



CUESTA
COLLEGE

Institutional
Effectiveness
Outcomes
Report

October 31

2011

This report provides measurements of Cuesta's Institutional Effectiveness Outcomes as well as an assessment of our current status vis-à-vis defined benchmarks.

Institutional
Research

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IEO #1: Student Progress and Achievement Rate (ARCC Indicator 1)

DEFINITION: Percentage of cohort of first-time students with minimum of 12 units earned who attempted a degree/certificate/transfer course within six years and who are shown to have earned AA/AS or Certificate OR transferred to four-year institution OR became Transfer Directed or Transfer Prepared within six years of entry.

See Appendix A for detailed methodology

BENCHMARK: Student Progress and Achievement Rate of Peer Group

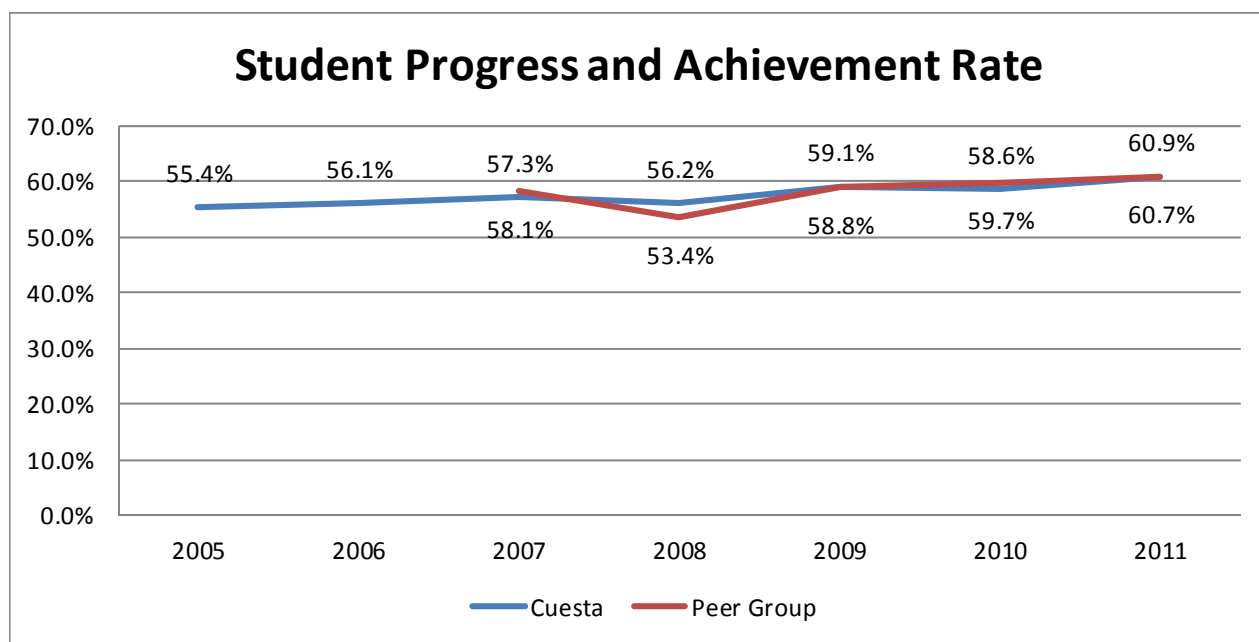
See Appendix B for detailed explanation of Peer Group construction

GOAL: To consistently meet or exceed the Benchmark

DATA:

Institutional Effectiveness Outcome #1		2005	2006	2007	2008	2009	2010	2011
Student Progress and Achievement Rate	Cuesta	55.4%	56.1%	57.3%	56.2%	59.1%	58.6%	60.9%
	Peer Group			58.1%	53.4%	58.8%	59.7%	60.7%

BELOW BENCHMARK ABOVE BENCHMARK



SOURCE: California Community College Chancellor’s Office ARCC Reports 2007,2008,2009,2010,2011

ASSESSMENT: Cuesta’s Student Progress and Achievement Rate rose two percent in 2011, recovering from its slight dip in 2010. While the peer group rate rose slightly as well over the same time period, Cuesta’s Student Progress and Achievement Rate recovered enough to once again exceed the benchmark rate.

IEO #2: Percent of students who earned at least 30 Units (ARCC Indicator 2)

DEFINITION: Percentage of cohort of first-time students with minimum of 12 units earned who attempted a degree/certificate/transfer course within six years of entry who earned at least 30 units while in the CCC system.

See Appendix A for detailed methodology

BENCHMARK: Percent of students who earned at least 30 Units within Peer Group

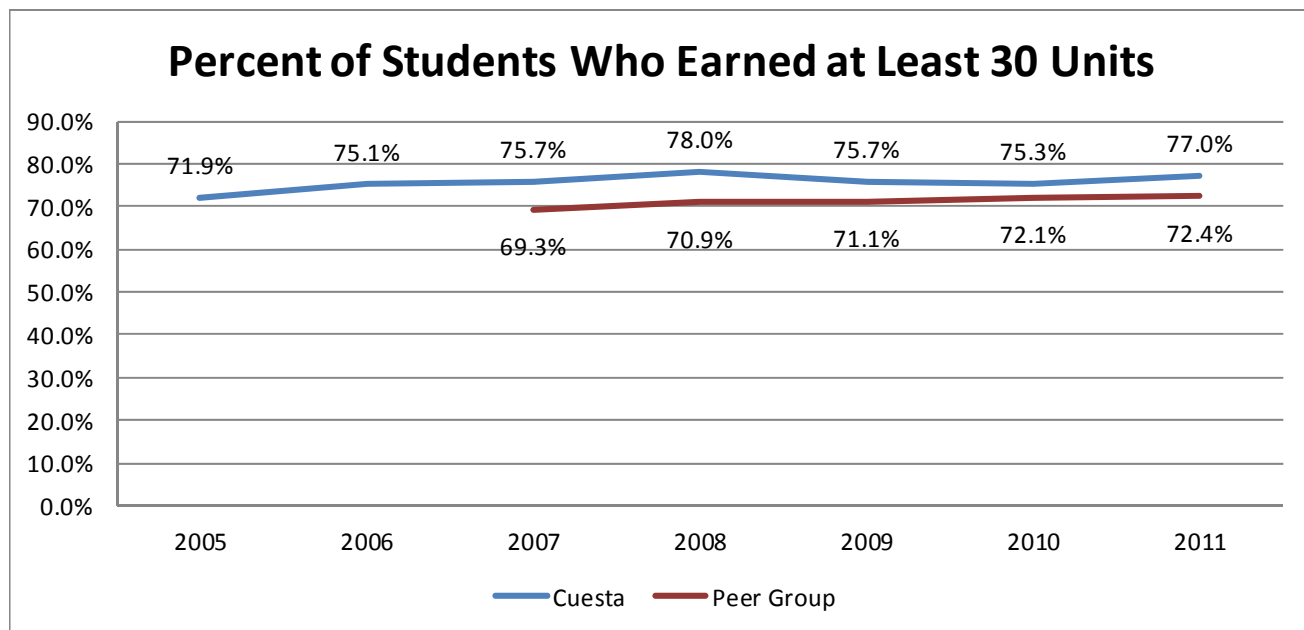
See Appendix B for detailed explanation of Peer Group construction

GOAL: To consistently meet or exceed the Benchmark

DATA:

Institutional Effectiveness Outcome #2		2005	2006	2007	2008	2009	2010	2011
Percent of Students Who Earned at Least 30 Units	Cuesta	71.9%	75.1%	75.7%	78.0%	75.7%	75.3%	77.0%
	Peer Group			69.3%	70.9%	71.1%	72.1%	72.4%

BELOW BENCHMARK ABOVE BENCHMARK



SOURCE: California Community College Chancellor's Office ARCC Reports 2007,2008,2009,2010,2011

ASSESSMENT: Cuesta's Percent of Students Who Earned at Least 30 Units rose solidly between 2010 and 2011 while the peer group rate remained stable over the same time period. Consequently, Cuesta continues to exceed the peer group average as it has in each year that a benchmark was available.

IEO #3: Persistence Rate (ARCC Indicator 3)

DEFINITION: Percentage of cohort of first-time students with minimum of six units earned in their first Fall term in the CCC who return and enroll in the subsequent Fall term anywhere in the system.

See Appendix A for detailed methodology

BENCHMARK: Persistence Rate of Peer Group

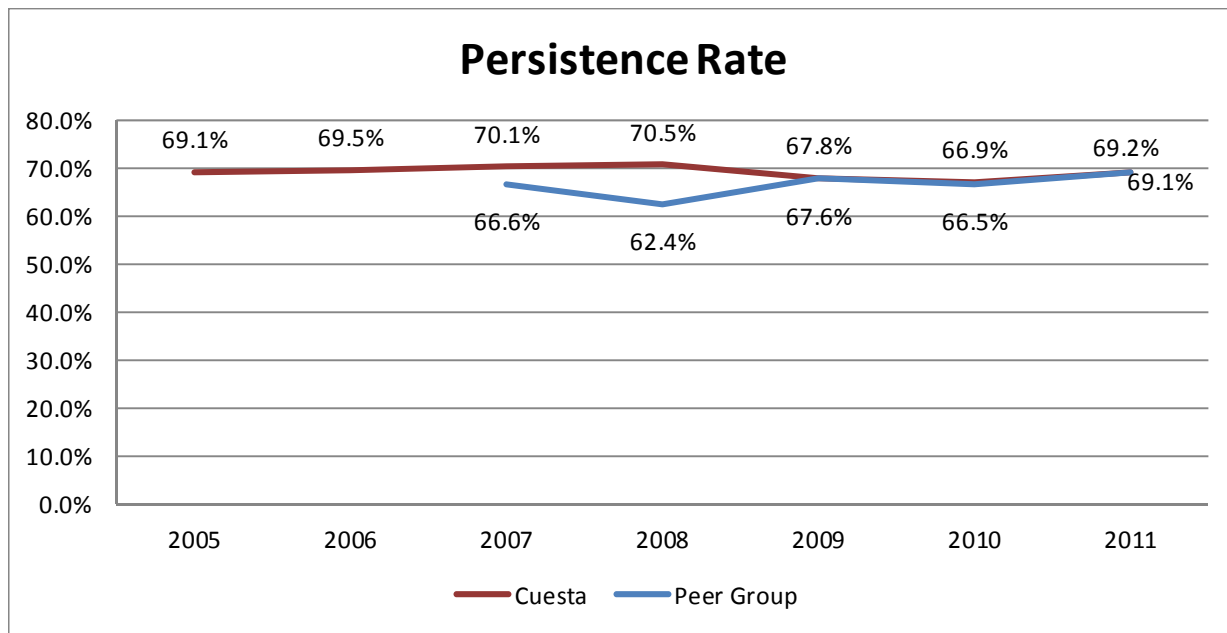
See Appendix B for detailed explanation of Peer Group construction

GOAL: To consistently meet or exceed the Benchmark

DATA:

Institutional Effectiveness Outcome #3		2005	2006	2007	2008	2009	2010	2011
Persistence Rate	Cuesta	69.1%	69.5%	70.1%	70.5%	67.8%	66.9%	69.1%
	Peer Group			66.6%	62.4%	67.6%	66.5%	69.2%

BELOW BENCHMARK ABOVE BENCHMARK



SOURCE: California Community College Chancellor’s Office ARCC Reports 2007,2008,2009,2010,2011

ASSESSMENT: Cuesta’s Persistence Rate rose solidly between 2010 and 2011 as did the peer group Persistence Rate. However, Cuesta’s Persistence Rate fell slightly below the peer group average for the first time.

IEO #4: Annual Successful Course Completion Rate—Vocational Courses (Credit) (ARCC Indicator 4)

DEFINITION: Vocational courses were defined via their SAM (Student Accountability Model) priority code. SAM codes A, B, and C indicate courses that are clearly occupational. Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR.

See Appendix A for detailed methodology

BENCHMARK: Vocational Course Completion Rate of Peer Group

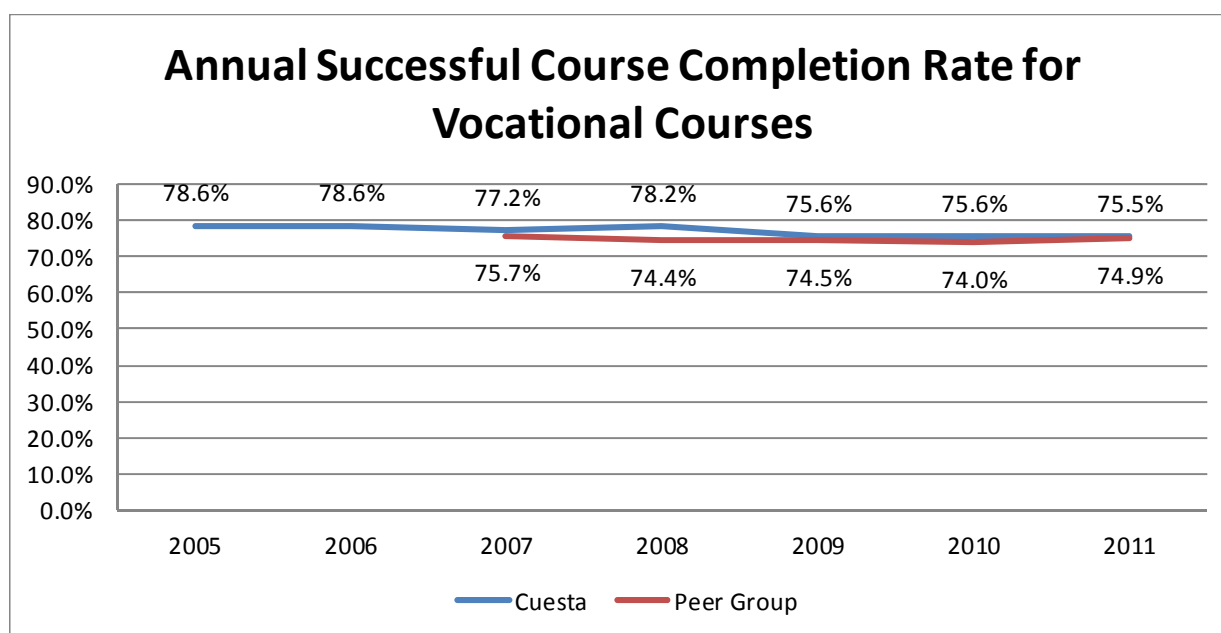
See Appendix B for detailed explanation of Peer Group construction

GOAL: To consistently meet or exceed the Benchmark

DATA:

Institutional Effectiveness Outcome #4		2005	2006	2007	2008	2009	2010	2011
Annual Successful Course Completion Rate for Vocational Courses	Cuesta	78.6%	78.6%	77.2%	78.2%	75.6%	75.6%	75.5%
	Peer Group			75.7%	74.4%	74.5%	74.0%	74.9%

BELOW BENCHMARK ABOVE BENCHMARK



SOURCE: California Community College Chancellor’s Office ARCC Reports 2007,2008,2009,2010,2011

ASSESSMENT: Cuesta’s Annual Vocational Course Completion Rate was relatively unchanged between 2010 and 2011, while the peer group rate rose slightly over the same time period. Accordingly, Cuesta continues to exceed the peer group average as it has in each year that a benchmark was available.

IEO #5: Annual Successful Course Completion Rate—Basic Skills Courses (Credit) (ARCC Indicator 5)

DEFINITION: Basic skills courses were those having a course designation of B in CB08 (basic skills course). Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR.

See Appendix A for detailed methodology

BENCHMARK: Basic Skills Course Completion Rate of Peer Group

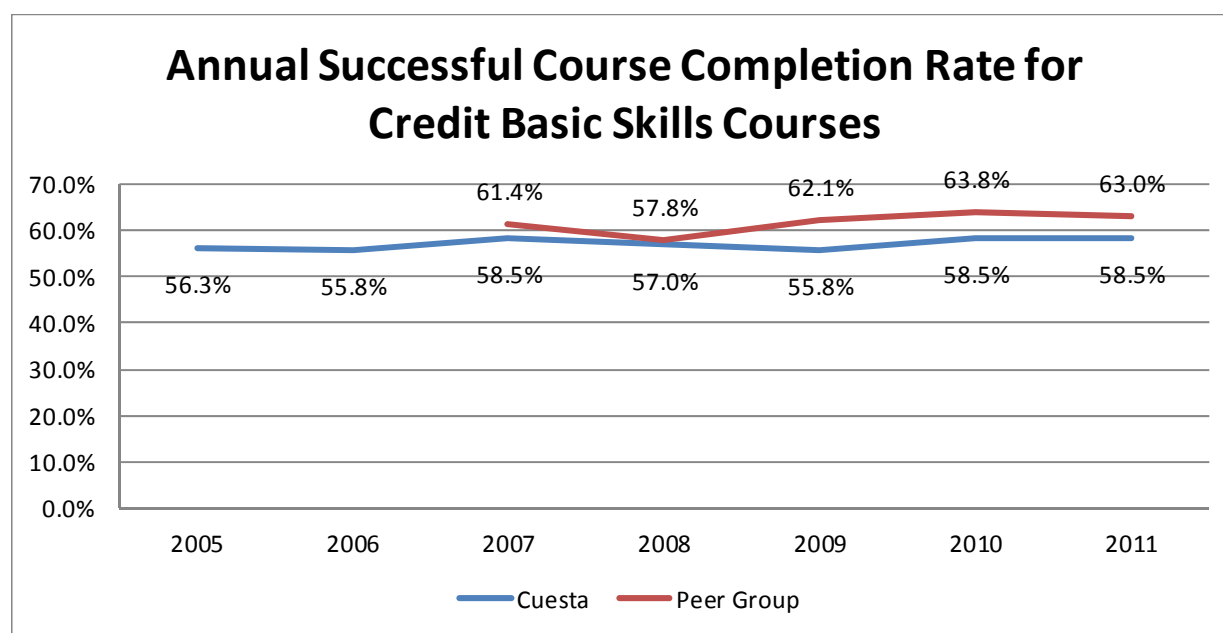
See Appendix B for detailed explanation of Peer Group construction

GOAL: To consistently meet or exceed the Benchmark

DATA:

Institutional Effectiveness Outcome #5		2005	2006	2007	2008	2009	2010	2011
Annual Successful Course Completion Rate for Credit Basic Skills Courses	Cuesta	56.3%	55.8%	58.5%	57.0%	55.8%	58.5%	58.5%
	Peer Group			61.4%	57.8%	62.1%	63.8%	63.0%

BELOW BENCHMARK ABOVE BENCHMARK



SOURCE: California Community College Chancellor’s Office ARCC Reports 2007,2008,2009,2010,2011

ASSESSMENT: Cuesta’s Annual Basic Skills Course Completion Rate remains unchanged between 2010 and 2011, while the peer group rate decreased slightly. However, the college continues to underperform its peer group as it has in each year that a benchmark was available.

IEO #6: Improvement Rate for Credit ESL Courses (ARCC Indicator 6)

DEFINITION: The ESL improvement rate cohorts consisted of students enrolled in credit ESL courses who successfully completed that initial course. Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR. The outcome of interest was that group of students who successfully completed a higher-level ESL course or college level English course within three academic years of completing the first ESL course.

See Appendix A for detailed methodology

BENCHMARK: ESL Improvement Rate of Peer Group

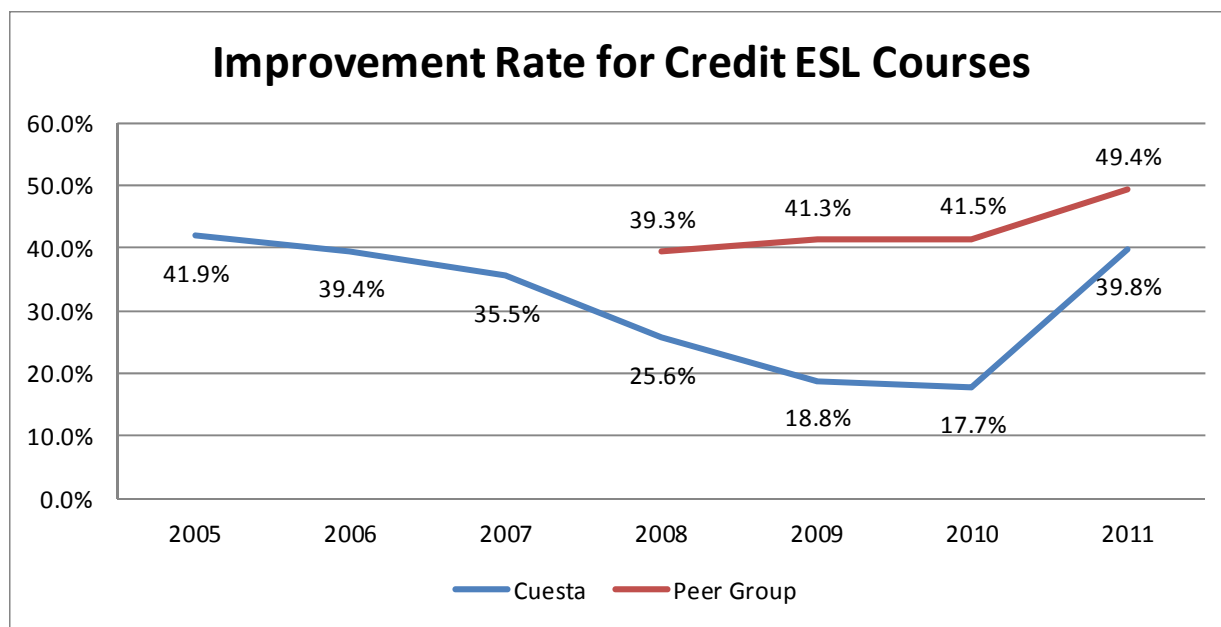
See Appendix B for detailed explanation of Peer Group construction

GOAL: To consistently meet or exceed the Benchmark

DATA:

Institutional Effectiveness Outcome #6		2005	2006	2007	2008	2009	2010	2011
Improvement Rate for Credit ESL Courses	Cuesta	41.9%	39.4%	35.5%	25.6%	18.8%	17.7%	39.8%
	Peer Group				39.3%	41.3%	41.5%	49.4%

BELOW BENCHMARK ABOVE BENCHMARK



SOURCE: California Community College Chancellor’s Office ARCC Reports 2007,2008,2009,2010,2011

ASSESSMENT: Cuesta’s Improvement Rate for Credit ESL Courses remains consistently lower than the peer group average, even with the state-wide recoding of relevant data elements in 2009/10.

IEO #7: Improvement Rate for Credit Basic Skills Courses (ARCC Indicator 7)

DEFINITION: The basic skills improvement rate cohorts consisted of students enrolled in a credit basic skills English or Mathematics course who successfully completed that initial course. Only students starting at two or more levels below college level/transfer level were included in the cohorts. Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR. The outcome of interest was that group of students who successfully completed a higher-level course in the same discipline within three academic years of completing the first basic skills course.

See Appendix A for detailed methodology

BENCHMARK: Basic Skills Improvement Rate of Peer Group

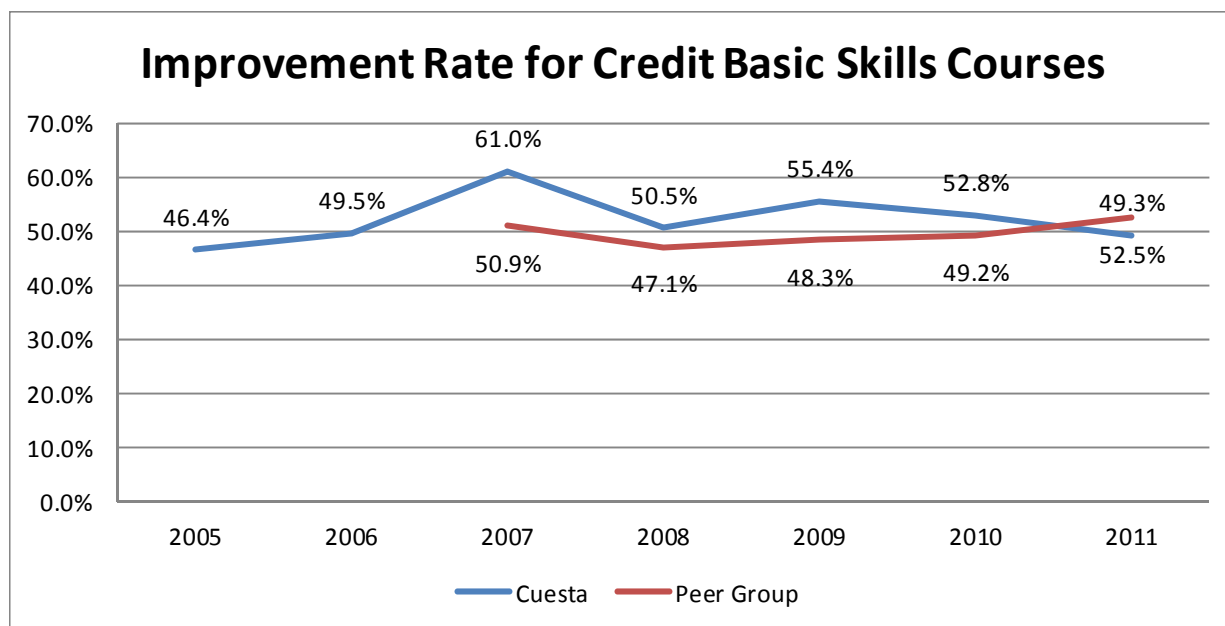
See Appendix B for detailed explanation of Peer Group construction

GOAL: To consistently meet or exceed the Benchmark

DATA:

Institutional Effectiveness Outcome #7		2005	2006	2007	2008	2009	2010	2011
Improvement Rate for Credit Basic Skills Courses	Cuesta	46.4%	49.5%	61.0%	50.5%	55.4%	52.8%	49.3%
	Peer Group			50.9%	47.1%	48.3%	49.2%	52.5%

BELOW BENCHMARK ABOVE BENCHMARK



SOURCE: California Community College Chancellor's Office ARCC Reports 2007,2008,2009,2010,2011

ASSESSMENT: Cuesta's Improvement Rate for Credit Basic Skills Courses has fallen below the peer group average for the first time since the benchmark has been available, with a drop of 3 percentage points.

IEO #8: Students successfully obtain and retain a job related to their vocational degree or certificate after one year of program completion/graduation. (CTEA Core Indicator 4P1)

DEFINITION: This indicator is the percentage of CTE program leavers and completers who did not transfer to a two or four year institution and were found during one of the four quarters following the cohort year in an apprenticeship program, UI covered employment, the federal Government, or the military.

See Appendix C for detailed methodology

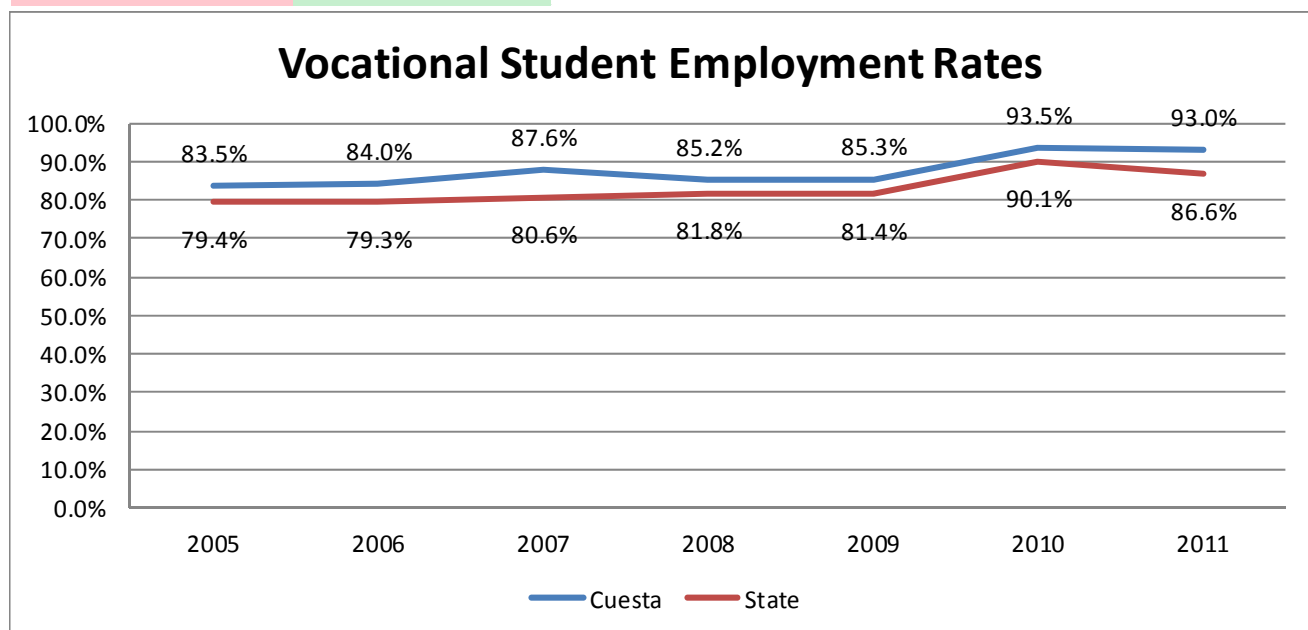
BENCHMARK: State Performance Level Target See Appendix C for detailed methodology

GOAL: To consistently meet or exceed the Benchmark

DATA:

Institutional Effectiveness Outcome #8		2005	2006	2007	2008	2009	2010	2011
Employment Rates for Vocational Leavers and Completers	Cuesta	83.5%	84.0%	87.6%	85.2%	85.3%	93.5%	93.0%
	State	79.4%	79.3%	80.6%	81.8%	81.4%	90.1%	86.6%

BELOW BENCHMARK ABOVE BENCHMARK



SOURCE: California Community College Chancellor’s Office CTEA Core Indicator Negotiation Reports (2010)

ASSESSMENT: Cuesta’s Vocational Student Employment Rates are consistently above the State Performance Level Targets. Even with solid decreases in employment rates in 2010 and 2011, Cuesta employment remained relatively unchanged between the same time period.

IEO #9A: The Cuesta College student body is representative of its service area.

DEFINITION: This measure compares the percentage of each population group that is enrolled at Cuesta College to that group’s representation in the adult population with the community service area.

BENCHMARK: Percentage representation within the community service area

GOAL: To represent the demographics of the service area in Cuesta’s student body

DATA: Fall 2010 Cuesta MIS Data Compared to 2010 Census Data

AGE	Cuesta College	Service Area	Difference
15-19	31.7%	8.1%	23.6%
20 to 24	32.9%	10.1%	22.8%
25 to 34	18.3%	11.9%	6.4%
35-64	16.9%	39.3%	-22.4%
DISABILITY STATUS			
	Cuesta College	Service Area	Difference
Disability	4.5%	9.1%	-4.6%
No Disability	95.4%	90.9%	4.5%
ETHNICITY			
	Cuesta College	Service Area	Difference
White alone	61.4%	71.1%	-9.7%
Hispanic or Latino (of any race)	25.1%	20.8%	4.3%
Two or more races	2.7%	3.8%	-1.1%
Some other race alone/Unknown	5.1%	0.0%	5.1%
Native Hawaiian and Other Pacific Islander alone	0.2%	0.1%	0.1%
Asian alone	2.1%	3.2%	-1.1%
American Indian and Alaska Native alone	0.8%	0.9%	-0.1%
Black or African American alone	1.1%	2.1%	-1.0%
GENDER			
	Cuesta College	Service Area	Difference
Male	48.3%	51.2%	-2.9%
Female	50.5%	48.8%	1.7%
Unknown	1.0%	0.0%	1.0%

Over Represented Under Represented

SOURCE: California Community College Chancellor’s Office 2009 MIS DATA & 2009 American Community Survey

ASSESSMENT: As expected, younger students are overrepresented at Cuesta. Students with Disabilities are underrepresented as are students who are white, of two or more races or Black compared to the proportions in the service area. Finally, Males also are underrepresented at Cuesta compared to the proportion of males in the service area.

IEO #9B: Cuesta College promotes a campus climate that is inclusive and supportive of its diverse student body.

DEFINITION: This measure compares Cuesta’s mean level of satisfaction with the national sample of community college respondents on two constructs measured by the Noel Levitz Student Satisfaction Inventory: Campus Climate and Responsiveness to Diversity.

See Appendix D for more details

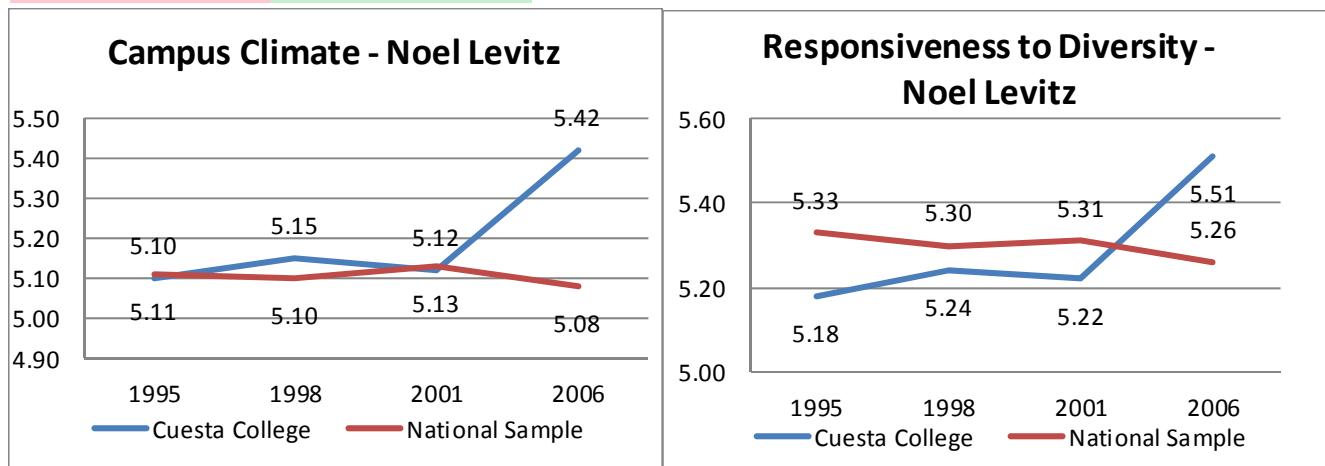
BENCHMARK: Mean Satisfaction level of National sample of Community College Students

GOAL: To meet or exceed the Satisfaction level of the National sample

DATA:

Institutional Effectiveness Outcome #9B - Measure 1		1995	1998	2001	2006
Campus Climate	Cuesta	5.10	5.15	5.12	5.42
	Nation	5.11	5.10	5.13	5.08
	Difference	-0.01	0.05	-0.01	0.34*
Institutional Effectiveness Outcome #9B - Measure 2		1995	1998	2001	2006
Responsiveness to Diversity	Cuesta	5.18	5.24	5.22	5.51
	Nation	5.33	5.30	5.31	5.26
	Difference	-0.15*	-0.06	-0.09*	0.25*

BELOW BENCHMARK ABOVE BENCHMARK *Statistically Significant Difference (p<.05)



SOURCE: California Community College Chancellor’s Office 2009 MIS DATA & 2009 American Community Survey

ASSESSMENT: Cuesta’s mean level of satisfaction with Campus Climate has approximated the national sample until 2006 when mean satisfaction statistically significantly increased above the national sample. Cuesta’s mean level of satisfaction with Responsiveness to Diversity had been consistently below the national mean until 2006 when mean satisfaction levels statistically significantly increased above the national sample mean.

IEO #10: The District demonstrates appropriate management of its administrative services activities by obtaining an unqualified independent audit annually.

CUESTA COLLEGE OBTAINED AN UNQUALIFIED INDEPENDENT AUDIT OF ITS ADMINISTRATIVE SERVICE ACTIVITIES IN 2010/11—AS IT HAS SINCE THE COLLEGE’S INCEPTION.

APPENDIX A: ARCC INDICATORS

STUDENT PROGRESS AND ACHIEVEMENT RATE

Definition: Percentage of cohort of first-time students with minimum of 12 units earned who attempted a degree/certificate/transfer course within six years and who are shown to have achieved ANY of the following outcomes within six years of entry:

- Earned any AA/AS or Certificate (18 or more units)
- Actual transfer to four-year institution (students shown to have enrolled at any four-year institution of higher education after enrolling at a CCC)
- Achieved "Transfer Directed" (student successfully completed both transfer-level Math AND English courses)
- Achieved "Transfer Prepared" (student successfully completed 60 UC/CSU transferable units with a GPA \geq 2.0)

The cohorts consisted of first-time students from 2001-2002 (Cohort 1), 2002-2003 (Cohort 2) and 2003-2004 (Cohort 3) who achieved outcomes by 2006-2007 (Cohort 1), 2007-2008 (Cohort 2) and 2008-2009 (Cohort 3). Transfer was determined by matching with a database generated by the Chancellor's Office that contains NSC, UC and CSU transfers.

Data Source: Chancellor's Office Management Information System (COMIS)

Cohort

First-Time Students Who Showed Intent to Complete:

1. Look systemwide* to determine first-time status. First-time status is defined as a student who took a credit course in the CCC system for the first time. Students with prior enrollments outside the CCC system are excluded.

AND

2. SX03 ENROLLMENT-UNITS-EARNED \geq 12 at your college and/or anywhere in the system

AND

3. One or more of the following:

1. Transfer/Degree Intent

Attempted Enrollment in course(s) where:

CB03 COURSE-TOP-CODE = 17*, 1501*, 1503*, 1504*, 1507*

CB04 COURSE-CREDIT-STATUS = D

2. Certificate Intent

Attempted Enrollment in course(s) where:

CB09 COURSE-SAM-PRIORITY-CODE = A, B

CB04 COURSE-CREDIT-STATUS = C, D

*Systemwide is defined as all California Community Colleges

Outcomes

A student must successfully achieve one or more of the following outcomes:

1. Associate of Arts or Sciences Degree

SP02 STUDENT-PROGRAM-AWARD = A, S

2. Certificate (18 plus units)

SP02 STUDENT-PROGRAM-AWARD = L, T, F

APPENDIX A: ARCC INDICATORS

STUDENT PROGRESS AND ACHIEVEMENT RATE (Continued)

3. Transfer Directed

CB03 COURSE-TOP-CODE = 1501*, 1503*, 1504*, 1507*

CB05 COURSE-TRANSFER-STATUS = A, B

SX04 ENROLLMENT-GRADE = A, B, C, CR/P

AND

CB03 COURSE-TOP-CODE = 17*

CB05 COURSE-TRANSFER-STATUS = A, B

SX04 ENROLLMENT-GRADE = A, B, C, CR/P

4. Transfer Prepared

CB05 COURSE-TRANSFER-STATUS = A, B

SX03 ENROLLMENT-UNITS-EARNED >= 60 at your college and/or anywhere in the system

SX04 ENROLLMENT-GRADE = A, B, C, CR/P

5. Transferred to Four-Year Institution

Match with NSC, UC, CSU file

Calculation: Student Progress and Achievement Rate = Outcomes/Cohort

APPENDIX A: ARCC INDICATORS

PERCENT OF STUDENTS WHO EARNED AT LEAST 30 UNITS

Definition: Percentage of cohort of first-time students with minimum of 12 units earned who attempted a degree/certificate/transfer course within six years of entry who are shown to have achieved the following value-added measure of progress within six years of entry:

- Earned at least 30 units while in the CCC system (value-added threshold of units earned as defined in wage studies as having a positive effect on future earnings.)

The cohorts consisted of first-time students from 2001-2002 (Cohort 1), 2002-2003 (Cohort 2) and 2003-2004 (Cohort 3) who achieved outcomes by 2006-2007 (Cohort 1), 2007-2008 (Cohort 2) and 2008-2009 (Cohort 3).

Data Source: Chancellor's Office Management Information System (COMIS)

Cohort

First-Time Students Who Showed Intent to Complete:

1. Look systemwide to determine first-time status. First-time status is defined as a student who took a credit course in the CCC system for the first time. Students with prior enrollments outside the CCC system are excluded.

AND

2. SX03 ENROLLMENT-UNITS-EARNED >= 12 at your college and/or anywhere in the system

AND

3. One or more of the following:

1. Transfer/Degree Intent

Attempted Enrollment in course(s) where:

CB03 COURSE-TOP-CODE = 17*, 1501*, 1503*, 1504*, 1507*

CB04 COURSE-CREDIT-STATUS = D

2. Certificate Intent

Attempted Enrollment in course(s) where:

CB09 COURSE-SAM-PRIORITY-CODE = A, B

CB04 COURSE-CREDIT-STATUS = C, D

Outcome

A student must successfully achieve the following outcome:

At Least 30 Units

CB04 COURSE-CREDIT-STATUS = C, D

SX03 ENROLLMENT-UNITS-EARNED >= 30 at your college and/or anywhere in the system

Calculation: Percent of Students Who Earned at Least 30 Units = Outcome/Cohort

APPENDIX A: ARCC INDICATORS

PERSISTENCE RATE

Definition: Percentage of cohort of first-time students with minimum of six units earned in their first Fall term in the CCC who return and enroll in the subsequent Fall term anywhere in the system.

The rate is based on three first-time student cohorts enrolled in Fall 2005 (Cohort 1), Fall 2006 (Cohort 2) and Fall 2007 (Cohort 3). Persistence was measured by their enrollment in Fall 2006 (Cohort 1), Fall 2007 (Cohort 2) and Fall 2008 (Cohort 3).

Data Source: Chancellor's Office Management Information System (COMIS)

Cohort

First Time Students Who Showed Intent to Persist:

1. Look systemwide to determine first time status. First-time status is defined as a student who took a credit course in the CCC system for the first time. Enrolled in Fall with prior Summer enrollment also qualifies.

AND

2. SX03 ENROLLMENT-UNITS-EARNED \geq 6 at your college and/or anywhere in the system

AND

Remove Students taking only PE classes:

CB03 COURSE-TOP-CODE NE 083500 or 083510

AND

Remove students who transferred to a four-year institution or received an award prior to the subsequent Fall.

Outcome

A student must successfully achieve the following outcome:

Persisted in the Subsequent Fall

Attempted any credit course the subsequent Fall

CB04 COURSE-CREDIT-STATUS = C, D

Calculation: Persistence Rate = Outcome/ Cohort

APPENDIX A: ARCC INDICATORS

ANNUAL SUCCESSFUL COURSE COMPLETION RATE FOR CREDIT VOCATIONAL COURSES

Methodology: The cohorts for vocational course completion rate consisted of students enrolled in credit vocational courses in the academic years of interest (2006-2007, 2007-2008, 2008-2009). These cohorts excluded “special admit” students, i.e., students currently enrolled in K-12 when they took the vocational course. Vocational courses were defined via their SAM (Student Accountability Model) priority code. SAM codes A, B, and C indicate courses that are clearly occupational. Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR.

Data Source: Chancellor’s Office Management Information System (COMIS)

Cohort

All of the following must be true:

1. SB11 STUDENT-EDUCATION-STATUS NE 10000
2. CB04 COURSE-CREDIT-STATUS = C, D
3. CB09 COURSE-SAM-PRIORITY-CODE = A, B, C
4. SX04 ENROLLMENT-GRADE = A, B, C, D, F, CR/P, NC/NP, I*, W, DR

Outcome

The student must complete the course with:

SX04 ENROLLMENT-GRADE = A, B, C, or CR/P

Calculation: Successful Course Completion Rate = Outcome/Cohort

APPENDIX A: ARCC INDICATORS

ANNUAL SUCCESSFUL COURSE COMPLETION RATE FOR CREDIT BASIC SKILLS COURSES

Methodology: The cohorts for basic skills course completion rate consisted of students enrolled in credit basic skills courses in the academic years of interest (2006-2007, 2007-2008, 2008-2009). These cohorts excluded “special admit” students, i.e., students currently enrolled in K-12 when they took the basic skills course. Basic skills courses were those having a course designation of B in CB08 (basic skills course). (Note that the CB08 = P for “Pre-collegiate basic skills” designation is no longer used under Title 5 or in COMIS and has been eliminated from these specifications). Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR.

Data Source: Chancellor’s Office Management Information System (COMIS)

Cohort

All of the following must be true:

1. SB11 STUDENT-EDUCATION-STATUS NE 10000
2. CB04 COURSE-CREDIT-STATUS = C
3. CB08 COURSE-BASIC-SKILLS-STATUS = B
4. SX04 ENROLLMENT-GRADE = A, B, C, D, F, CR/P, NC/NP, I*, W, DR

Outcome

The student must complete the course with:

SX04 ENROLLMENT-GRADE = A, B, C, or CR/P

Calculation: Successful Course Completion Rate = Outcome/Cohort ANNUAL SUCCESSFUL COURSE COMPLETION RATE FOR CREDIT

BASIC SKILLS COURSES

Methodology: The cohorts for basic skills course completion rate consisted of students enrolled in credit basic skills courses in the academic years of interest (2006-2007, 2007-2008, 2008-2009). These cohorts excluded “special admit” students, i.e., students currently enrolled in K-12 when they took the basic skills course. Basic skills courses were those having a course designation of B in CB08 (basic skills course). (Note that the CB08 = P for “Pre-collegiate basic skills” designation is no longer used under Title 5 or in COMIS and has been eliminated from these specifications). Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR.

Data Source: Chancellor’s Office Management Information System (COMIS)

Cohort

All of the following must be true:

1. SB11 STUDENT-EDUCATION-STATUS NE 10000
2. CB04 COURSE-CREDIT-STATUS = C
3. CB08 COURSE-BASIC-SKILLS-STATUS = B
4. SX04 ENROLLMENT-GRADE = A, B, C, D, F, CR/P, NC/NP, I*, W, DR

Outcome

The student must complete the course with:

SX04 ENROLLMENT-GRADE = A, B, C, or CR/P

Calculation: Successful Course Completion Rate = Outcome/Cohort

APPENDIX A: ARCC INDICATORS

IMPROVEMENT RATE FOR CREDIT ESL COURSES

Methodology: The ESL improvement rate cohorts consisted of students enrolled in credit ESL courses who successfully completed that initial course. Excluded were “special admit” students, i.e., students currently enrolled in K-12 when they took the ESL course. Only students starting at two or more levels below college level/transfer level were included in the cohorts. Taxonomy of Programs (TOP) codes were used to identify ESL courses. Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR. Students who successfully completed the initial ESL course were then followed across three academic years (including the year and term of the initial course). The outcome of interest was that group of students who successfully completed a higher-level ESL course or college level English course within three academic years of completing the first ESL course.

Cohorts were developed and followed for academic years 2004-2005 to 2006-2007, 2005-2006 to 2007-2008, and 2006-2007 to 2008-2009.

Data Source: Chancellor’s Office Management Information System (COMIS)

Cohort

All of the following must be true for cohort selection:

1. SB11 STUDENT-EDUCATION-STATUS NE 10000
2. CB03 COURSE-TOP-CODE = 4930.80, 4930.81, 4930.82, 4930.91, 4931.00
3. CB04 COURSE-CREDIT-STATUS = C
4. CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL NE A
5. SX04 ENROLLMENT-GRADE = A, B, C, CR/P

Outcome

Within 2 years from the qualifying enrollment for the cohort, the student completes a course with:

CB03 COURSE-TOP-CODE = 4930.80, 4930.81, 4930.82, 4930.83, 4931.00, 1501.** , 1503.** , 1504.** , 1507.**

CB04 COURSE-CREDIT-STATUS = C, D

CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL = Higher level than CB21 for cohort course

SX04 ENROLLMENT-GRADE = A, B, C, CR/P

Calculation: Credit ESL Improvement Rate = Outcome/Cohort

APPENDIX A: ARCC INDICATORS

IMPROVEMENT RATE FOR CREDIT BASIC SKILLS COURSES

Methodology: The basic skills improvement rate cohorts consisted of students enrolled in a credit basic skills English or Mathematics course who successfully completed that initial course. Excluded were “special admit” students, i.e., students currently enrolled in K-12 when they took the basic skills course. Only students starting at two or more levels below college level/transfer level were included in the cohorts. Taxonomy of Programs (TOP) codes were used to identify Math and English courses. Basic skills courses were those having a course designation of B in CB08 (basic skills course). (Note that the CB08 = P for “Pre-collegiate basic skills” designation is no longer used under Title 5 or in COMIS and has been eliminated from these specifications). Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR.

Students who successfully completed the initial basic skills course were followed across three academic years (including the year and term of the initial course). The outcome of interest was that group of students who successfully completed a higher-level course in the same discipline within three academic years of completing the first basic skills course.

Cohorts were developed and followed for academic years 2004-2005 to 2006-2007, 2005-2006 to 2007-2008, and 2006-2007 to 2008-2009.

Data Source: Chancellor’s Office Management Information System (COMIS)

Cohort

All of the following must be true for cohort selection:

1. SB11 STUDENT-EDUCATION-STATUS NE 10000
2. CB03 COURSE-TOP-CODE =
For Math: 4930.40, 4930.41, 4930.42
For English: 4930.21, 4930.70
3. CB04 COURSE-CREDIT-STATUS = C
4. CB08 COURSE-BASIC-SKILLS-STATUS = B
5. CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL NE A
6. SX04 ENROLLMENT-GRADE = A, B, C, CR/P

Outcome

Within 2 years from the qualifying enrollment for the cohort, the student completes a course with:

- CB03 COURSE-TOP-CODE =
For Math: 17**.**, 4930.40, 4930.41, 4930.42
For English: 1501.**, 1503.**, 1504.**, 1507.**, 4930.21, 4930.70, 4930.71
- CB04 COURSE-CREDIT-STATUS = C, D
- CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL = Higher level than CB21 for cohort course.
- SX04 ENROLLMENT-GRADE = A, B, C, CR/P

Calculation: Credit Basic Skills Improvement Rate = Outcome/Cohort

Source: CCCCCO ARCC Report 2010

APPENDIX B: ARCC PEER GROUPS

Introduction

This appendix documents the technical details of the peer grouping method used in the ARCC. Researchers and individuals with some background in statistical analysis will probably have little trouble understanding this material. We also assume that institutional researchers at each college or district will need to understand these technical details in order to help various local constituencies in their comprehension and usage of the peer group comparisons.

The Objective of Peer Grouping

To understand the methodology of the ARCC peer grouping, we should note the following objective that this analysis aimed to achieve.

Peer grouping will complement the other ARCC sources of information about college level performance by giving decision makers a way to compare each college's performance with the performances of other "like" colleges on each selected performance indicator (each ARCC outcome measure), in a fair and valid manner.

General Strategy of ARCC Peer Grouping

The Chancellor's Office (CCCCO) implemented a strategy for peer grouping that used the following four basic steps in the sequence shown below.

1. For each performance indicator/outcome use prior research and input from college officials/researchers to identify those factors that affect the outcome but that lie beyond the control of each college administration. (These uncontrollable factors are often referred to as "environmental factors.")
2. For the environmental factors of each performance indicator identify a feasible data source that the CCCCCO can use in its statistical analysis.
3. For each performance indicator, develop a regression model that will allow us to identify a parsimonious set of uncontrollable factors that the CCCCCO can use to "level the playing field" in any between-college comparison of performances.
4. Using the parsimonious set of uncontrollable factors identified by regression modeling, use *cluster analysis* (a standard multivariate statistical tool) to identify for a college and for each performance indicator those colleges that most closely resemble it (the college of interest) in terms of these uncontrollable factors.

These four steps entailed a large amount of staff work, and in the interest of efficiency, we limit this appendix to only the fourth step, the cluster analysis. Appendix C includes a listing of the environmental factors collected and a summary of the regression models.

Cluster Analysis As A General Tool

Cluster analysis is a well-developed quantitative method of identifying groups of entities from a population of entities. Major references for cluster analysis became available to researchers as early as 1963 (Sokal & Sneath, 1963). This method can apply to any kind of entity, and past applications have clustered entities as diverse as colleges, states, cities, students, sports teams and players, patients, hospitals, and businesses, to mention a few. In past years, researchers have used it for developing taxonomies, especially with respect to the biological studies (i.e., horticulture, zoology, and entomology).

Depending upon the objective of the researcher, the cluster analysis chooses one or more measurements (aka "variables") of each entity in a population to produce a numerical indicator of "distance" between each entity in a given population. The researcher's objective is imperative

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in that this will drive the choice of measurements that more or less “determine” the eventual groupings or clusters. If the researcher chooses measurements that poorly reflect the researcher’s objective, then the cluster analysis will probably produce a grouping that has marginal validity, if any.

Based upon the aforementioned inter-entity distances, cluster analysis then proceeds to identify sets of entities within a defined population by comparing sets of distances. In the vernacular of cluster analysis, these distances are also called “proximities.” If the population under study contains a very unique entity in it, then the cluster analysis may produce, among its groupings, a cluster of one (i.e., a group containing only one case) to preserve the uniqueness of this one entity with respect to the population under study and the researcher’s objective.

The development of computers greatly facilitated cluster analysis so that complex calculations for cluster analysis became very feasible for applied social research and evaluation. The major statistical software programs on the market today all offer routines to execute cluster analysis. In the ARCC analysis, CCCC staff used one particular package known as *SPSS version 12*.

A procedure known as *hierarchical clustering* exploits computer power by moving through a large number of iterations to progressively “join” one college to another college that the computer finds is its “closest neighbor.” The program will then join this resulting pair to the next most similar college (the next closest neighbor), and so on until no other colleges of sufficient similarity can be joined to this initial set. The procedure then repeats this “joining” process for each of the remaining colleges that the program has not already joined with some other college. Hierarchical clustering has great popularity among researchers because researchers can use the computer-generated record of the entire “joining” process as a tool to evaluate the quality of the cluster groupings (Everitt, Landau, & Leese, 2001). The ARCC peer grouping used this well established procedure.

Cluster Analysis in the ARCC Peer Grouping

CCCC staff reviewed the standard options for conducting a cluster analysis method and used the following four steps for the ARCC peer grouping:

1. Define a practical number of clusters to be identified.
2. Select a proximity measure that effectively captures the difference or “distance” between colleges on the basis of their levels of analyst-specified variables (the uncontrollable factors we had identified for each ARCC outcome).
3. Select and use a cluster identification algorithm that applies a specific decision rule (i.e., a type of logic) to cluster the colleges into mutually exclusive groups.
4. Prevent bias in the clustering that may result from using variables that use different scales of measurement (i.e., driving miles vs. student headcounts or percentage of students, and so forth).

The following section reports on how CCCC implemented the four steps listed above.

1. The peer grouping identifies six distinct peer groups for all the community colleges in the system. This “target” of six groups addressed administrative concerns over the identification of too many peer groups and a plethora of singlecollege peer groups (that is, the finding of some colleges that lacked any statistical peers for comparison).
2. The chosen measure of distance between each community college in the system is

APPENDIX B: ARCC PEER GROUPS

the so-called *squared Euclidean distance*. This is the most common measure of proximity in cluster analysis. For the quantitatively inclined reader, the formula for computing the Euclidean distance is as follows:

$$d_{ij} = \left[\sum_{k=1}^p (x_{ik} - x_{jk})^2 \right]^{1/2}$$

where x_{ik} and x_{jk} are, respectively, the k th variable value of the p -dimensional observations for individuals i and j (Everitt, Landau, & Leese, 2001).

3. In the peer grouping for all seven of the outcomes, CCCC staff used *Ward's method* for clustering because staff found this method to work well with the ARCC data.

According to Bailey (1994), *Ward's method* "begins with each object treated as a cluster of one. Then objects are successively combined. The criterion for combination is that the within-cluster variation as measured by the sum of withincluster deviation from cluster means (error sum of squares) is minimized. Thus, average distances among all members of the cluster are minimized." *Ward's method* has a tendency to produce clusters of approximately similar size (i.e., number of members in each cluster) (Everitt, Landau, & Leese, 2001).

1. The CCCC staff converted the measures of the uncontrollable factors for each outcome so that their different units of measurement would have no effect upon the clustering solutions. Staff converted these measures by *standardizing the variables to unit variance* (also known as converting measurements to *z-scores*). Major statistical programs readily perform this conversion with the following formula:

$$z = (\text{raw score for a case} - \text{mean of the sample}) / (\text{standard deviation of the sample})$$

(Snedecor & Cochran, 1980).

Concluding Thought

An excellent piece of advice that we constantly entertained during the peer group analysis covers the use of cluster analysis:

"Cluster analysis methods involve a mixture of imposing a structure on the data and revealing that structure which actually exists in the data...To a considerable extent a set of clusters reflects the degree to which the data set conforms to the structural forms embedded in the clustering algorithm...In the quest for clusters two possibilities are often overlooked...The data may contain no clusters...The data may contain only one cluster..." (Anderberg, 1973).

Source: CCCC ARCC Report 2010

APPENDIX C: Employment Rate

This indicator is the percentage of CTE program leavers and completers who did not transfer to a two or four year institution and were found during one of the four quarters following the cohort year in an apprenticeship program, UI covered employment, the federal Government, or the military.

Although the state currently does not perform data matches with the adult education offered apprenticeship programs, the federal government, or the military, the State will continue to pursue those administrative data matches.

Numerator: The number of CTE concentrators in the denominator who were found during one of the four quarters following the cohort year in UI covered employment (time period), or an apprenticeship program, the federal Government, or the military in the year following the cohort year.

Denominator: The number of CTE concentrators who were leavers or completers and did not continue in any institution.

Note: The denominator includes completers who stayed but does not include Transfer Prepared as completers.

Source: CCCC Core Indicator Methodology and Report Specifications

APPENDIX D: Noel Levitz

Random samples of students at Cuesta and at other community colleges across the nation were asked to rate their level of satisfaction with various components of their college experience. The particular questions that comprise the two constructs of interest are outlined below:

Responsiveness to Diverse Populations

81. Institution's commitment to part-time students?
82. Institution's commitment to evening students?
83. Institution's commitment to older, returning learners?
84. Institution's commitment to under-represented populations?
85. Institution's commitment to commuters?
86. Institution's commitment to students with disabilities?

Campus Climate

1. Most students feel a sense of belonging here.
2. Faculty care about me as an individual. 6.08
16. The college shows concern for students as individuals.
22. People on this campus respect and are supportive of each other
27. The campus staff are caring and helpful.
28. It is an enjoyable experience to be a student on this campus.
31. The campus is safe and secure for all students.
36. Students are made to feel welcome on this campus.
44. I generally know what's happening on campus.
45. This institution has a good reputation within the community.
52. This school does whatever it can to help me reach my educational goals.
57. Administrators are approachable to students.
59. New student orientation services help students adjust to college.
63. I seldom get the "run-around" when seeking information on this campus.
67. Channels for expressing student complaints are readily available.

Source: Noel Levitz Student Satisfaction Inventory