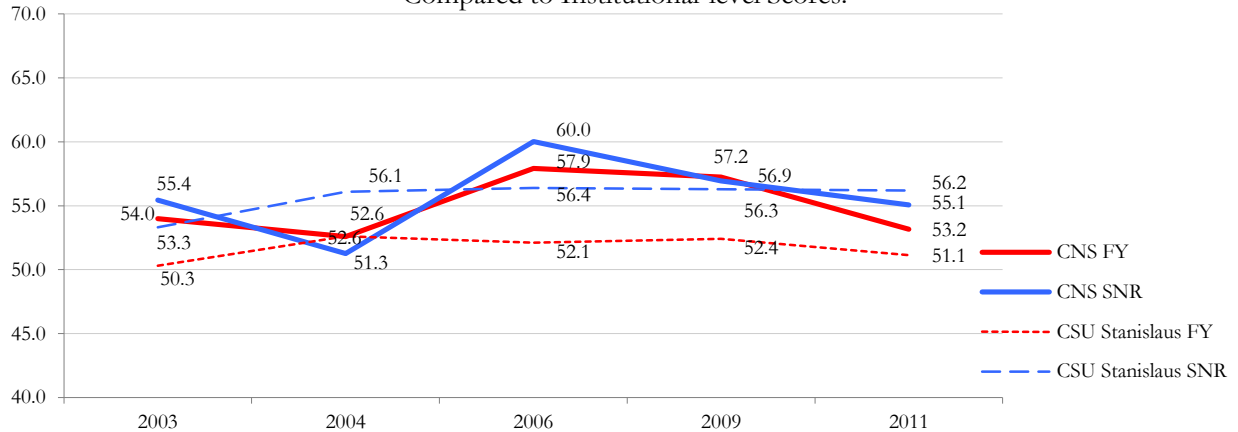


Figure 29. Trend EEE Benchmark Scores for the College of Natural Sciences Compared to Institutional-level Scores.



Note. Excluded from the graph is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.

Figure 30. Trend LAC Benchmark Scores for the College of Natural Sciences Compared to Institutional-level Scores.



References

Indiana Univ., B. n. (2001). *Improving the College Experience: National Benchmarks of Effective Educational Practice. NSSE 2001 Report. National Survey of Student Engagement: The College Student Report*. Retrieved from EBSCOhost.

Indiana Univ., Center for Postsecondary Research. (2011). *NSSE: About NSSE*. Retrieved from <http://nsse.iub.edu/html/about.cfm>

Appendices

Appendix A: Technical Notes

Benchmark Score Development and Calculation

It is not uncommon in the design of large-scale surveys to employ large batteries of items, indexes, or scales. However, the result may be the realization that too many question-items are redundant, viz., they are measuring the same thing and therefore correlated with one another. It is thus possible through analytical and statistical procedures to reduce the number of items from say, six redundant items to two or three items that are just as well theoretically in measuring the construct. NSSE employed such an exercise called, principal component analysis.

NSSE thus used a principal component analysis procedure to explore and eventually adopt the five benchmark areas. Principal component analysis is simply a variable reduction procedure that is used to develop a smaller number of artificial variables (called principal components) that will account for most of the variance in the observed variables. Procedurally, principal component analysis is virtually identical in many respects to the procedures employed in exploratory factor analysis. While both analysis methods are variable reduction methods, there is at least one important significant conceptual difference between the two procedures. The most important difference is that principal factor analysis deals with the assumption of an underlying causal structure, whereas principal component analysis does not.

Factor analysis assumes that the co-variation in the observed variables is due to the presence of one or more latent variables (factors) that exert causal influence on these observed variables. Researchers use factor analyses when they believe that certain latent factors exist that exert causal influence on the observed variables they are studying. Exploratory factor analysis helps the researcher identify the number and nature of these latent factors. In contrast, principal component analysis makes no assumption about an underlying causal model.

After the principal components were identified, NSSE developed benchmark scoring to allow comparisons of the host institution with other institutions in a peer comparison group, as well as allowing group comparisons (assuming the group means are normally distributed). NSSE benchmarks are computed (standardized) on a 0 to 100-point scale and use only randomly sampled students from each year's data.

The construction of the NSSE Benchmarks has four steps. First, all items that contribute to a benchmark are converted to a 0 to 100 point scale. For example, in the "Enriching Educational Experience" (EEE) items, students who indicated they had already "done" the activity were recoded to receive a score of 100, while those students who "plan to do," "do not plan to do," or who "have not decided" to do the activity received a score of 0. Other items for EEE, such as in the Likert-type items with four fixed-response options (e.g., 1=never, 2=sometimes, 3=often, 4=very often), were recoded with values of 0, 33.33, 66.67, or 100. The scores were summed across the items and a mean was calculated for each student (so long as three-fifths of the items in any particular benchmark were answered). In addition, scoring adjustments were made for part-time students. At the final step, calculating weighted averages of the student-level scores for each class of FY and SNR students created the institutional benchmarks. The benchmark score is thus the weighted arithmetic average (mean) of the corresponding survey items, calculated by dividing the sum of values for each item by the total number of students responding to that item.

Appendix B: Detail of Benchmark Scores by College and Class Rank (i.e., First-Year and Senior students).

College	Class rank	Bench- mark	2003			2004			2006			2009			2011		
			N	Mean	Std. Dev	N	Mean	Std. Dev	N	Mean	Std. Dev	N	Mean	Std. Dev	N	Mean	Std. Dev
College of the Arts	First-year	ACL	3	41.3	26.2	5	42.9	18.1	1	38.1	.	10	42.9	10.5	4	41.7	6.0
		SFI	3	38.9	33.8	5	33.3	15.2	1	22.2	.	10	32.2	16.5	4	33.3	23.7
		SCE	3	65.7	10.5	5	53.9	19.8	1	72.2	.	10	65.0	18.7	4	61.8	15.4
		EEE*				5	21.3	10.1	1	17.9	.	10	29.5	11.1	4	24.8	13.3
		LAC	3	53.9	4.6	5	51.0	2.4	1	58.4	.	10	54.3	12.1	4	61.0	7.7
	Senior	ACL	4	45.2	11.3	2	61.9	26.9	0			9	51.3	13.6	22	51.5	15.2
		SFI	4	48.6	5.3	2	38.9	7.9	0			9	41.4	13.1	22	53.0	23.6
		SCE	4	73.6	5.8	2	68.1	13.7	0			9	54.3	15.8	21	53.8	14.2
		EEE*				2	35.3	22.4	0			9	26.5	10.1	22	33.0	17.5
		LAC	4	60.0	13.4	2	61.0	1.2	0			9	44.7	7.5	22	50.8	14.4
College of Business Administration	First-year	ACL	18	40.7	16.1	13	41.0	19.1	10	38.6	9.9	38	43.2	14.2	22	42.0	17.5
		SFI	18	26.9	19.6	13	31.6	18.6	10	20.0	10.2	38	31.4	18.9	22	34.4	20.5
		SCE	18	55.8	18.8	12	66.2	17.6	10	56.1	19.6	38	56.4	20.1	21	59.1	19.6
		EEE*				13	27.3	11.9	10	17.8	8.6	38	24.0	11.1	21	27.2	14.4
		LAC	18	51.9	13.6	13	56.4	12.5	10	46.4	10.3	38	48.4	13.7	22	52.3	14.8
	Senior	ACL	26	45.6	18.8	30	48.4	11.9	24	47.8	17.2	87	51.3	16.2	121	51.3	15.8
		SFI	26	29.5	20.1	30	25.6	16.7	24	35.0	20.6	87	31.0	16.7	121	37.9	19.4
		SCE	26	49.5	15.8	30	49.4	20.3	24	53.7	20.9	87	55.8	17.1	113	56.9	20.3
		EEE*				30	26.6	14.1	24	30.2	15.8	87	27.9	13.6	118	27.8	15.5
		LAC	26	49.0	12.8	30	53.4	14.5	24	53.5	12.3	87	51.9	13.4	119	53.3	13.8
College of Education	First-year	ACL	31	44.4	16.2	10	37.1	14.0	18	35.2	13.6	25	53.1	13.7	27	49.9	17.4
		SFI	31	29.2	19.6	10	27.2	15.4	18	24.6	11.5	25	34.2	15.5	25	37.6	16.9
		SCE	31	55.7	18.9	9	61.9	17.0	17	59.0	17.6	25	66.0	19.5	25	66.9	16.6
		EEE*				9	22.3	7.5	18	22.0	10.1	25	25.6	12.2	25	23.4	10.2
		LAC	31	46.4	12.7	9	42.5	5.3	18	50.0	14.9	25	56.9	12.9	25	52.8	12.3
	Senior	ACL	41	51.7	14.2	43	56.3	14.2	30	52.1	17.5	59	53.1	16.7	80	55.7	16.5
		SFI	41	29.6	17.7	43	30.5	16.5	30	33.9	16.9	59	36.7	17.1	80	42.0	19.4
		SCE	41	52.6	16.5	43	53.3	16.1	30	57.6	16.2	59	59.5	17.1	76	56.5	19.0
		EEE*				43	33.4	13.2	29	33.3	10.9	59	32.6	14.7	79	33.5	17.5
		LAC	41	54.0	14.5	43	54.1	12.3	30	58.1	11.2	59	58.1	13.4	79	56.2	14.5
College of Human and Health Sciences	First-year	ACL	11	39.8	12.6	22	37.4	13.2	14	41.5	11.7	58	44.0	11.6	76	40.0	16.7
		SFI	11	22.2	13.8	22	29.2	11.1	14	28.7	10.4	58	30.7	16.7	72	31.9	17.7
		SCE	11	60.9	13.6	22	52.9	13.5	14	60.3	18.1	58	56.3	19.6	68	59.0	17.9
		EEE*				22	20.5	9.5	14	21.4	7.8	58	24.8	11.3	70	24.0	13.7
		LAC	11	51.3	10.0	22	51.7	13.6	14	53.3	14.3	58	52.5	12.7	72	49.0	14.3
	Senior	ACL	9	45.5	16.7	10	44.3	13.1	20	49.8	14.9	79	53.4	14.7	110	50.0	15.1
		SFI	9	37.0	25.6	10	40.6	23.3	20	33.6	14.8	78	39.7	20.4	109	41.9	19.5
		SCE	9	55.2	16.2	10	59.2	17.1	20	57.8	18.2	79	58.8	18.0	105	57.1	17.4
		EEE*				10	21.8	16.4	20	27.3	12.9	79	34.7	14.3	107	34.0	15.8
		LAC	9	54.4	15.1	10	54.5	9.1	20	56.6	8.1	79	58.3	12.6	108	57.7	12.9

College of Humanities and Social Sciences	First-year	ACL	21	35.8	14.1	17	44.0	14.9	12	39.7	12.1	40	44.0	12.2	39	43.7	16.5
		SFI	21	29.6	20.8	17	33.3	18.9	12	30.1	10.2	40	31.7	13.8	37	39.8	23.5
		SCE	21	63.0	19.0	17	60.8	14.2	12	49.5	16.8	40	62.1	18.9	34	64.9	21.5
		EEE*				17	25.0	13.2	12	22.3	9.1	40	27.1	10.2	34	26.2	11.8
		LAC	21	50.8	11.3	17	53.7	13.7	12	47.1	7.0	40	54.0	12.1	37	50.9	12.9
	Senior	ACL	31	42.1	12.0	24	45.0	16.2	26	51.6	14.6	104	53.9	16.7	171	52.2	16.2
		SFI	31	36.6	17.5	24	35.2	21.2	26	38.0	16.4	104	41.8	22.2	170	47.9	21.5
		SCE	30	56.0	13.1	23	60.0	19.4	26	56.6	16.0	104	59.8	16.0	163	61.0	20.1
		EEE*				23	30.5	18.3	26	34.4	15.6	104	34.3	15.4	166	35.7	16.1
		LAC	30	54.4	11.7	24	61.7	12.8	26	55.3	14.9	104	57.2	14.3	166	58.6	13.3
College of Natural Sciences	First-year	ACL	27	40.6	14.4	22	43.3	19.5	7	42.2	14.4	36	45.4	11.8	48	42.3	17.5
		SFI	27	32.1	16.0	22	31.6	15.4	7	25.4	10.6	36	30.0	17.1	46	34.4	22.6
		SCE	25	57.2	20.0	22	60.2	19.4	7	61.9	19.4	36	60.8	18.7	41	62.2	19.6
		EEE*				22	27.1	14.6	7	22.6	9.9	36	26.8	11.7	43	24.7	12.2
		LAC	27	54.0	9.6	22	52.6	15.9	7	57.9	11.6	36	57.2	12.1	46	53.2	11.8
	Senior	ACL	16	48.5	16.3	8	45.8	17.1	8	55.7	15.3	58	52.4	15.4	83	47.4	18.2
		SFI	16	39.9	26.1	8	35.4	26.9	8	35.4	18.5	57	40.7	19.1	80	43.6	21.6
		SCE	15	57.1	18.9	8	42.4	16.8	8	61.1	17.8	58	58.8	17.0	75	56.3	17.4
		EEE*				8	33.5	14.8	8	41.1	18.6	58	32.0	12.4	76	31.0	15.2
		LAC	16	55.4	17.0	8	51.3	14.2	8	60.0	15.9	58	56.9	12.3	79	55.1	13.6

*Note. Excluded from the table is EEE in 2003 that utilized a different item scale; is therefore not comparable to the EEE scale in subsequent versions of NSSE.