

# Research & Analysis

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## **BENCHMARKS OF EFFECTIVE EDUCATIONAL PRACTICE: RESULTS OF THE 2004 CCSSE ADMINISTRATION**

*College Goal #1: Promote institutional learning through excellence in teaching, support services, and instructional delivery systems. – adopted by the Board of Trustees, 4/21/04*

The Community College Survey of Student Engagement (CCSSE) embodies measurements of five “benchmarks” of effective educational practice in community colleges. They are:

1. Active and Collaborative Learning;
2. Student Effort;
3. Academic Challenge;
4. Student-Faculty Interaction; and
5. Support for Learners.

The benchmarks allow colleges to monitor their performance as assessed by an important constituency – students. Thus, an examination of the results may serve as a useful tool to improve teaching and learning.

Research conducted by CCSSE at the University of Texas – Austin, has demonstrated that the benchmarks have high associations with student learning outcomes. Note, CCSSE does not measure student learning outcomes *per se* but rather is predicated on research demonstrating the association between student engagement and learning. Thus, in the main, CCSSE reports on process measures not outcomes. Assessment of process contributes to a diagnosis of performance revealed by outcome measures.

Of the more than 120 survey items included in the CCSSE instrument, each benchmark reflects a cluster of six to ten items. Collectively, the five benchmarks encompass a subset of 38 items within the survey.

### **The Benchmarks**

According to CCSSE, institutional practice and student behavior measured by the benchmarks are among the most powerful contributors to effective teaching, learning,

retention, and student success. A brief description of each benchmark follows as taken from CCSSE's *Institutional Report 2004*.

*Benchmark #1: Active and Collaborative Learning*

Students learn more when they are actively involved in their education and have opportunities to think about and apply what they are learning in different settings. Through collaboration with others to solve problems or master challenging content, students develop valuable skills that prepare them to deal with the kinds of situations and problems they will encounter in the workplace, community, and their personal lives.

*Benchmark #2: Student Effort*

Students' own behaviors contribute to their learning and the likelihood that they will successfully attain their educational goals. "Time on task" is a key variable, and there are a variety of settings and means through which students may apply themselves to the learning process.

*Benchmark #3: Academic Challenge*

Challenging intellectual and creative work is central to student learning and collegiate quality. Ten survey items correspond to components of academic challenge including the nature and amount of assigned academic work, the complexity of cognitive tasks presented to students, and the standards faculty members use to evaluate student performance.

*Benchmark #4: Student-Faculty Interaction*

The more contact students have with their teachers, the more likely they are to learn effectively and to persist toward achievement of their educational goals. Personal interaction with faculty members strengthens students' connections to the college and helps them focus on their academic progress. Working with an instructor on a project or serving with faculty members on a college committee lets students see first-hand how experts identify and solve practical problems. Through such interactions, faculty members become role models, mentors, and guides for continuous, lifelong learning.

*Benchmark #5: Support for Learners*

Students perform better and are more satisfied at colleges that are committed to their success and cultivate positive working and social relationships among different groups on campus. Community college students also benefit from services targeted to assist them with academic and career planning, academic skill development, and other issues that may affect both learning and retention.

### **Interpretation of Benchmark Scores**

A benchmark score reflects a standardized index of measurement on a cluster of six to ten survey items. This allows comparability of performance to other benchmarks, institutions, or groups of institutions – fundamental to the benchmarking approach.

The standardization technique employed by CCSSE results in "50.0" as the respondents' mean score with a standard deviation of 25. Thus, for example, a score of 58 on benchmark # 3, *Academic Challenge* and a score of 42 on benchmark #2, *Student Effort*, informs the institution that it is assessed higher on one than the other in an identification of relative strengths and weaknesses. Additionally the same information indicates the

college is above average (50) among participating institutions on one benchmark (Academic Challenge) and below average on the other (Student Effort).

In addition to relative standing, absolute values should be considered when examining survey item scores. For example, within benchmark #2 *Student Effort*, one item poses the question “how often do you use the computer lab?” The rating scale is “1 very little, 2 some, 3 quite a bit, 4 very much.” At 1.98, HCC scores below the state (2.04) and all participating institutions (2.06). However, all three reflect that the preponderance of respondents answered “2 some.” “Some” may be a desired level of computer lab use among the population of all students in credit classes.

Finally, it is also important to consider that community colleges differ on variables such as program mix, enrollment patterns, student profiles, location, resources, size, etc. These considerations are of value in the interpretation of results.

## The Results

The table below compares the mean scores of Hillsborough Community College (HCC) to all 28 community colleges in Florida and the standardized score (50.0) of all 152 community colleges in the United States participating in the CCSSE project.

**Comparison of Average Benchmark Scores of HCC to Florida and All CCSSE Participants, 2004**

<b>Benchmark</b>	<b>HCC</b>	<b>Florida</b>	<b>All CCSSE</b>
#1 Active & Collaborative Learning	47.3	49.5	50.0
#2 Student Effort	48.4	50.5	50.0
#3 Academic Challenge	47.6	50.1	50.0
#4 Student-Faculty Interaction	49.5	50.0	50.0
#5 Support for Learners	46.8	49.7	50.0

As shown above, the HCC scores fall below the state and nation. The college scores closest to the average for benchmark #4, Student-Faculty Interaction at 49.5. Though not evident in the table, when benchmark #4 is disaggregated by course load, the assessment by HCC part-time students exceeds the state and national mean response. The lower than average scores by full-time students reduced the overall mean.

The state scores closely approximate those of all participating colleges.

### *Item Analysis*

Among the 38 items collectively encompassed by the benchmarks, HCC exceeded the state scores in eight instances; however, in one of those a higher score reflected a negative assessment (“Came to class without completing readings or assignments”). HCC exceeded the national scores on ten of 38 items, again, with the aforementioned reflecting negatively. The scores on these items are displayed in the tables of the appendix.

In only one of the 38 survey items were the HCC results found to have a statistically significant difference from the mean as defined by criteria used by CCSSE ( $p < 0.001$  and an effect size equal to or greater than 0.2). This indicates that a sizeable number of the score differences (both above and below the mean) may be due to chance variation. The item with a statistically significant difference was found in benchmark #5 *Support for Learners* in which “providing the financial support you need to afford your education” was below the mean. Reference the corresponding table for more detail.

### **Some Conclusions**

Based upon the results above, some observations can be made pertaining to the benchmark scores for HCC:

1. There is a generalized pattern of falling below the average state and national benchmark scores and their constituent survey items.
2. Although HCC does not exceed an average benchmark score, in no instance is it further than 4 points below the state or national mean (the standard deviation is 25).
3. In this context, the narrow range of the benchmark scores (46.8 to 49.5) does not provide evidence of distinctive institutional strengths or weaknesses.
4. Only one of 38 survey items was found to have a score with a statistically significant difference different from the state or national averages.

At best, these data portray an institution assessed to be average by its students enrolled in credit courses.

The CCSSE literature states that colleges “must not shy away from the question of whether the performance reflected in the results is good enough.” For HCC, are the results of this assessment good enough? A subsequent administration of the CCSSE instrument could be used to assess the progress of deliberate institutional action to enhance student engagement contributing to fulfillment of college goal one -

*Promote institutional learning through excellence in teaching, support services, and instructional delivery systems.*

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## APPENDIX

## Benchmark A: Active and Collaborative Learning

	HCC	Florida	Nation
<b>Benchmark</b>	47.3	49.5	50.0
<i>In your experience <u>at this college</u> during the current school year, about how often have you done each of the following?</i> (1 never, 2 sometimes, 3 often, 4 very often)			
1. Asked questions in class or contributed to class discussion	2.86	2.86	2.87
2. Made a class presentation	1.97	2.03	2.02
3. Worked with other students on projects during class	2.26	2.37	2.43
4. Worked with classmates outside of class to prepare class assignments	1.77	1.88	1.84
5. Tutored or taught other students (paid or voluntary)	1.31	1.38	1.37
6. Participated in a community-based project as a part of a regular course	1.27	1.28	1.28
7. Discussed ideas from your readings or classes with others outside of class (students, family members, coworkers, etc.)	2.64	2.59	2.56

## Benchmark B: Student Effort

	HCC	Florida	Nation
<b>Benchmark</b>	48.4	50.5	50.0
<i>In your experience <u>at this college</u> during the current school year, about how often have you done each of the following?</i> (1 never, 2 sometimes, 3 often, 4 very often)			
1. Prepared two or more drafts of a paper or assignment before turning it in	2.45	2.50	2.48
2. Worked on a paper or project that required integrating ideas or information from various sources	2.70	2.71	2.68
3. Came to a class without completing readings or assignments	2.00	1.95	1.92
<i>During the current school year, about how much reading and writing have you done at this college?</i> (1 none, 2 between 1 and 4, 3 between 5 and 10, 4 between 11 and 20, 5 more than 20)			
4. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment	2.04	2.10	2.08
<i>About how many hours do you spend in a typical 7-day week doing each of the following?</i> (0 =none, 1= 1-5 hours, 2= 6-10 hours, 3 =11-20 hours, 4=21-30 hours, 5 =more than 30 hours)			
5. Preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program)	1.73	1.82	1.84
<i>How often do you use the following services?</i> (0 don't know/NA, 1 rarely/never, 2 sometimes, 3 often)			
6. Peer or other tutoring	1.44	1.45	1.45
7. Skill labs (writing, math, etc.)	1.77	1.79	1.72
8. Computer lab	1.98	2.04	2.06

## Benchmark C: Academic Challenge

	HCC	Florida	Nation
<b>Benchmark</b>	47.6	50.1	50.0
<i>In your experience at this college during the current school year, about how often have you done each of the following? (1 never, 2 sometimes, 3 often, 4 very often)</i>			
1. Worked harder than you thought you could to meet an instructor's standards or expectations	2.53	2.49	2.49
<i>During the current school year, how much has your coursework at this college emphasized the following mental activities? (1 very little, 2 some, 3 quite a bit, 4 very much)</i>			
2. Analyzing the basic elements of an idea, experience, or theory	2.80	2.80	2.79
3. Synthesizing and organizing ideas, information, or experiences in new ways	2.64	2.66	2.66
4. Making judgments about the value or soundness of information, arguments, or methods	2.46	2.52	2.51
5. Applying theories or concepts to practical problems or in new situations	2.51	2.58	2.58
6. Using information you have read or heard to perform a new skill	2.60	2.66	2.68
<i>During the current school year, about how much reading and writing have you done at this college? (1 none, 2 between 1 &amp; 4, 3 between 5 &amp; 10, 4 between 11 &amp; 20, 5 more than 20)</i>			
7. Number of assigned textbooks, manuals, books, or book-length packs of course readings	2.66	2.79	2.82
8. Number of written papers or reports of any length	2.67	2.89	2.79
<i>Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work at this college. (1 extremely easy to 7 extremely challenging)</i>			
9. Rate question above	4.88	5.02	5.00
<i>How much does this college emphasize each of the following? (1 very little, 2 some, 3 quite a bit, 4 very much)</i>			
10. Encouraging you to spend significant amounts of time studying	2.89	2.94	2.90

## Benchmark D: Student-Faculty Interaction

	HCC	Florida	Nation
<b>Benchmark</b>	49.5	50.0	50.0
<i>In your experience at this college during the current school year, about how often have you done each of the following?</i> (1 never, 2 sometimes, 3 often, 4 very often)			
1. Used email to communicate with an instructor	2.25	2.24	2.20
2. Discussed grades or assignments with an instructor	2.52	2.47	2.45
3. Talked about career plans with an instructor or advisor	1.89	1.93	1.95
4. Discussed ideas from your readings or classes with instructors outside of class	1.69	1.66	1.69
5. Received prompt feedback (written or oral) from instructors on your performance	2.58	2.65	2.64
6. Worked with instructors on activities other than coursework	1.30	1.33	1.36

## Benchmark E: Support for Learners

	HCC	Florida	Nation
<b>Benchmark</b>	46.8	49.7	50.0
<i>How much does this college emphasize?</i> (1 very little, 2 some, 3 quite a bit, 4 very much)			
1. Providing the support you need to help you succeed at this college	2.80	2.89	2.89
2. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	2.43	2.40	2.41
3. Helping you cope with your non-academic responsibilities (work, family, etc.)	1.76	1.79	1.86
4. Providing the support you need to thrive socially	1.90	1.97	2.01
5. Providing the financial support you need to afford your education	2.05	2.30*	2.31*
<i>How often do you use the following services?</i> (0 don't know/NA, 1 rarely/never, 2 sometimes, 3 often)			
6. Academic advising/planning	1.77	1.75	1.73
7. Career counseling	1.36	1.44	1.45

\* Mean differences are significant at  $p < 0.001$  level and have an effect size greater than or equal to 0.2