Focus On Results

Accountability Reporting for the California Community Colleges

A Report to the Legislature, Pursuant to AB 1417
(Pacheco, Stat. 2004, Ch. 581)

California Community Colleges Chancellor's Office

Jack Scott, Chancellor

Patrick Perry, Vice Chancellor
Technology, Research, and Information Systems

March 31, 2012

(intentionally left blank for production purposes)

California Community Colleges Chancellor's Office

Members of the Board

Manuel Baca
Geoffrey L. Baum
Natalie Berg
Joseph J. Bielanski Jr.
Danny E. Hawkins
Scott Himelstein
Lance T. Izumi
Peter MacDougall
Deborah Malumed
Henry A. J. Ramos
Gary Reed
Jurena Storm
Ning Yang

Officers of the Board

Scott Himelstein
President

Chancellor's Office

Jack Scott
Chancellor

Steven Bruckman
Executive Vice Chancellor of Operations and General Counsel

Erik Skinner
Executive Vice Chancellor for Programs

Paul Feist
Vice Chancellor for Communications

Marlene Garcia
Vice Chancellor for Governmental Relations

Linda Michalowski
Vice Chancellor for Student Services and Special Programs

Patrick Perry
Vice Chancellor for Technology, Research, and Information Systems

Barry Russell
Vice Chancellor for Academic Affairs

Van Ton-Quinlivanl
Vice Chancellor for Economic and Workforce Development

Dan Troy
Vice Chancellor for Fiscal Policy

Blank page inserted for reproduction purposes only.

Table of Contents

Appendices

Blank page inserted for reproduction purposes only.

Executive Summary

Introduction

In 2004, Assembly Bill 1417 triggered the creation of a performance measurement system for the California Community Colleges (CCC). That legislation and ensuing budget action authorized the California Community Colleges Chancellor's Office (CCCCO) to design and implement a performance measurement system that contained performance indicators for the system and its colleges. As per legislative intent, the CCCCO collaborated with the system's colleges and advisory structure, a panel of national experts, the Legislative Analyst's Office, the Department of Finance, and the Secretary of Education to formulate this comprehensive system that has become known as "ARCC" (Accountability Reporting for the Community Colleges). In recognizing that the initial report in 2007 required the CCCCO to test innovative ideas about performance measurement and to use a massive state database, the CCCCO completed the 2007 ARCC report as a pilot report for the Legislature. The 2012 ARCC report builds upon the prior reports through various improvements in data quality and a new year of data.

Systemwide Performance

This report will benefit policy makers by detailing many of the critical contributions that the California Community Colleges have made in recent years. The most notable findings at the state level include the following:

- A large number of Californians access and use the CCC system; participation rates are high, with about 83 out of every 1,000 people (ages 18 to 65) in the state enrolled in a CCC in 2010-2011.

- The system enrolls almost one-fourth of all 20 to 24-year olds in California, with participation rates of 236 per 1,000 for 2010-2011.

- Community college students who earned a vocational degree or certificate in 2005-2006 saw their wages jump from $29,750 (for the last year before receipt of the award) to $58,777 four years after earning their degree (2009), an increase of almost 100 percent.

- In 2010-2011, the system transferred more than 112,000 students to four-year institutions (public, private, in-state, and out-of-state). The California State University (CSU) system continues as the most frequent transfer destination for community college students with the enrollment of almost 57,000 students from the community colleges. Nearly 16,000 community college students enrolled in the University of California (UC) system, the state's most selective public higher education system. This figure continues a six-year trend of increasing transfers to the UC system.

Executive Summary

- In 2010-2011, the system continued to contribute to the state's health care labor force, more than 8,000 students earned degrees or certificates in nursing.

- The system's contribution in 2010-2011 to the state's workforce included more than 66,000 associate degrees and certificates in vocational/occupational areas.

College Level Performance
The bulk of the ARCC report covers each college's performance on eight critical indicators.

The table below lists the seven indicators for which ARCC has complete data. These numbers are percentages of success among target populations that the colleges and the CCCCO jointly defined. As a quick snapshot of how the system has done on these indicators, this table displays the figures for the year in which the most recent data are available. If a person needs to analyze the performance of a specific community college, he/she should refer to the individual college rates that appear in the section for "College Level Indicators" rather than to these systemwide rates.

College Level Performance Indicator	State Rate
1. Student Progress & Achievement (2005-06 to 2010-11)	53.6%
2. Completed 30 or More Units (2005-06 to 2010-11)	73.5%
3. Fall to Fall Persistence (Fall 2009 to Fall 2010)	71.3%
4. Vocational Course Completion (2010–11)	76.7%
5. Basic Skills Course Completion (2010-11)	62.0%
6. ESL Course Improvement (2008-09 to 2010-11)	54.6%
7. Basic Skills Course Improvement (2008-09 to 2010-11)	58.6%

Because the ARCC indicators have unique definitions, we cannot compare these indicators to those generated for other states or by other studies of the California Community Colleges. The evaluation of individual college performance requires the use of the extensive tabulations that we cover next.

Each of the community colleges covered in this report has six pages of information to facilitate and stimulate discussions about college performance within each community. In these six pages per college, the report shows (1) the three-year trend for each of the seven indicators; (2) the college profile (i.e., its enrollment demographics); (3) a comparison of its performance with a peer group (i.e., colleges that have similar

environments that affect an indicator); and (4) a self-assessment by each college. Together, this information provides readers with a fair and comprehensive picture of the achievements at any community college—a picture that simple scorecards or rankings would fail to present.

The ensemble of information in the six pages must act jointly as the inputs for any evaluation of a college's performance. Each piece of information contributes something to an evaluation of performance. For example, the year-to-year information alerts us to any trends that may be occurring at a college. The peer grouping information gives us a useful base of comparison (across equally advantaged institutions) for the most recent time period. The college's self-assessment substantially enhances both the year-to-year information and the peer group information by identifying the unique factors of a college that affect its performance. The college demographic profile, in turn, supplies a unique snapshot of the college's service population, information that local officials can use to evaluate community access and the overall enrollment picture.

These six pages for each college deliver the essence of the ARCC's objective for local accountability. Ideally, each college's local governing board and local community will use this package of information for data-based policy discussions. This strategy will benefit communities throughout the state because it equips them with data to address their local priorities. To ensure that this process occurs in each community, the legislation for ARCC requires each college to submit to the CCCCO by March 15, 2013, documentation of interaction by each local board of trustees with the 2012 ARCC report.

Conclusion

This sixth year of the ARCC effort improves the annual report that provides the State Legislature and the Governor's Office an ongoing, cost-effective structure for performance improvement that respects and promotes local decision-making. Community colleges (except for Hartnell College, Gavilan College and College of the Sequoias) have already shared the 2011 report with their local board of trustees, as required, and many college administrations have subsequently begun analyses to leverage the data and findings in the ARCC project. As evidenced by the self-assessments within this report, the community colleges have used the ARCC report in different ways to learn how they can improve their performances.

Blank page inserted for reproduction purposes only.

Introduction to the 2012 ARCC Report

Background

This report on a set of performance indicators for the California Community Colleges (CCC) meets a legislative requirement that resulted from Assembly Bill 1417 (Pacheco, Statutes of 2004, Chapter 581). The details of the legislation appear in Appendix F of this report. For clarity's sake, we have named this reporting system *Accountability Reporting for the Community Colleges* (or *ARCC*). The report itself has the title of "Focus On Results." As required by the Legislature, the CCC Chancellor's Office (CCCCO) will produce this report each year and disseminate it so that each college will share the report with its local board of trustees. The Chancellor's Office will also make the report available to state government policymakers and the public at large.

The report's objectives are to make policymakers, local college officials, and elected boards aware of system and college performance in specific areas of effort and to inform the public about overall system performance. Readers will observe that the 2012 report continues to cover noncredit courses as required by Senate Bill 361 (Scott, Statutes of 2006, Chapter 631). Again, this coverage of noncredit outcomes only extends across courses designated as part of the "Enhanced Noncredit" funding. For clarity, this report refers to this group of noncredit courses as CDCP (an acronym for the objective known as Career Development and College Preparation). Readers who want additional details on CDCP performance should refer to a supplemental report that the ARCC staff produce as a follow-up to *Focus On Results*. The CCCCO will issue this supplemental report after it has released *Focus On Results* because of scheduling and resource limitations.

Focus On Results drew upon the contributions of many parties. The framework for ARCC used the expertise of a team of researchers from the Research and Planning Group for the California Community Colleges (i.e., the RP Group), a panel of nationally recognized researchers on college performance, a statewide technical advisory workgroup, and staff at the Chancellor's Office. In Appendix H we list the individuals who played important roles in producing the 2012 ARCC Report.

How to Use This Report

We acknowledge that a variety of people will see this report, and we recognize that individuals will differ widely in their reading objectives and in their familiarity with the report's topic. With this in mind, we have tried to design the report so that policy makers at both the state and local levels will have a clear presentation of essential performance indicators for the system and for each community college within it. The body of the report emphasizes tables of summary data that provide snapshots of system and college level performance. Readers should read the brief introductions to each of these sections (system and college level) to understand their contents. These introductions cover the framework for ARCC, and they should help most readers to understand the performance indicators cited in this report. Appendix E, which presents a short list of terms and abbreviations, may also help the general reader.

We recognize that researchers, analysts, and college officials will require documentation of the methodology for the performance indicators in this report. Such technical details appear in three of the appendices. Appendix B (methods for calculating the indicators), Appendix C (regression analyses for the peer grouping), and Appendix D (cluster analyses for the peer grouping) specifically address methodological issues, and they tend to require technical knowledge on the part of the reader.

The report's first section covers the system's overall performance over time, and this will help readers to see the broad context of the system's performance. The section that follows system performance presents specific information for each college. The first two pages of college-level tables display how that college performed over time on eight basic indicators. The year-to-year figures for these performance indicators should give readers a good idea of how any given college has done during the past few years, especially in terms of its progress in areas that are generally recognized as critical in community colleges.

The third and fourth pages for each college display basic demographic data for the college's enrollment. This information will help readers understand the student population served by that college. For many readers, such information can indicate relevant aspects of a college's effectiveness (i.e., who does the college serve?), plus it can provide additional context for the reported performance indicators.

The fifth page for each college shows the "peer grouping" information for the college. On this page, readers will find a comparison of a college's performance on each of the seven indicators that have adequate data for peer grouping. For each of these seven performance indicators, we have performed a statistical analysis (peer grouping) to identify other California Community Colleges that most closely resemble the college in terms of environmental factors that have linkage to (or association with) the performance indicator. Interested readers should refer to Appendix A to see the names of the colleges that comprise each peer group. We emphasize that the peer group results are rough guides for evaluating college level performance because each college may have unique local factors that we could not analyze statistically for the peer group identification. Because year-to-year stability in peer grouping facilitates local planning and analysis, the 2012 peer groups will remain the same as they were in the 2009 ARCC report. Also, this report will continue to omit from peer grouping the indicator for Career Development and College Preparation (CDCP, or Enhanced Noncredit) courses.

The sixth page for a college shows that college's self-assessment. This brief statement from the college administration may note, among other things, unique factors that our statistical analysis may have missed. The self-assessment is important because it may help to explain the performance figures for a college. The ARCC staff in the Chancellor's Office do not edit these self-assessments from the college administrators, and the only requirement for the content is that it stay within a 500-word limit. Because the word limit forces the self-assessment to focus upon a few basic points, some readers may wish to follow-up with a college that may have other analyses or data that it could not include in the ARCC's brief self-assessment.

The best use of the ARCC Report requires the integration of information from various parts of the report. Judgments about the performance of any particular college should especially pay attention to the sections on year-to-year performance, peer group comparison, enrollment demographics, and the college self-assessment. A focus upon only one of these pieces of information will probably provide an incomplete evaluation of college performance, and this may lead one to make unfair judgments about an institution. Consequently, we hope that users of this report will maintain this multi-dimensional viewpoint (from the different report sections) as they draw their conclusions or as they communicate about the report to other people.

The 2012 report contains numerous changes to past data as well as new data for the most recent academic year. For this reason, analysts should rely primarily upon the 2012 report instead of data from prior ARCC reports. The Chancellor's Office MIS (Management Information System) unit has continued to implement various data improvements that are virtually impossible to complete within a narrow time frame.

Additional information about ARCC is available on the ARCC website:
http://www.cccco.edu/OurAgency/TechResearchInfo/ResearchandPlanning/ARCC/tabid/292/Default.aspx

If you have any questions or comments about the report, please e-mail them to:
arcc@cccco.edu.

Blank page inserted for reproduction purposes only.

ARCC 2012 Report:
An Introduction to the Systemwide Indicators

The Accountability Reporting for the Community Colleges (ARCC) framework specifies that community college performance data should be aggregated, analyzed, and reported at two levels: the individual college level (college level indicators) and across the community college system (systemwide indicators).

Tables 1 through 18 and Figures 1 through 6 in the following section of the ARCC report present results for the seven performance indicators chosen for **systemwide** accountability reporting organized into four major categories:

- Student Progress and Achievement – Degree/Certificate/Transfer
- Student Progress and Achievement – Vocational/Occupational/Workforce Development
- Pre-Collegiate Improvement – Basic Skills and ESL
- Participation Rates

The seven performance indicators presented in this section are:

1. The annual number and percentage of baccalaureate students graduating from UC and CSU who attended a California Community College
2. The annual number of Community College transfers to four-year institutions
3. The transfer rate to four-year institutions from the California Community College System
4. The annual number of degrees/certificates conferred by vocational programs
5. The increase in wages following completion of a vocational degree/certificate
6. The annual number of basic skills improvements
7. Systemwide participation rates per 1,000 population (by selected demographics).

The data sources and methodology for each of the indicators can be found in Appendix B.

The time periods and data sources differ across performance indicators so it is important to pay attention to the dates and information specified in the column headings and titles for each table or figure.

Note that these systemwide indicators are not simply statewide aggregations of the college level indicators presented elsewhere in this report. Some systemwide indicators cannot be broken down to a college level or do not make sense when evaluated on a college level. For example, students may transfer or attend courses across multiple community colleges during their period of enrollment and their performance outcomes must be analyzed using data from several community colleges rather than from an individual college.

Beginning with the 2010 ARCC report, additional analysis revealed that a data-reporting artifact may occur for the year that an institution joins the National Student Clearinghouse (NSC). All of the matches that occur for that institution from previous

years (a cumulative count that spans pre-NSC membership years) would be reported by the NSC as transfers for that first year. To eliminate this artifact from the ARCC report, we zero out the transfer count for the first year that an institution joins the NSC.

Blank page inserted for reproduction purposes only.

Student Progress and Achievement: Degree/Certificate/Transfer

Figure 1:
Annual Number of California State University (CSU) and University of California (UC) Baccalaureate Students from 2005-2006 to 2010-2011 Who Attended a California Community College (CCC)

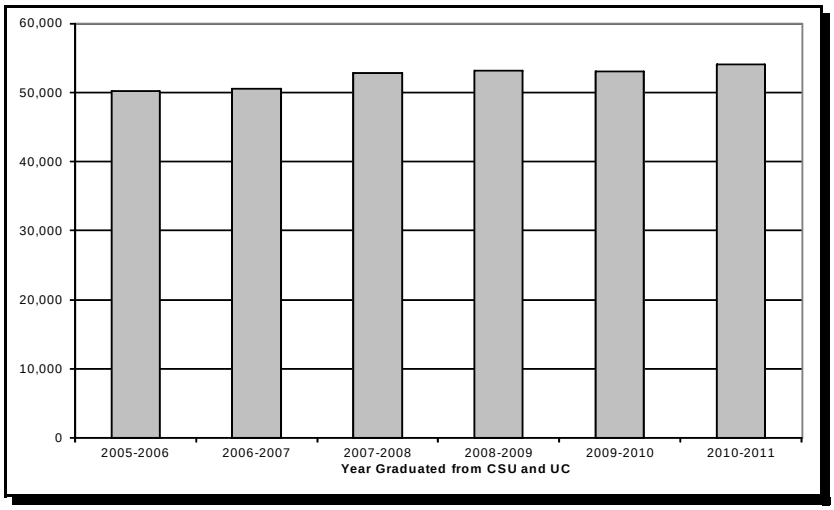


Table 1:
Annual Number of California State University (CSU) and University of California (UC) Baccalaureate Students from 2005-2006 to 2010-2011 Who Attended a California Community College (CCC)

Year Graduated From CSU or UC

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
Total BA/BS (CSU & UC)	110,990	112,474	115,548	117,309	120,274	124,666
Total Who Attended CCC	50,248	50,611	52,825	53,238	53,124	54,090
CSU and UC Percent	45.3%	45.0%	45.7%	45.4%	44.2%	43.4%

Table 2:
Annual Number and Percentage of CSU Baccalaureate Students from 2005-2006 to 2010-2011 Who Attended a CCC

Year Graduated From CSU

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
Total BA/BS from CSU	69,350	70,887	73,132	74,643	75,418	77,731
Total Who Attended CCC	38,365	38,827	40,337	40,968	40,606	40,831
CSU Percent	55.3%	54.8%	55.2%	54.9%	53.8%	52.5%

Table 3:
Annual Number and Percentage of UC Baccalaureate Students from 2005-2006 to 2010-2011 Who Attended a CCC

Year Graduated From UC

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
Total BA/BS from UC	41,640	41,587	42,416	42,666	44,856	46,935
Total Who Attended CCC	11,883	11,784	12,488	12,270	12,518	13,259
UC Percent	28.5%	28.3%	29.4%	28.8%	27.9%	28.2%

Results:

Figure 1 and Table 1 present a slight increase in 2010-2011 of the annual number of California State University (CSU) and University of California (UC) baccalaureate degree recipients who attended a California Community College (CCC). However, Table 1 also reflects a small decrease in the percentage of graduates who originally attended a CCC beginning in 2008-20009. Table 2 displays the annual number and percentage of CSU students and Table 3 portrays the UC students.

For Methodology and Data Source, see Appendix B.

Student Progress and Achievement: Degree/Certificate/Transfer

Figure 2:
Annual Number of California Community College Transfers to Baccalaureate Granting Institutions from 2005-2006 to 2010-2011

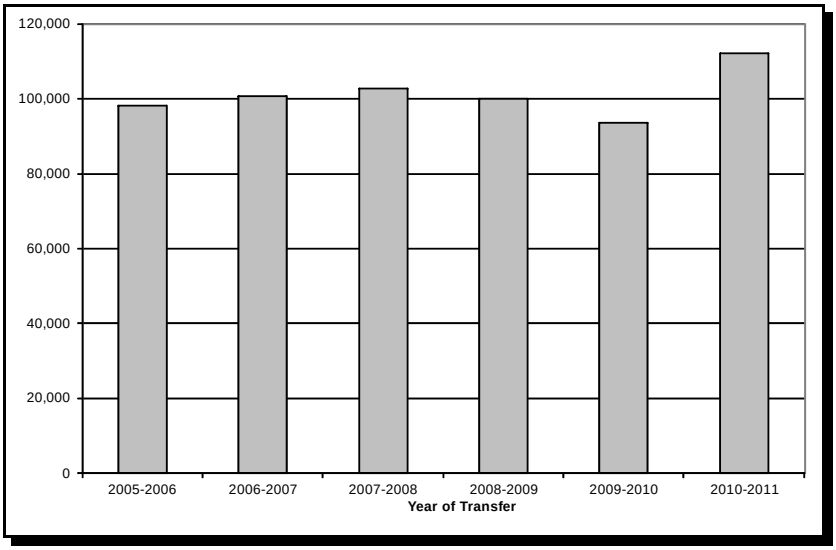


Table 4:
Annual Number of California Community College Transfers to Baccalaureate Granting Institutions from 2005-2006 to 2010-2011

Year of Transfer

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
Total Transfers	98,254	100,689	102,785	100,086	93,666	112,327

Table 5:
Annual Number of California Community College Transfers to California State University (CSU), University of California (UC), In-State Private (ISP) and Out-of-State (OOS) Baccalaureate Granting Institutions

Year of Transfer

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
CSU Transfers	52,641	54,391	54,971	49,770	37,674	56,959
UC Transfers	13,510	13,871	13,909	14,059	14,702	15,976
ISP Transfers	19,433	19,338	19,996	20,919	23,812	20,428
OOS Transfers	12,670	13,089	13,909	15,338	17,478	18,964

Results:

Figure 2 and Table 4 feature the annual number of California Community College (CCC) transfers to four-year institutions across six years. Table 5 displays the annual number of transfers for four segments, California State University (CSU); University of California (UC); In-State Private (ISP); and Out-of-State (OOS) four-year institutions.

For Methodology and Data Source, see Appendix B.

Student Progress and Achievement: Degree/Certificate/Transfer

Figure 3:
Annual Number of California Community College Transfers to California State University (CSU) from 2005-2006 to 2010-2011

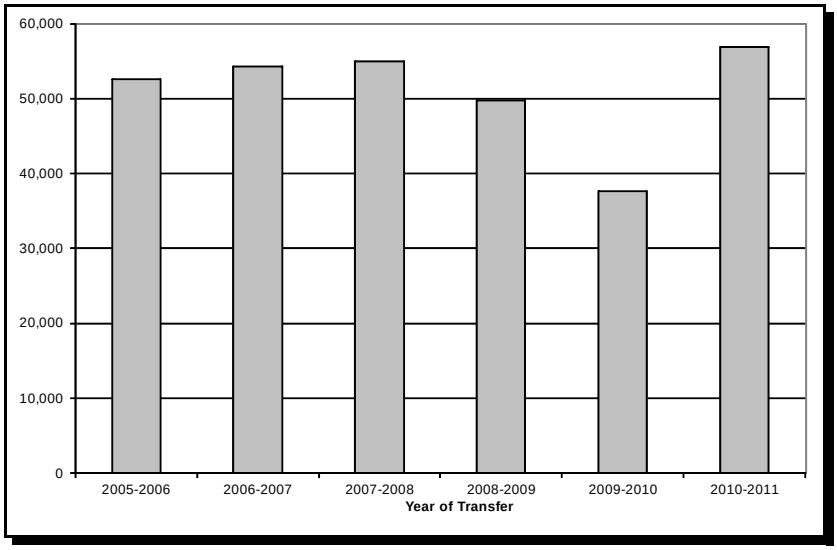


Table 6:
Annual Number of California Community College Transfers to California State University (CSU) from 2005-2006 to 2010-2011

Year of Transfer

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
CSU Transfers	52,641	54,391	54,971	49,770	37,674	56,959

Results:

Figure 3 and Table 6 display the annual number of California Community College (CCC) transfers to California State University (CSU). The number of transfers increased from 2005-2006 to 2007-2008 but decreases the subsequent two years (2008-2009 and 2009-2010) before increasing substantially in 2010-2011.

For Methodology and Data Source, see Appendix B.

Student Progress and Achievement: Degree/Certificate/Transfer

Figure 4:
Annual Number of California Community College Transfers to the University of California (UC) from 2005-2006 to 2010-2011

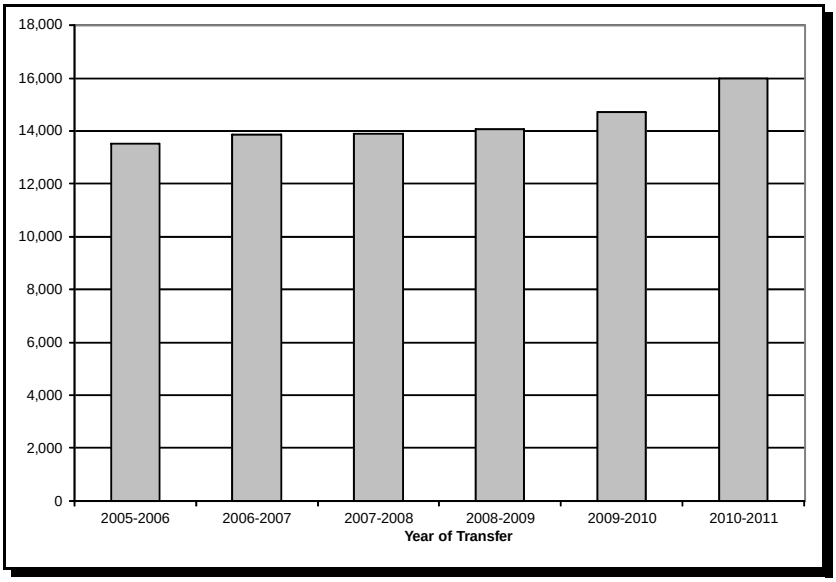


Table 7:
Annual Number of California Community College Transfers to the University of California (UC) from 2005-2006 to 2010-2011

Year of Transfer

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
UC Transfers	13,510	13,871	13,909	14,059	14,702	15,976

Results:

Figure 4 and Table 7 illustrate the annual number of California Community College (CCC) transfers to University of California (UC). The number of transfers increases across the six-year period.

For Methodology and Data Source, see Appendix B.

Student Progress and Achievement: Degree/Certificate/Transfer

Figure 5:
Annual Number of California Community College Transfers to In-State Private (ISP) and Out-of-State (OOS) Baccalaureate Granting Institutions from 2005-2006 to 2010-2011

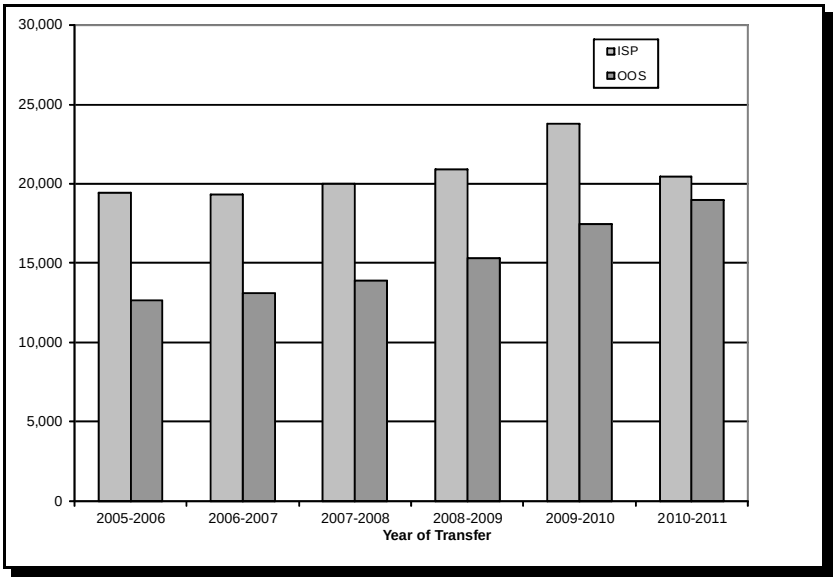


Table 8:
Annual Number of California Community College Transfers to In-State Private (ISP) and Out-of-State (OOS) Baccalaureate Granting Institutions from 2005-2006 to 2010-2011

Year of Transfer

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
ISP Transfers	19,433	19,338	19,996	20,919	23,812	20,428
OOS Transfers	12,670	13,089	13,909	15,338	17,478	18,964

Results:

The annual number of California Community College (CCC) transfers to In-State Private (ISP) and Out-of-State (OOS) four-year institutions is displayed in Figure 5 and Table 8.

For Methodology and Data Source, see Appendix B.

Student Progress and Achievement: Degree/Certificate/Transfer

Table 9:
Transfer Rate to Baccalaureate Granting Institutions

Percentage of first-time students with a minimum of 12 units earned who attempted transfer-level Math or English during enrollment who transferred to a Baccalaureate granting institution within six years.

	2003-2004 to 2008-2009	2004-2005 to 2009-2010	2005-2006 to 2010-2011
Transfer Rate	41.2%	41.2%	41.7%

Results:

Table 9 reflects the statewide transfer rate to four-year institutions for three different cohorts of first-time students. The cohorts include students who earned at least 12 units and who attempted transfer-level Math or English during the six-year enrollment period.

For Methodology and Data Source, see Appendix B

Table 10: Annual Number of Vocational Awards by Program from 2008-2009 to 2010-2011 (Program Title based on four-digit TOP Code, Alphabetical Order)

Includes Certificates Requiring Fewer Than 18 Units

Program Title	Total Credit Awards			AA/AS Degrees			Certificates (Credit)		
	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011
Accounting	2,553	2,669	3,027	1,042	1,086	1,287	1,511	1,583	1,740
Administration of Justice	6,191	5,542	5,412	2,084	2,322	2,431	4,107	3,220	2,981
Aeronautical and Aviation Technology	332	387	491	51	48	71	281	339	420
Agricultural Power Equipment Technology	97	80	96	14	11	11	83	69	85
Agriculture Business, Sales and Service	98	73	87	63	64	77	35	9	10
Agriculture Technology and Sciences, General	50	29	51	26	22	34	24	7	17
Animal Science	495	477	505	324	286	313	171	191	192
Applied Design	21	9	11	5	7	8	16	2	3
Applied Photography	148	211	241	66	97	73	82	114	168
Architecture and Architectural Technology	444	400	439	212	196	227	232	204	212
Athletic Training and Sports Medicine	21	16	23	17	16	23	4	0	0
Automotive Collision Repair	173	139	234	27	26	24	146	113	210
Automotive Technology	1,889	2,044	2,689	328	307	312	1,561	1,737	2,377
Aviation and Airport Management and Services	173	212	240	116	119	140	57	93	100
Banking and Finance	57	67	56	34	25	27	23	42	29
Biotechnology and Biomedical Technology	101	188	161	27	46	43	74	142	118
Business Administration	2,703	3,180	3,500	2,360	2,746	3,010	343	434	490
Business and Commerce, General	1,459	1,646	1,644	1,296	1,462	1,459	163	184	185
Business Management	2,096	1,510	1,596	884	846	894	1,212	664	702
Cardiovascular Technician	142	159	70	62	54	38	80	105	32
Chemical Technology	5	10	4	3	5	2	2	5	2
Child Development/Early Care and Education	7,142	5,990	6,222	1,897	1,795	1,859	5,245	4,195	4,363
Civil and Construction Management Technology	552	515	477	120	123	128	432	392	349
Commercial Art	55	56	52	39	31	23	16	25	29
Commercial Music	312	241	307	56	66	80	256	175	227
Community Health Care Worker	8	17	67	3	3	4	5	14	63
Computer Information Systems	576	567	538	314	312	298	262	255	240
Computer Infrastructure and Support	561	677	716	201	245	238	360	432	478
Computer Software Development	357	285	312	92	121	122	265	164	190
Construction Crafts Technology	1,168	948	1,011	130	117	147	1,038	831	864

Table 10 *(continued)*

Program Title	Total Credit Awards			AA/AS Degrees			Certificates (Credit)		
	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011
Cosmetology and Barbering	1,538	1,552	1,453	91	108	113	1,447	1,444	1,340
Customer Service	5	8	19	1	0	1	4	8	18
Dental Occupations	927	1,021	898	426	417	382	501	604	516
Diagnostic Medical Sonography	74	71	95	47	25	40	27	46	55
Diesel Technology	261	248	236	49	36	33	212	212	203
Digital Media	558	614	719	241	220	261	317	394	458
Drafting Technology	528	575	472	174	194	177	354	381	295
Educational Aide (Teacher Assistant)	103	49	75	22	27	35	81	22	40
Educational Technology	2	3	10	1	1	0	1	2	10
Electro-Mechanical Technology	28	45	30	6	10	3	22	35	27
Electro-Neurodiagnostic Technology		19	2		19	2		0	0
Electrocardiography	20	20	67	0	0	0	20	20	67
Electronics and Electric Technology	956	938	889	232	216	235	724	722	654
Emergency Medical Services	1,934	1,534	1,540	6	2	4	1,928	1,532	1,536
Engineering Technology, General	20	25	30	12	14	21	8	11	9
Environmental Control Technology	479	533	620	56	73	110	423	460	510
Environmental Technology	120	206	159	10	22	43	110	184	116
Family and Consumer Sciences, General	116	91	89	115	89	83	1	2	6
Family Studies	43	9	23	42	8	19	1	1	4
Fashion	406	339	433	120	138	188	286	201	245
Fire Technology	2,786	2,921	2,910	883	985	1,095	1,903	1,936	1,815
Food Processing and Related Technologies		1	2		1	0		0	2
Forestry	50	29	53	21	12	18	29	17	35
Gerontology	75	98	103	16	16	18	59	82	85
Graphic Art and Design	350	447	406	160	213	217	190	234	189
Health Information Technology	175	297	363	49	99	121	126	198	242
Health Occupations, General	59	66	196	46	42	135	13	24	61
Health Professions, Transfer Core Curriculum	291	323	493	286	321	465	5	2	28
Horticulture	346	405	450	121	129	124	225	276	326
Hospital and Health Care Administration		2			1			1	
Hospital Central Service Technician	36	43	21	0	0	0	36	43	21

Table 10 *(continued)*

Program Title	Total Credit Awards			AA/AS Degrees			Certificates (Credit)		
	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011
Hospitality	403	344	395	116	112	133	287	232	262
Human Services	1,479	1,747	1,753	441	557	564	1,038	1,190	1,189
Industrial Systems Technology and Main.	91	121	125	8	21	17	83	100	108
Information Technology, General	156	136	110	2	1	17	154	135	93
Instrumentation Technology	2	2	2	1	1	2	1	1	0
Insurance	7	3	4	2	0	1	5	3	3
Interior Design and Merchandising	415	427	341	161	144	123	254	283	218
International Business and Trade	296	143	111	47	46	33	249	97	78
Journalism	90	108	106	66	80	73	24	28	33
Labor and Industrial Relations	11	22	12	3	2	2	8	20	10
Laboratory Science Technology	15	19	15	7	6	4	8	13	11
Legal and Community Interpretation	50	67	51	9	14	6	41	53	45
Library Technician (Aide)	143	173	147	32	33	43	111	140	104
Logistics and Materials Transportation	37	57	67	3	4	10	34	53	57
Manufacturing and Industrial Technology	889	793	869	146	149	164	743	644	705
Marine Technology		23	47		7	6		16	41
Marketing and Distribution	228	309	335	103	145	153	125	164	182
Mass Communications	5	2	7	4	1	7	1	1	0
Massage Therapy	40	42	68	9	8	20	31	34	48
Medical Assisting	922	1,025	978	130	175	233	792	850	745
Medical Laboratory Technology	126	110	114	16	20	21	110	90	93
Mortuary Science	51	55	58	51	55	58	0	0	0
Natural Resources	63	63	75	38	32	44	25	31	31
Nursing	8,519	8,388	8,077	5,974	6,233	5,869	2,545	2,155	2,208
Nutrition, Foods, and Culinary Arts	1,228	1,447	1,563	157	203	271	1,071	1,244	1,292
Occupational Therapy Technology	66	68	82	65	68	82	1	0	0
Ocean Technology	6	10	6	4	3	3	2	7	3
Office Technology/Office Computer Apps.	1,548	1,463	1,474	428	431	435	1,120	1,032	1,039
Orthopedic Assistant	12	8	11	5	4	3	7	4	8
Other Agriculture and Natural Resources	11	13	20	7	8	5	4	5	15
Other Architecture and Environmental Design	2	2	3	0	0	0	2	2	3

Table 10 *(continued)*

Program Title	Total Credit Awards			AA/AS Degrees			Certificates (Credit)		
	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011
Other Business and Management	290	298	309	258	270	252	32	28	57
Other Commercial Services	0	0	0	0	0	0	0	0	0
Other Engineering and Related Ind. Tech.	111	99	79	39	52	28	72	47	51
Other Family and Consumer Sciences	1			0			1		
Other Fine and Applied Arts	6	4	8	2	2	5	4	2	3
Other Health Occupations	89	99	133	0	0	0	89	99	133
Other Information Technology	126	65	76	0	2	0	126	63	76
Other Media and Communications	4	10	13	0	0	0	4	10	13
Other Public and Protective Services	95	58	6	2	0	1	93	58	5
Paralegal	841	928	1,003	357	404	432	484	524	571
Paramedic	439	395	424	73	80	100	366	315	324
Pharmacy Technology	188	234	267	53	72	66	135	162	201
Physical Therapist Assistant	103	83	87	103	83	87	0	0	0
Physicians Assistant	69	68	73	10	4	11	59	64	62
Plant Science	36	21	51	14	16	19	22	5	32
Polysomnography	8	1	14	8	1	14	0	0	0
Printing and Lithography	47	54	49	9	9	12	38	45	37
Psychiatric Technician	562	525	472	55	110	85	507	415	387
Public Administration	34	81	89	14	12	18	20	69	71
Public Relations	3	3		1	1		2	2	
Radiation Therapy Technician	9	3	4	7	0	4	2	3	0
Radio and Television	243	281	339	106	147	153	137	134	186
Radio, Motion Picture and Television	1			0			1		
Radiologic Technology	577	555	618	390	378	444	187	177	174
Real Estate	444	391	380	180	152	129	264	239	251
Respiratory Care/Therapy	588	550	532	424	426	414	164	124	118
Special Education	35	33	39	20	20	19	15	13	20
Speech/Language Pathology & Audiology	126	191	175	82	123	135	44	68	40
Surgical Technician	49	43	62	10	11	30	39	32	32
Technical Communication	14	34	2	3	5	0	11	29	2
Technical Theater	34	41	45	8	23	16	26	18	29

Table 10 *(continued)*

Program Title	Total Credit Awards			AA/AS Degrees			Certificates (Credit)		
	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011
Travel Services and Tourism	156	160	148	45	43	29	111	117	119
Viticulture, Enology, and Wine Bus.	29	38	64	18	14	28	11	24	36
Vocational ESL	0	0	0	0	0	0	0	0	0
Water and Wastewater Technology	225	275	335	70	76	79	155	199	256
World Wide Web Admin.	42	60	65	7	10	5	35	50	60
Total	64,800	63,747	66,122	25,529	27,151	28,363	39,271	36,596	37,759

Results:

Table 10 shows the numbers of awards issued by 128 vocational programs across the three most recent academic years, organized alphabetically by program title. The columns under "Total Credit Awards" (i.e., columns 2, 3, and 4) are the sums of degrees plus certificates for the specified years. Totals for all programs are presented in the last row of the table. Degrees make up about 39 to 43 percent of the credit awards issued, with certificates making up 57 to 61 percent.

For Methodology and Data Source, see Appendix B.

Table 11: "Top 25" Vocational Programs in 2010-2011, by Volume of Total Awards

Includes Certificates Requiring Fewer Than 18 Units

	Program Title	Total Credit Awards 2010-2011	AA/AS Degrees 2010-2011	All Certificates (Credit) 2010-2011
1	Nursing	8,077	5,869	2,208
2	Child Development/Early Care and Education	6,222	1,859	4,363
3	Administration of Justice	5,412	2,431	2,981
4	Business Administration	3,500	3,010	490
5	Accounting	3,027	1,287	1,740
6	Fire Technology	2,910	1,095	1,815
7	Automotive Technology	2,689	312	2,377
8	Human Services	1,753	564	1,189
9	Business and Commerce, General	1,644	1,459	185
10	Business Management	1,596	894	702
11	Nutrition, Foods, and Culinary Arts	1,563	271	1,292
12	Emergency Medical Services	1,540	4	1,536
13	Office Technology/Office Computer Applications	1,474	435	1,039
14	Cosmetology and Barbering	1,453	113	1,340
15	Construction Crafts Technology	1,011	147	864
16	Paralegal	1,003	432	571
17	Medical Assisting	978	233	745
18	Dental Occupations	898	382	516
19	Electronics and Electric Technology	889	235	654
20	Manufacturing and Industrial Technology	869	164	705
21	Digital Media	719	261	458
22	Computer Infrastructure and Support	716	238	478
23	Environmental Control Technology	620	110	510
24	Radiologic Technology	618	444	174
25	Computer Information Systems	538	298	240

Results:

As shown in Table 11, Nursing programs issued the highest total number of awards in 2010-2011 (i.e., degrees plus certificates), primarily in the form of AA/AS degrees. Child Development/Early Care and Education programs issued the second highest total number of awards, primarily certificates, followed by Administration of Justice programs. The highest number of AA/AS degrees was issued in Nursing, followed by Business Administration.

For Methodology and Data Source, see Appendix B.

Fig. 6a: Wages for Students Attaining Award in 2003-2004

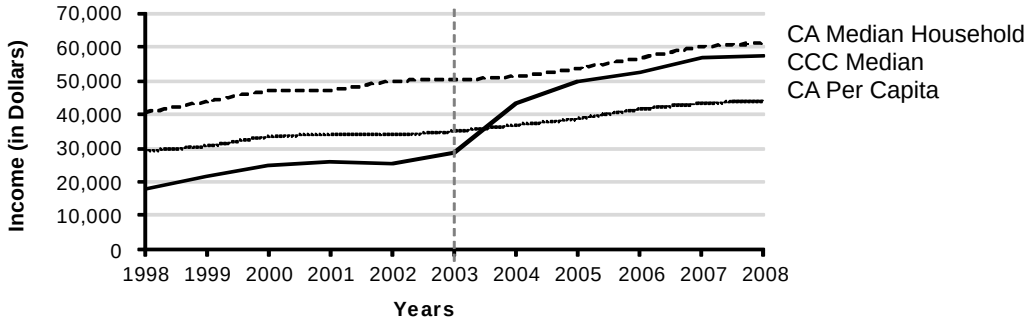


Fig. 6b: Wages for Students Attaining Award in 2004-2005

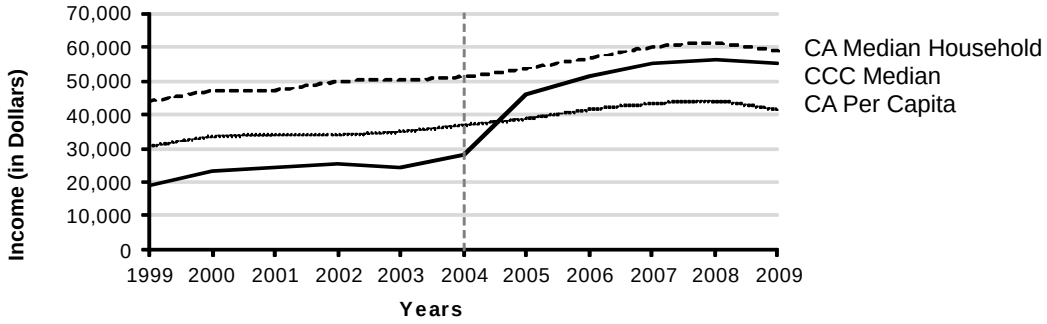
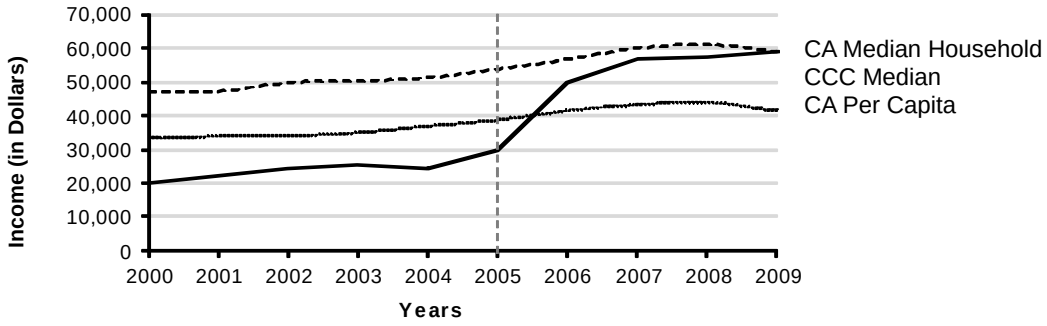


Fig. 6c: Wages for Students Attaining Award in 2005-2006



Results:

Figures 6a, 6b, and 6c represent wage trends for students attaining a vocational degree or certificate in (a) 2003-2004, (b) 2004-2005, and (c) 2005-2006. The dashed vertical line in each figure signifies the award year for each cohort. The trend lines for CCC Median Wages in Figure 6 (solid line) suggest that students receiving vocational awards from community college programs generally experience wage gains in the years following award attainment for which wage data are available. We include trend lines for California Median Household Income (dashed line) and California Per Capita Income (dotted line) to provide additional perspective.

While there are several important caveats to the CCC Median Wage trends shown in these figures, the lines indicate a noticeable “jump” in median wages that occurs following receipt of an award. This jump takes place for all three wage cohorts (2003-2004, 2004-2005, and 2005-2006). The wage trends continue at that higher level across the years for which we have post-award wage data.

For Methodology and Data Source, see Appendix B.

Table 12a: Income for Students Attaining a Degree or Certificate in 2003-2004

(N = 5,136)

(Data for Figure 6a)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
CA Median Household Income	40,600	43,800	46,900	47,177	49,738	50,220	51,185	53,629	56,645	59,948	61,021
CA Per Capita Income	29,195	30,679	33,404	33,896	34,049	34,975	36,887	38,731	41,518	43,211	43,993
CCC Median Income	17,794	21,668	24,912	25,897	25,602	28,476	43,538	49,617	52,748	56,681	57,192

Table 12b: Income for Students Attaining a Degree or Certificate in 2004-2005

(N = 5,433)

(Data for Figure 6b)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
CA Median Household Income	43,800	46,900	47,177	49,738	50,220	51,185	53,629	56,645	59,948	61,021	58,931
CA Per Capita Income	30,679	33,404	33,896	34,049	34,975	36,887	38,731	41,518	43,211	43,993	41,353
CCC Median Income	18,976	23,096	24,272	25,358	24,544	28,254	45,846	51,407	55,366	56,286	55,199

Table 12c: Income for Students Attaining a Degree or Certificate in 2005-2006

(N = 5,180)

(Data for Figure 6c)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
CA Median Household Income	46,900	47,177	49,738	50,220	51,185	53,629	56,645	59,948	61,021	58,931
CA Per Capita Income	33,404	33,896	34,049	34,975	36,887	38,731	41,518	43,211	43,993	41,353
CCC Median Income	20,164	22,299	24,322	25,148	24,371	29,750	49,898	56,566	57,580	58,777

Results:

The data in Tables 12a, 12b, and 12c above were used to develop the trend lines depicted in Figures 6a, 6b, and 6c of this report. The last data row of each table, CCC Median Wage, contains the annual median wages for a cohort of students who received any vocational award during a particular cohort year (2003-2004, 2004-2005, 2005-2006). Data on California Median Household Income and Per Capita Income are included to provide additional perspective on the income trends.

For Methodology and Data Source, see Appendix B.

Table 13: Annual Number of Credit Basic Skills Improvements

The number of students completing coursework at least one level above their prior basic skills enrollment within the three-year cohort period.

	2006-2007 to 2008-2009	2007-2008 to 2009-2010	2008-2009 to 2010-2011
Number of Students	104,343	111,858	124,522

Results:

As Table 13 indicates, the statewide annual number of students completing coursework at least one level above their prior credit basic skills enrollment coursework increased moderately from the first cohort (2006-2007 to 2008-2009) to the second cohort (2007-2008 to 2009-2010), with a considerably larger increase from the second cohort to the most recent cohort (2008-2009 to 2010-2011). Note that, as of 2010, changes in coding for Basic Skills courses (Course Prior to College Level, "CB21") in the Chancellor's Office Management Information System (MIS) and changes in the Taxonomy of Programs (TOP) codes for Basic Skills might have contributed to the marked changes in the numbers of basic skills improvements.

For Methodology and Data Source, see Appendix B.

Participation Rates

Table 14:
Systemwide Participation Rate Per 1,000 Population

	2008-2009	2009-2010	2010-2011
Systemwide Participation Rate	89.7	84.6	82.8

Table 15:
Participation Rates by Age Group Per 1,000 Population

	2008-2009	2009-2010	2010-2011
18 to 19	339.4	319.7	310.5
20 to 24	242.9	237.2	236.4
25 to 29	124.8	117.2	115.4
30 to 34	78.6	74.2	73.7
35 to 39	55.9	50.5	49.4
40 to 49	42.3	37.9	36.1
50 to 65	28.8	24.7	22.3

Table 16:
Participation Rates by Gender Per 1,000 Population

	2008-2009	2009-2010	2010-2011
Female	98.1	91.8	89.2
Male	81.5	77.5	76.6

Table 17:
Participation Rates by Ethnicity Per 1,000 Population

	2008-2009	2009-2010	2010-2011
Asian	115.9	105.1	98.9
Black/African American	128.2	117.9	114.2
Hispanic	92.8	89.2	89.6
Native American	137.6	100.7	82.7
Pacific Islander	210.6	162.1	133.4
White	76.0	69.7	66.4
Multirace	2.3	80.1	121.4

Results:

Tables 14 to 18 show how the community colleges provide access to higher education for all segments of the state's population. The participants include substantial numbers from all categories of age, gender, and race/ethnicity.

For Methodology and Data Source, See Appendix B.

Table 18: Participation Rates by Age, Gender, and Ethnicity Per 1,000 Population

Age	Gender	Ethnicity	2008-2009	2009-2010	2010-2011
18 to 19	Female	Asian	505.6	463.6	422.7
18 to 19	Female	Black/African American	417.9	350.0	314.7
18 to 19	Female	Hispanic	351.8	337.7	334.6
18 to 19	Female	Native American	507.9	341.5	214.4
18 to 19	Female	Pacific Islander	1,028.5	668.5	532.5
18 to 19	Female	White	328.5	300.0	278.8
18 to 19	Female	Multirace	10.8	333.2	496.5
18 to 19	Male	Asian	498.6	461.6	436.9
18 to 19	Male	Black/African American	383.5	319.9	293.0
18 to 19	Male	Hispanic	297.4	285.3	286.9
18 to 19	Male	Native American	431.2	276.9	183.2
18 to 19	Male	Pacific Islander	1,026.3	682.4	507.3
18 to 19	Male	White	298.9	271.6	254.8
18 to 19	Male	Multirace	8.5	287.9	448.5
20 to 24	Female	Asian	393.4	369.9	358.0
20 to 24	Female	Black/African American	315.8	291.0	279.6
20 to 24	Female	Hispanic	244.1	243.4	249.8
20 to 24	Female	Native American	350.9	266.1	222.6
20 to 24	Female	Pacific Islander	652.5	515.0	418.8
20 to 24	Female	White	238.4	225.2	215.2
20 to 24	Female	Multirace	5.2	173.2	263.4
20 to 24	Male	Asian	368.0	354.9	350.6
20 to 24	Male	Black/African American	255.1	242.1	235.4
20 to 24	Male	Hispanic	200.5	198.5	204.0
20 to 24	Male	Native American	274.3	215.9	182.6
20 to 24	Male	Pacific Islander	610.7	521.7	440.5
20 to 24	Male	White	215.8	207.0	201.4
20 to 24	Male	Multirace	5.0	144.0	224.0

Table 18 *(continued)*

Age	Gender	Ethnicity	2008-2009	2009-2010	2010-2011
25 to 29	Female	Asian	187.5	169.1	160.1
25 to 29	Female	Black/African American	191.0	177.5	172.0
25 to 29	Female	Hispanic	126.6	119.0	118.1
25 to 29	Female	Native American	215.6	156.3	130.1
25 to 29	Female	Pacific Islander	262.5	204.0	176.7
25 to 29	Female	White	131.3	118.7	113.6
25 to 29	Female	Multirace	2.3	95.2	136.8
25 to 29	Male	Asian	147.2	136.5	131.1
25 to 29	Male	Black/African American	138.0	130.6	126.3
25 to 29	Male	Hispanic	95.9	91.2	91.8
25 to 29	Male	Native American	174.7	123.9	107.3
25 to 29	Male	Pacific Islander	228.7	184.3	162.0
25 to 29	Male	White	116.9	109.2	108.0
25 to 29	Male	Multirace	2.0	79.0	116.1
30 to 34	Female	Asian	106.4	96.5	91.6
30 to 34	Female	Black/African American	143.6	131.9	128.1
30 to 34	Female	Hispanic	82.4	77.2	74.9
30 to 34	Female	Native American	153.2	115.4	100.2
30 to 34	Female	Pacific Islander	135.6	118.1	98.3
30 to 34	Female	White	79.4	74.6	74.9
30 to 34	Female	Multirace	1.4	64.1	93.3
30 to 34	Male	Asian	76.5	69.2	66.1
30 to 34	Male	Black/African American	105.5	102.5	103.4
30 to 34	Male	Hispanic	62.1	57.8	57.2
30 to 34	Male	Native American	139.2	103.6	92.1
30 to 34	Male	Pacific Islander	121.7	103.7	88.2
30 to 34	Male	White	71.9	69.0	70.9
30 to 34	Male	Multirace	0.8	50.4	77.3

Table 18 *(continued)*

Age	Gender	Ethnicity	2008-2009	2009-2010	2010-2011
35 to 39	Female	Asian	78.2	68.4	62.8
35 to 39	Female	Black/African American	108.6	99.0	100.6
35 to 39	Female	Hispanic	60.3	54.9	53.6
35 to 39	Female	Native American	115.8	81.5	72.8
35 to 39	Female	Pacific Islander	98.9	72.0	64.0
35 to 39	Female	White	54.8	48.5	47.1
35 to 39	Female	Multirace	1.1	39.5	60.0
35 to 39	Male	Asian	52.1	45.7	41.4
35 to 39	Male	Black/African American	82.7	78.6	79.6
35 to 39	Male	Hispanic	42.9	38.9	38.0
35 to 39	Male	Native American	101.7	72.5	67.9
35 to 39	Male	Pacific Islander	93.7	79.7	62.3
35 to 39	Male	White	48.8	44.0	44.1
35 to 39	Male	Multirace	0.6	28.3	45.7
40 to 49	Female	Asian	61.0	52.3	48.8
40 to 49	Female	Black/African American	82.6	76.3	75.5
40 to 49	Female	Hispanic	47.4	42.2	40.3
40 to 49	Female	Native American	83.1	65.9	54.5
40 to 49	Female	Pacific Islander	74.3	56.8	49.6
40 to 49	Female	White	45.6	39.7	36.5
40 to 49	Female	Multirace	0.7	26.0	40.5
40 to 49	Male	Asian	36.3	32.1	29.9
40 to 49	Male	Black/African American	61.5	58.5	59.2
40 to 49	Male	Hispanic	30.1	27.5	26.2
40 to 49	Male	Native American	74.7	55.8	49.6
40 to 49	Male	Pacific Islander	66.3	56.0	49.9
40 to 49	Male	White	33.9	30.7	29.4
40 to 49	Male	Multirace	0.5	16.5	26.6

Table 18 *(continued)*

Age	Gender	Ethnicity	2008-2009	2009-2010	2010-2011
50 to 65	Female	Asian	39.9	33.9	30.5
50 to 65	Female	Black/African American	46.9	42.8	41.0
50 to 65	Female	Hispanic	28.8	25.2	23.7
50 to 65	Female	Native American	53.3	38.2	29.9
50 to 65	Female	Pacific Islander	46.5	35.8	30.6
50 to 65	Female	White	35.5	29.3	25.2
50 to 65	Female	Multirace	0.6	13.1	19.0
50 to 65	Male	Asian	25.1	22.1	19.8
50 to 65	Male	Black/African American	35.7	32.6	32.9
50 to 65	Male	Hispanic	18.6	17.0	15.9
50 to 65	Male	Native American	43.2	31.0	27.9
50 to 65	Male	Pacific Islander	33.3	27.3	24.8
50 to 65	Male	White	22.2	18.7	17.0
50 to 65	Male	Multirace	0.1	8.3	12.1

Results:

For an explanation of population rates exceeding 1,000, see the Introduction to the Systemwide Indicators.

For Methodology and Data Source, See Appendix B.

ARCC 2012 Report:
An Introduction to the College Level Indicators

The Accountability Reporting for the Community Colleges (ARCC) framework specifies that community college performance data should be aggregated, analyzed, and reported at two levels: the individual college level (college level indicators) and across the community college system (systemwide indicators).

The following section of the 2012 ARCC report presents results for the performance indicators chosen for **college level** accountability reporting. Colleges and schools of continuing education are organized alphabetically (by college name). However, colleges that have "College of the…" in their titles will be found under "C."

Results for each college are presented in Tables 1.1 to 1.11. The methodology for performance indicators and college profile demographics is found in Appendix B. In the current draft, Tables 1.1 to 1.11 are organized under three main categories: College Performance Indicators, College Profiles, and College Peer Groups.

College Performance Indicators are further categorized as Degree/Certificate/Transfer, Vocational/Occupational/Workforce Development, and Pre-Collegiate Improvement (Basic Skills, ESL, and Career Development and College Preparation).

The tables present the following data for each college:

1. Student Progress and Achievement Rate
2. Percent of Students Who Earned at Least 30 Units
3. Persistence Rate
4. Annual Successful Course Completion Rate for Credit Vocational Courses
5. Annual Successful Course Completion Rate for Credit Basic Skills Courses
6. Improvement Rates for Credit ESL Courses
7. Improvement Rates for Credit Basic Skills Courses
8. Career Development and College Preparation Progress and Achievement Rate
9. College profile summaries, (e.g., headcounts, percentages of student enrollments by various demographics) obtained from the CCCCO Data Mart for the 2012 report; prior ARCC report demographics came from the Chancellor's Office MIS
10. Summary of the college's peer groups for each indicator

This college level section includes data for each of the colleges in the system at the time of this report, although data for some earlier time periods may be missing for the newer colleges. Most of the college level tables include data for the most recent academic years; however, the time periods may differ for a few of the indicators. Thus, it is important to note the years specified in the titles or column headings for the tables.

Because analysts of state level policy often need to know how the entire system has performed on specific indicators, we report the total system rates on the ARCC college level indicators in the table below.

College Level Performance Indicator	State Rate
1. Student Progress & Achievement (2005-06 to 2010-11)	53.6%
2. Completed 30 or More Units (2005-06 to 2010-11)	73.5%
3. Fall to Fall Persistence (Fall 2009 to Fall 2010)	71.3%
4. Vocational Course Completion (2010–11)	76.7%
5. Basic Skills Course Completion (2010-11)	62.0%
6. ESL Course Improvement (2008-09 to 2010-11)	54.6%
7. Basic Skills Course Improvement (2008-09 to 2010-11)	58.6%

The rates in this table use the total number of students in the state that qualified for a specific cohort as the denominator. The numerator likewise uses the total number of outcomes in the state. Analysts should avoid using the rates in this table to evaluate the performance of an individual college because these overall rates ignore the local contexts that differentiate the community colleges. Evaluation of individual college performance should focus upon the college level information that appears on the separate pages that follow. On those pages, Tables 1.1 to 1.10 for each college explicitly enable analysts to evaluate a college in an equitable manner.

A Note About the Student Progress and Achievement Rate in the 2012 Report

Student Progress and Achievement Rate (SPAR) outcomes include transfer to a baccalaureate granting institution, which is determined by a student level data match with CSU, UC and National Student Clearinghouse (NSC). The NSC match captures the in-state (ISP) and out-of-state transfers (OOS) and the match traditionally takes place in the spring and fall. The fall match was not complete at the time MIS extracted the data for the report.

A Note About The Career Development and College Preparation Progress and Achievement Rate (CDCP)

The Career Development and College Preparation Progress and Achievement Rate (Table 1.6) was added to the ARCC report in 2008 as a result of legislation (SB 361, Scott, Chapter 631, Statutes of 2006) that increased funding for specific noncredit courses (see Appendix F).

As of this report, we have partial or complete CDCP data for 41 community colleges/schools of continuing education. See Appendix B for a description of the methodology used to obtain data and calculate progress rates for the CDCP indicator and a list of the colleges with CDCP data available for this report.

Although there is no peer grouping for this indicator in the 2012 ARCC, colleges with CDCP funding should consider CDCP performance when they prepare their self-assessments for the final ARCC report.

Adding the CDCP Progress and Achievement Rate to the ARCC report also meant adding CDCP performance data and demographic data for schools of continuing education (e.g., San Francisco Continuing Education, San Diego Continuing Education, etc.). Because they do not offer programs measured by the other ARCC indicators, Tables 1.1 through 1.5 and Table 1.11 are marked with "NA" (Not Applicable) for schools of continuing education. We have included demographic data for these schools, where available, in Tables 1.7 through 1.10.

A Note About the Peer Groups in the 2012 ARCC Report

The Chancellor's Office has decided to maintain stability in the peer groups by foregoing new peer group formation for this year's ARCC report. Because 2009 was the last year in which staff performed cluster analysis on the most current data available, the peer groups have remained intact for four consecutive years. However, the Chancellor's Office will probably need to revise the peer groups in a future ARCC report in order to account for the major shifts in data that have occurred since 2009 and for the emergence of new colleges in the system. Table 1.11 in the 2012 ARCC report retains the peer groups identified for the 2009 report. **However, the data in columns 3 through 6 of Table 1.11 have been updated to reflect the most recent performance data for the members of each peer group.**

A complete explanation of this year's strategy can be found in the Introduction to Appendix A.

Blank page inserted for reproduction purposes only.

Bakersfield College

Kern Community College District

College Performance Indicators

Student Progress and Achievement: Degree/Certificate/Transfer

Table 1.1: Student Progress and Achievement Rate

Percentage of first-time students who showed intent to complete and who achieved any of the following outcomes within six years: Transferred to a four-year college; or earned an AA/AS; or earned a Certificate (18 units or more); or achieved "Transfer Directed" status; or achieved "Transfer Prepared" status. (See explanation in Appendix B.)

	2003-2004 to 2008-2009	2004-2005 to 2009-2010	2005-2006 to 2010-2011
Student Progress and Achievement Rate	48.7%	49.7%	46.1%

Table 1.1a: Percent of Students Who Earned at Least 30 Units

Percentage of first-time students who showed intent to complete and who earned at least 30 units while in the California Community College System.
(See explanation in Appendix B.)

	2003-2004 to 2008-2009	2004-2005 to 2009-2010	2005-2006 to 2010-2011
Percent of Students Who Earned at Least 30 Units	74.9%	74.8%	74.9%

Table 1.2: Persistence Rate

Percentage of first-time students with a minimum of six units earned in a Fall term and who returned and enrolled in the subsequent Fall term anywhere in the system. (See explanation in Appendix B.)

	Fall 2007 to Fall 2008	Fall 2008 to Fall 2009	Fall 2009 to Fall 2010
Persistence Rate	67.6%	67.1%	73.3%

Bakersfield College

Kern Community College District

College Performance Indicators

Student Progress and Achievement: Vocational/Occupational/Workforce Development

Table 1.3: Annual Successful Course Completion Rate for Credit Vocational Courses

See explanation in Appendix B.

	2008-2009	2009-2010	2010-2011
Annual Successful Course Completion Rate for Vocational Courses	77.1%	76.6%	75.5%

Pre-Collegiate Improvement: Basic Skills, ESL, and Enhanced Noncredit

Table 1.4: Annual Successful Course Completion Rate for Credit Basic Skills Courses

See explanation in Appendix B.

	2008-2009	2009-2010	2010-2011
Annual Successful Course Completion Rate for Basic Skills Courses	53.3%	52.4%	53.7%

Table 1.5: Improvement Rates for ESL and Credit Basic Skills Courses

See explanation in Appendix B.

	2006-2007 to 2008-2009	2007-2008 to 2009-2010	2008-2009 to 2010-2011
ESL Improvement Rate	53.4%	58.7%	52.8%
Basic Skills Improvement Rate	48.1%	49.1%	48.5%

Table 1.6: Career Development and College Preparation (CDCP) Progress and Achievement Rate

See explanation in Appendix B.

	2006-2007 to 2008-2009	2007-2008 to 2009-2010	2008-2009 to 2010-2011
CDCP Progress and Achievement Rate	.%	.%	12.5%

Bakersfield College
Kern Community College District

College Profile

Table 1.7:
Annual Unduplicated Headcount and Full-Time Equivalent Students (FTES)

	2008-2009	2009-2010	2010-2011
Annual Unduplicated Headcount	28,760	27,391	26,717
Full-Time Equivalent Students (FTES)	14,220	13,787	13,881

Source: The annual unduplicated headcount data are produced by the Chancellor's Office, Management Information System. The FTES data (Resident only) are produced from the Chancellor's Office, Fiscal Services 320 Report.

Table 1.8:
Age of Students at Enrollment

	2008-2009	2009-2010	2010-2011
19 or less	28.8%	30.0%	28.3 %
20 - 24	29.9%	30.8%	32.8 %
25 - 49	36.3%	34.9%	34.6 %
Over 49	5.1%	4.2%	4.3 %
Unknown	.%	0.0%	0.0 %

Source: Chancellor's Office, Management Information System

Table 1.9:
Gender of Students

	2008-2009	2009-2010	2010-2011
Female	55.3%	53.4%	54.1%
Male	44.5%	46.4%	45.6%
Unknown	0.3%	0.2%	0.3%

Source: Chancellor's Office, Management Information System

Bakersfield College
Kern Community College District

College Profile

Table 1.10:
Ethnicity of Students

	2008-2009	2009-2010	2010-2011
African American	7.4%	3.8%	7.6%
American Indian/Alaskan Native	1.4%	0.6%	0.9%
Asian	3.0%	1.5%	2.6%
Filipino	2.8%	1.4%	2.4%
Hispanic	44.3%	42.5%	50.9%
Pacific Islander	0.3%	0.2%	0.3%
Two or More Races	.%	0.4%	1.9%
Unknown/Non-Respondent	7.2%	34.1%	2.7%
White Non-Hispanic	33.5%	15.6%	30.6%

Source: Chancellor's Office, Management Information System

Bakersfield College
Kern Community College District

College Peer Grouping

Table 1.11: Peer Grouping

	Indicator	College's Rate	Peer Group	Peer Group Low	Peer Group High	Peer Group
A	Student Progress and Achievement Rate	46.1	49.9	38.0	60.5	*A1*
B	Percent of Students Who Earned at Least 30 Units	74.9	73.3	65.7	81.4	*B2*
C	Persistence Rate	73.3	71.0	57.3	80.8	*C3*
D	Annual Successful Course Completion Rate for Credit Vocational Courses	75.5	74.8	72.5	77.5	*D3*
E	Annual Successful Course Completion Rate for Credit Basic Skills Courses	53.7	60.7	50.8	73.1	*E2*
F	Improvement Rate for Credit Basic Skills Courses	48.5	58.4	38.8	76.9	*F2*
G	Improvement Rate for Credit ESL Courses	52.8	57.9	40.8	69.2	*G5*

Note: Please refer to Appendices A and B for more information on these rates. The technical details of the peer grouping process are available in Appendix D.

ARCC 2012 Report: College Level Indicators

Bakersfield College

Kern Community College District

College Self-Assessment

Bakersfield College, founded in 1913, is among the oldest California community colleges. Within a 5,000 square mile geographic area, its service areas include the main campus, a campus in rural Delano 35 miles north, and several outreach locations. It is a comprehensive college offering transfer, basic skills, and career/technical education courses. In 2010-2011, the College served nearly 27,000 ethnically diverse students. Over 50 percent of these students are Hispanic, with increasing numbers of Hispanic students under age 24. In fall 2011, the College received a five-year Hispanic-Serving Institution (HSI) Science, Technology, Engineering, and Mathematics (STEM) grant.

Performance is average or slightly above average on most ARCC indicators. However, the performance trend for the Student Progress and Achievement Rate (SPAR) was relatively stable but decreased over three percent for the current report. This may reflect a slight age shift toward younger students, and increase in students taking basic skills classes since placement of incoming high school graduates into precollegiate mathematics and English courses increased for the most recent five years through 2010-2011. During 2011, the district institutional research team used SPAR data to examine factors that lead to SPAR success. Results from this study received acceptance for presentation at the 2012 CCC Research and Planning Group conference.

In contrast to the SPAR, the Persistence Rate increased five percent while the Percent of Students Who Earned at Least 30 Units increased three percent for the past five reporting periods.

Performance on the Annual Successful Course Completion Rate for Credit Vocational Courses remained slightly above average. The College attributes this to outstanding vocational programs in nursing, child development, fire technology, culinary arts, and industrial technology with active advisory committees and strong community partnerships.

Performance on the Pre-Collegiate Improvement rates for Basic Skills and English as a Second Language (ESL) courses was below average. The College continues its participation in the statewide CB21 (Course-Prior-To-College-Level) coding initiative to code more accurately Basic Skills and ESL courses. Fluctuation in the ESL improvement rates may be due in part to discontinuing the ESL placement essay in 2008-2009; ESL faculty members indicate the placement methodology needs review. In addition, more students are increasingly under-prepared for college level work and take longer to move through the ESL and Basic Skills sequences.

The Career Development and College Preparation Progress and Achievement Rate became available for the first time, and it reflects a three-year average for the ESL Certificate of Completion-Intermediate. The College is assessing the viability of the certificate this year.

Bakersfield College is committed to using self-evaluation and performance indicators for continuous improvement. As part of the self-evaluation process for reaffirmation of accreditation, the College is examining five-year trends of student educational need and achievement progress disaggregated by sociodemographic and educational characteristics. In addition, the College is reviewing performance on ARCC indicators for Hispanic-Serving Institutions of similar size. Dialogue about performance expectations has begun in College Council and Academic Senate, and the new strategic plan performance measurements will incorporate ARCC indicators.

Cerro Coso Community College

Kern Community College District

College Performance Indicators

Student Progress and Achievement: Degree/Certificate/Transfer

Table 1.1: Student Progress and Achievement Rate

Percentage of first-time students who showed intent to complete and who achieved any of the following outcomes within six years: Transferred to a four-year college; or earned an AA/AS; or earned a Certificate (18 units or more); or achieved "Transfer Directed" status; or achieved "Transfer Prepared" status. (See explanation in Appendix B.)

	2003-2004 to 2008-2009	2004-2005 to 2009-2010	2005-2006 to 2010-2011
Student Progress and Achievement Rate	50.5%	52.9%	50.5%

Table 1.1a: Percent of Students Who Earned at Least 30 Units

Percentage of first-time students who showed intent to complete and who earned at least 30 units while in the California Community College System.
(See explanation in Appendix B.)

	2003-2004 to 2008-2009	2004-2005 to 2009-2010	2005-2006 to 2010-2011
Percent of Students Who Earned at Least 30 Units	64.0%	67.7%	68.9%

Table 1.2: Persistence Rate

Percentage of first-time students with a minimum of six units earned in a Fall term and who returned and enrolled in the subsequent Fall term anywhere in the system. (See explanation in Appendix B.)

	Fall 2007 to Fall 2008	Fall 2008 to Fall 2009	Fall 2009 to Fall 2010
Persistence Rate	53.7%	60.0%	53.1%

Cerro Coso Community College

Kern Community College District

College Performance Indicators

Student Progress and Achievement: Vocational/Occupational/Workforce Development

Table 1.3: Annual Successful Course Completion Rate for Credit Vocational Courses

See explanation in Appendix B.

	2008-2009	2009-2010	2010-2011
Annual Successful Course Completion Rate for Vocational Courses	65.8%	68.8%	67.0%

Pre-Collegiate Improvement: Basic Skills, ESL, and Enhanced Noncredit

Table 1.4: Annual Successful Course Completion Rate for Credit Basic Skills Courses

See explanation in Appendix B.

	2008-2009	2009-2010	2010-2011
Annual Successful Course Completion Rate for Basic Skills Courses	55.1%	50.8%	53.6%

Table 1.5: Improvement Rates for ESL and Credit Basic Skills Courses

See explanation in Appendix B.

	2006-2007 to 2008-2009	2007-2008 to 2009-2010	2008-2009 to 2010-2011
ESL Improvement Rate	0.0%	22.2%	31.6%
Basic Skills Improvement Rate	53.0%	52.9%	53.1%

Table 1.6: Career Development and College Preparation (CDCP) Progress and Achievement Rate

See explanation in Appendix B.

	2006-2007 to 2008-2009	2007-2008 to 2009-2010	2008-2009 to 2010-2011
CDCP Progress and Achievement Rate	.%	.%	.%

Cerro Coso Community College

Kern Community College District

College Profile

Table 1.7:
Annual Unduplicated Headcount and Full-Time Equivalent Students (FTES)

	2008-2009	2009-2010	2010-2011
Annual Unduplicated Headcount	8,568	9,424	9,301
Full-Time Equivalent Students (FTES)	3,140	3,592	3,464

Source: The annual unduplicated headcount data are produced by the Chancellor's Office, Management Information System. The FTES data (Resident only) are produced from the Chancellor's Office, Fiscal Services 320 Report.

Table 1.8:
Age of Students at Enrollment

	2008-2009	2009-2010	2010-2011
19 or less	19.9%	18.5%	18.6 %
20 - 24	19.5%	20.3%	23.7 %
25 - 49	43.4%	47.2%	47.6 %
Over 49	17.3%	14.0%	10.2 %
Unknown	.%	.%	. %

Source: Chancellor's Office, Management Information System

Table 1.9:
Gender of Students

	2008-2009	2009-2010	2010-2011
Female	61.1%	58.6%	60.1%
Male	38.6%	41.2%	39.6%
Unknown	0.3%	0.2%	0.3%

Source: Chancellor's Office, Management Information System

Cerro Coso Community College

Kern Community College District

College Profile

Table 1.10:
Ethnicity of Students

	2008-2009	2009-2010	2010-2011
African American	4.3%	2.9%	4.7%
American Indian/Alaskan Native	3.1%	1.6%	2.4%
Asian	3.2%	1.5%	2.4%
Filipino	1.7%	1.0%	1.7%
Hispanic	13.2%	18.4%	21.4%
Pacific Islander	0.5%	0.3%	0.3%
Two or More Races	.%	0.9%	2.9%
Unknown/Non-Respondent	7.7%	39.6%	4.3%
White Non-Hispanic	66.5%	33.7%	59.9%

Source: Chancellor's Office, Management Information System

Cerro Coso Community College

Kern Community College District

College Peer Grouping

Table 1.11: Peer Grouping

	Indicator	College's Rate	Peer Group	Peer Group Low	Peer Group High	Peer Group
A	Student Progress and Achievement Rate	50.5	48.3	34.9	65.6	*A5*
B	Percent of Students Who Earned at Least 30 Units	68.9	69.7	57.8	80.0	*B1*
C	Persistence Rate	53.1	57.8	46.3	74.5	*C4*
D	Annual Successful Course Completion Rate for Credit Vocational Courses	67.0	73.3	64.0	88.3	*D1*
E	Annual Successful Course Completion Rate for Credit Basic Skills Courses	53.6	58.5	40.8	70.2	*E4*
F	Improvement Rate for Credit Basic Skills Courses	53.1	58.1	41.6	72.1	*F5*
G	Improvement Rate for Credit ESL Courses	31.6	45.6	.0	78.6	*G1*

Note: Please refer to Appendices A and B for more information on these rates. The technical details of the peer grouping process are available in Appendix D.

Cerro Coso Community College

Kern Community College District

College Self-Assessment

Established in 1973, Cerro Coso Community College is one of three colleges within the Kern Community College District. Cerro Coso serves a rural population scattered over 18,000 square miles, the largest community college service area in California. To serve its far reaching communities, Cerro Coso has been offering online classes since 1997 and offers 16 Associate degrees entirely online and as many as 160+ classes online each year.

In 2011, the college conducted a research project to examine factors contributing to our recent middle-of-the-pack outcomes in the SPAR. Better orientation and more expanded offerings of student success courses were determined to be the best intervention on the short-term the college could use to increase these numbers. On the longer term, additional changes include giving priority registration to those completing all matriculation components, more tightly integrating programs of study, and structuring academic pathways to facilitate completion.

These changes are expected to positively affect the 30 Unit and Persistence metrics. Some of the trends in these metrics date back to expansion of the online program, which caused the college to now serve more part-time students than full-time (81%-17%), and more students enrolled in fewer than six units than more (51%-49%). Other demographic factors—such as the large proportion of older students in the small rural communities Cerro Coso serves—means that fewer students are included in the ARCC cohort who complete all matriculation components and pursue a program through to completion. A recent external scan showed the college has a large number of local students 25-40 years old without a college or high school diploma. The college has plans to 1) better determine the educational needs of this population, 2) schedule courses at our local centers to serve those needs more effectively, 3) and reduce the number of full online offerings, creating more hybrid courses with an onsite component.

The study also revealed that Cerro Coso has proportionately fewer students included in the SPAR and 30 Unit cohort than other schools. In prior years, the college enrolled a large number of concurrent high school students. This decline in these enrollments in recent years corresponds with the decline in SPAR and Persistence rates since such students tend to be better completers down the line.

Basic Skills has concentrated efforts in the past two years on improving the instruction of learning/study and self-efficacy skills directly in the classroom resulting in a positive trend in both ARCC Basic Skills measures.

Vocational Education Completion rates continue to lag behind our cohort and are being addressed. A grant-funded initiative underway to more successfully integrate Basic Skills into the CTE curriculum—especially within the first semester—will positively impact future results.

The Improvement Rate for Credit ESL courses is unacceptably low. We run only six ESL classes a year taught by a single adjunct instructor. Though the score is higher than last year and trending in the right direction, special care will be taken to provide additional training and support for this individual.

Porterville College

Kern Community College District

College Performance Indicators

Student Progress and Achievement: Degree/Certificate/Transfer

Table 1.1: Student Progress and Achievement Rate

Percentage of first-time students who showed intent to complete and who achieved any of the following outcomes within six years: Transferred to a four-year college; or earned an AA/AS; or earned a Certificate (18 units or more); or achieved "Transfer Directed" status; or achieved "Transfer Prepared" status. (See explanation in Appendix B.)

	2003-2004 to 2008-2009	2004-2005 to 2009-2010	2005-2006 to 2010-2011
Student Progress and Achievement Rate	49.0%	51.2%	51.3%

Table 1.1a: Percent of Students Who Earned at Least 30 Units

Percentage of first-time students who showed intent to complete and who earned at least 30 units while in the California Community College System.
(See explanation in Appendix B.)

	2003-2004 to 2008-2009	2004-2005 to 2009-2010	2005-2006 to 2010-2011
Percent of Students Who Earned at Least 30 Units	78.0%	76.3%	78.8%

Table 1.2: Persistence Rate

Percentage of first-time students with a minimum of six units earned in a Fall term and who returned and enrolled in the subsequent Fall term anywhere in the system. (See explanation in Appendix B.)

	Fall 2007 to Fall 2008	Fall 2008 to Fall 2009	Fall 2009 to Fall 2010
Persistence Rate	63.2%	66.9%	70.3%

Porterville College

Kern Community College District

College Performance Indicators

Student Progress and Achievement: Vocational/Occupational/Workforce Development

Table 1.3: Annual Successful Course Completion Rate for Credit Vocational Courses

See explanation in Appendix B.

	2008-2009	2009-2010	2010-2011
Annual Successful Course Completion Rate for Vocational Courses	75.9%	74.5%	75.1%

Pre-Collegiate Improvement: Basic Skills, ESL, and Enhanced Noncredit

Table 1.4: Annual Successful Course Completion Rate for Credit Basic Skills Courses

See explanation in Appendix B.

	2008-2009	2009-2010	2010-2011
Annual Successful Course Completion Rate for Basic Skills Courses	56.3%	57.4%	58.6%

Table 1.5: Improvement Rates for ESL and Credit Basic Skills Courses

See explanation in Appendix B.

	2006-2007 to 2008-2009	2007-2008 to 2009-2010	2008-2009 to 2010-2011
ESL Improvement Rate	50.0%	53.8%	27.3%
Basic Skills Improvement Rate	53.1%	53.0%	54.4%

Table 1.6: Career Development and College Preparation (CDCP) Progress and Achievement Rate

See explanation in Appendix B.

	2006-2007 to 2008-2009	2007-2008 to 2009-2010	2008-2009 to 2010-2011
CDCP Progress and Achievement Rate	.%	.%	.%

Porterville College

Kern Community College District

College Profile

Table 1.7:
Annual Unduplicated Headcount and Full-Time Equivalent Students (FTES)

	2008-2009	2009-2010	2010-2011
Annual Unduplicated Headcount	6,248	6,237	5,635
Full-Time Equivalent Students (FTES)	3,150	3,470	3,288

Source: The annual unduplicated headcount data are produced by the Chancellor's Office, Management Information System. The FTES data (Resident only) are produced from the Chancellor's Office, Fiscal Services 320 Report.

Table 1.8:
Age of Students at Enrollment

	2008-2009	2009-2010	2010-2011
19 or less	26.3%	27.6%	29.3 %
20 - 24	26.9%	29.7%	32.5 %
25 - 49	37.1%	35.0%	34.4 %
Over 49	9.7%	7.7%	3.8 %
Unknown	.%	.%	. %

Source: Chancellor's Office, Management Information System

Table 1.9:
Gender of Students

	2008-2009	2009-2010	2010-2011
Female	64.1%	62.6%	62.1%
Male	35.4%	37.0%	37.7%
Unknown	0.5%	0.4%	0.2%

Source: Chancellor's Office, Management Information System

Porterville College
Kern Community College District

College Profile

Table 1.10:
Ethnicity of Students

	2008-2009	2009-2010	2010-2011
African American	1.9%	1.3%	1.6%
American Indian/Alaskan Native	2.0%	1.0%	1.1%
Asian	2.4%	1.6%	2.5%
Filipino	4.0%	1.9%	3.1%
Hispanic	51.5%	52.2%	61.6%
Pacific Islander	0.3%	0.1%	0.3%
Two or More Races	.%	0.4%	1.7%
Unknown/Non-Respondent	7.3%	25.1%	1.4%
White Non-Hispanic	30.6%	16.4%	26.9%

Source: Chancellor's Office, Management Information System

Porterville College
Kern Community College District

College Peer Grouping

Table 1.11: Peer Grouping

	Indicator	College's Rate	Peer Group	Peer Group Low	Peer Group High	Peer Group
A	Student Progress and Achievement Rate	51.3	49.9	38.0	60.5	*A1*
B	Percent of Students Who Earned at Least 30 Units	78.8	70.9	57.0	78.8	*B3*
C	Persistence Rate	70.3	61.2	35.8	72.0	*C1*
D	Annual Successful Course Completion Rate for Credit Vocational Courses	75.1	74.8	72.5	77.5	*D3*
E	Annual Successful Course Completion Rate for Credit Basic Skills Courses	58.6	60.7	50.8	73.1	*E2*
F	Improvement Rate for Credit Basic Skills Courses	54.4	52.8	25.0	64.2	*F4*
G	Improvement Rate for Credit ESL Courses	27.3	51.4	24.1	70.2	*G3*

Note: Please refer to Appendices A and B for more information on these rates. The technical details of the peer grouping process are available in Appendix D.

ARCC 2012 Report: College Level Indicators

Porterville College

Kern Community College District

College Self-Assessment

The city of Porterville and surrounding communities represent a growing population of greater than 100,000 people. Porterville College has been serving the diverse region of Porterville and southeastern Tulare County since 1927. The College serves approximately 4,000 students each term and offers an array of educational opportunities, including associate degrees, transfer preparation, vocational and basic skills education as well as community service and economic development. Hispanic students comprise more than 60 percent of the student body, and the trend is toward increasing numbers of Hispanic students and a younger student body. Further, the college serves an economically depressed area with 16.2% unemployment, and more than three quarters of our students receive financial aid. Additionally, our students are increasingly under-prepared for college-level work.

Porterville College demonstrates average or good performance on most accountability measures. The Student Progress and Achievement Rate (SPAR) has improved for the past two years and is above the average for our peer group. The SPAR is a key indicator for PC, and our district research team recently conducted a study to examine factors that contribute to it. The results of this study are being used in college planning efforts and the research team is hoping to present them at the upcoming Research and Planning Group conference in April 2012.

The percentage of students who earn at least 30 units from the 2005-06 cohort increased after a decline the previous year, and remains the highest among our peer group.

The fall persistence rate showed improvement for the fourth consecutive year and is near the top for our peer group. Our vocational successful course completion rate remained stable and is slightly above the peer group average.

The basic skills improvement rate has improved for each of the past two years, but remains slightly below the peer group average. The college has implemented several basic skills initiatives including increased tutoring and peer mentoring through our Learning Center. We have also implemented a small number of learning communities—two or more linked classes, usually in different subject areas--that work together to enhance the overall learning experience.

The ESL improvement rate is of limited utility for PC. Because we have only one course that meets the ARCC definition for inclusion, all three cohorts combined comprise only 48 students. We have made curriculum changes in ESL which began in spring 2010. These will be partially reflected in our 2013 ARCC report and fully depicted in 2014.

The reader may note a large percentage of students with an “unknown” ethnicity in 2009-10 and a later increase in the percentage of Hispanic students in 2010-11. The large number of students with unknown ethnicities was due to technical problems with the implementation of the new ethnicity categories. Those categories are now properly implemented and we believe the 2010-11 data accurately reflect our college’s ethnic makeup.

Despite our average to good performance on most ARCC measures, PC plans to continue to improve results by continually reviewing our curricula and looking for ways to improve student learning.

Blank page inserted for reproduction purposes only.

Appendices

Appendix A: Peer Groups

Appendix B: Methodology for Deriving Counts and Rates for College Level Performance Indicators

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Appendix D: Peer Grouping Methodology

Appendix E: Terms and Abbreviations

Appendix F: Legislation Summary

Appendix G: Record of Interactions by Boards of Trustees

Appendix H: Acknowledgements

Blank page inserted for reproduction purposes only.

Appendix A: Peer Groups

Introduction

The 2012 ARCC report uses the same peer groups that appeared in the previous three ARCC reports (2009, 2010 and 2011). That is, unlike the initial ARCC reports (2007, 2008), the 2012 report has omitted the *cluster analysis* step that used the most recent data available to identify peer institutions by each performance indicator. The Chancellor's Office has decided to maintain stability in the peer groups by foregoing new peer group formation for this year's ARCC report. For example, in Appendix A, the colleges in peer group A1 for the 2012 ARCC Report will be exactly the same colleges than the previous three ARCC reports.

There are several reasons why the Chancellor's Office has retained the peer groupings for the 2012 report. An analysis by the Chancellor's Office indicates that the data related to each performance indicator reflect considerable changes, presumably from re-submission and recoding of data by colleges to remedy past shortcomings. When substantial changes in data arose, the peer grouping analysis of prior ARCC reports would use statistical analyses to adjust the peer groups to match the new data. The instability of these peer groups for some institutions has meant that some colleges have faced a "moving target" in terms of performance evaluation. Some colleges that experienced year-to-year shifts in their peer groups noted that the shifts complicated their local analyses and planning processes. The change in peer institutions could produce an above-average performance one year but a below-average performance the next year even though the performance of the college on a specific indicator had not changed that much over the two years. In order to minimize this problem of the "moving target" with unstable peer groups, the Chancellor's Office has stabilized the peer groups by retaining the peer groupings from the 2009 report for the 2012 report.

The Chancellor's Office will still need to update the peer groupings in the 2013 report despite the importance of providing stability in the peer groupings. Such updating will probably occur to capture two events that we expect to substantially influence the statistical models behind the peer groupings. The first event is the completion of the statewide effort by the State Academic Senate to standardize the coding of the course-type variable known as "course prior to college level" (data element CB21). This standardization process is expected to alter the data for some performance indicators, and this in turn could result in a new set of environmental factors that ARCC will use to form peer groups for some performance indicators. We note that the effort to upgrade the CB21 element included changes in TOP codes (taxonomy of programs), and these additional changes in the data can also trigger shifts for peer groups and for specific college performance in the affected time period. A second event that will justify peer group updating will be the release of ZIP Code level data from the U.S. Census. Because ARCC peer grouping models use ZIP Code level U.S. Census data for a number of important environmental factors, the Chancellor's Office will take advantage of the new Census data to update its environmental factors.

Appendix A: Peer Groups

Because the Chancellor's Office values equity in between-college comparisons, the Chancellor's Office will continue to work on this important element of the ARCC report. We will continue to test for improvements in peer grouping methodology and to use the most appropriate data that are available.

The following paragraphs of this appendix describe the composition of the peer groups that the main report cites in the college level analysis (Table 1.11: Peer Grouping). There is one table for each of the seven performance indicators (excluding the CDCP indicator). For information about the peer grouping methodology, we refer readers to Appendix D, which gives the essential statistical specifications for the ARCC peer grouping. For information about the analysis that preceded and supported the peer grouping process, we refer readers to Appendix C, which documents the regression analyses that the Chancellor's Office research staff used for the 2009 ARCC report.

Appendix A should help readers by presenting them with four types of information. The first type of information is the average value for each of the uncontrollable factors (labeled as "Means of Predictors") that theoretically influence a given performance indicator in the ARCC. We show these averages for each peer group in the second, third, and fourth columns (reading from the left) of each of the seven tables in this appendix. These data have not changed from since the 2009 ARCC report.

The second type of information is the basic statistical summary of the performance indicator (the lowest rate, the highest rate, and the average rate) within each peer group. These figures appear in the three columns to the right of the shaded vertical border in each table. In the 2012 report, we have updated these figures to reflect the latest ARCC performance data for each peer group.

The third type of information concerns the composition of each peer group. The two rightmost columns of each table display the number of colleges within each peer group as well as the names of the colleges within each peer group. These data remain the same as in the 2009 ARCC report.

Finally, the fourth type of data is the state level figure for each of the uncontrollable factors and performance indicators. These state level figures appear in the last row of each of the tables in this appendix. Each statewide average in the last row is calculated as the sum of individual college values for that predictor or for that performance indicator (as specified by the column heading) divided by the number of colleges for which data were available for that predictor or performance indicator. For example, looking at Table A4, the statewide average for the predictor "Pct Male Fall 2007" is the sum of the percentage of males at each college in Fall 2007 divided by 110, where 110 represents the number of colleges for which those data were available. Similarly, the statewide average for Vocational Course Completion Rate in Table A4 is the sum of the Vocational Course Completion Rate for each college divided by the 110 colleges for which this rate was available. For the 2012 report, only the statewide average for the performance indicator

Appendix A: Peer Groups

(e.g., Vocational Course Completion Rate in Table A4) has changed. Statewide averages for the predictors have not changed from 2009.

We follow the approach described above primarily to facilitate any local efforts to compare peer group performances from previous ARCC reports to those in the 2012 edition.

The statewide averages reported in Appendix A differ from the system averages that we present in the Introduction to the College Level Indicators because the averages in the Introduction use student-level data rather than college-level data. For reporting how the system has performed on an indicator, analysts should use the system averages that appear in the Introduction to the College Level Indicators. For comparing how a peer group has done with respect to all of the colleges in the state, analysts should use the statewide averages that appear in Appendix A.

Users of this report may use these four types of information to help them establish a context for interpreting the peer group results in the main body of the report. The information about the uncontrollable factors, the performance indicators, and the peer group composition allows the user to weigh these different aspects of the peer grouping as they try to evaluate college performances.

Finally, we note some specific details for clarity's sake. The leftmost column of each table displays codes such as "A1" or "E5." These codes signify only a different peer group for each performance indicator. The letter in the code (A through G) denotes the specific performance indicator, and the number in the code (1 through 6) denotes a specific group of colleges for a specific performance indicator. Users should avoid attaching any further meaning to these codes. That is, the colleges in group "A1" are not higher or better than the colleges in group "A2" (and vice versa). For the 2012 report, the codes are comparable to those in previous ARCC reports because we have not conducted any new peer grouping. However, this is not necessarily the case for other previous reports. For example, group "B4" in this report differs from group "B4" in the 2008 ARCC report. We used this coding convention to facilitate the cross-referencing of results in the main report's college pages to this appendix and nothing more.

Users should also remember that the composition of each peer group resulted only from our statistical analysis of the available uncontrollable factors related to each outcome. Therefore, the peer groupings may list some colleges as peers when we customarily would consider them as quite dissimilar. For example, we often consider geographic location and level of population density as factors that distinguish colleges as different (or similar). So, in Table A1 users may note that our peer grouping for Student Progress and Achievement classifies Shasta as a peer for San Jose City, and this tends to clash with our knowledge of the high density setting of the Bay Area and the rural northern California setting of Shasta. However, population density and geographic location within the state are not predictors of this outcome in our statistical analyses (see Appendix C).

Furthermore, our historical perception of similar colleges tends to rely upon many controllable factors (which we do not consider in our peer grouping procedure), and this perception can also make the reported peer groups seem counter-intuitive.

For some performance indicators, a few colleges will lack a peer group. This is indicated by missing values in Table 1.11. Also, for some colleges, there may be a peer group but no figure for a particular indicator. Both situations occurred in the ARCC peer grouping analysis as a result of insufficient data at the time of analysis. Naturally, some of these situations relate to newly established colleges that lack the operating history to produce sufficient data for the ARCC analyses.

Appendix A: Peer Groups

Table A1: Student Progress & Achievement: Degree/Certificate/Transfer

Student Progress and Achievement Rate Peer Group

	Means of Predictors				Student Progress and Achievement Rate*			Peer Group Colleges	
Peer Group Number	Pct Students Age 25+ Fall 2005	Pct Basic Skills Fall 2005	Bachelor Plus Index		Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
A1	42%	15%	0.19		38.0	60.5	49.9	35	Antelope Valley; Bakersfield; Butte; Cerritos; Chaffey; Citrus; Contra Costa; Cosumnes River; Cuyamaca; Cypress; East L. A.; El Camino; Evergreen Valley; Fresno City; L.A. Harbor; L.A. Mission; L.A. Valley; Long Beach City; Los Medanos; Modesto; Mt. San Antonio; Mt. San Jacinto; Oxnard; Porterville; Reedley; Riverside; San Joaquin Delta; San Jose City; Santiago Canyon; Sequoias, Shasta; Solano; Victor Valley; West Hills Coalinga; Yuba.
A2	36%	10%	0.30		49.8	68.8	61.0	19	Crafton Hills; Cuesta; De Anza; Diablo Valley; Fullerton; Golden West; Grossmont; L.A. Pierce; Las Positas; Moorpark; Orange Coast; Pasadena City; Sacramento City; San Diego Mesa; Santa Barbara City; Santa Monica City; Sierra; Skyline; Ventura.
A3	44%	31%	0.18		38.6	53.7	49.2	7	Chabot; Copper Mountain; Desert; Gavilan; Imperial Valley; Redwoods; Southwestern.
A4	53%	11%	0.34		40.5	68.3	56.9	23	Alameda; American River; Berkeley City College; Cabrillo; Canyons; Foothill; Glendale; Irvine Valley; Laney; Marin; Merritt; MiraCosta; Monterey; Ohlone; Palomar; Saddleback; San Diego City; San Diego Miramar; San Francisco City; San Mateo; Santa Rosa; West L.A.; West Valley.
A5	62%	9%	0.18		34.9	65.6	48.3	15	Allan Hancock; Barstow; Cerro Coso; Coastline; Columbia; Feather River; Hartnell; Lake Tahoe; Lassen; Mendocino; Napa Valley; Palo Verde; Santa Bernardino; Siskiyous; Taft.
A6	57%	23%	0.20		25.0	54.8	43.4	9	Canada; Compton; L.A. City; L.A. Trade-Tech; Merced; Mission; Rio Hondo; Santa Ana; Southwest L.A.
Statewide Average	**47%**	**14%**	**0.24**				**52.5**	**N = 108**	

*** Student Progress and Achievement Rates reported for 2005-06 to 2010-11**

Appendix A: Peer Groups
Table A2: Student Progress & Achievement: Degree/Certificate/Transfer
Students Who Earned at Least 30 Units Rate Peer Group

	Means of Predictors				Students Who Earned at Least 30 Units Rate*			Peer Group Colleges
Peer Group Number	Student Count Fall 2005	Average Unit Load Fall 2004	ESAI Per Capita Income	Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
B1	8,212	7.2	$22,057	57.8	80.0	69.7	32	Alameda; Allan Hancock; Barstow; Berkeley City College; Cerro Coso; Columbia; Contra Costa; Cuyamaca; Evergreen Valley; Gavilan; Hartnell; Irvine Valley; L.A. Mission; Laney; Las Positas; Lassen; Los Medanos; Mendocino; Merritt; Mission; Monterey; Napa Valley; Ohlone; Oxnard; San Diego City; San Diego Miramar; San Jose City; Santiago Canyon; Siskiyous; Skyline; Southwest L.A.; West L.A
B2	15,849	8.4	$19,869	65.7	81.4	73.3	38	Antelope Valley; Bakersfield; Cabrillo; Canyons; Cerritos; Chabot; Chaffey; Citrus; Cosumnes River; Cuesta; Cypress; Desert; East L.A.; Fresno City; Fullerton; Glendale; Golden West; Grossmont; L.A. City; L.A. Harbor; L.A. Pierce; L.A. Trade-Tech; L.A. Valley; Merced; Mira Costa; Modesto; Mt. San Jacinto; Reedley; Rio Hondo; San Bernardino; San Diego Mesa; San Joaquin Delta; Santa Barbara City; Sierra; Solano; Southwestern; Ventura; Victor Valley
B3	6,763	9.2	$15,728	57.0	78.8	70.9	12	Butte; Compton; Copper Mountain; Crafton Hills; Feather River; Imperial Valley; Porterville; Redwoods; Sequoias; Shasta; West Hills Coalinga; Yuba
B4	26,521	8.1	$24,895	70.8	85.9	76.0	17	American River; De Anza; Diablo Valley; El Camino; Long Beach City; Moorpark; Mt. San Antonio; Orange Coast; Palomar; Pasadena City; Riverside; Sacramento City; Saddleback; San Francisco City; Santa Ana; Santa Monica City; Santa Rosa
B5	6,609	4.7	$20,031	65.6	74.7	70.1	4	Coastline; Lake Tahoe; Palo Verde; Taft
B6	10,758	7.2	$37,321	73.3	81.7	76.2	5	Canada; Foothill; Marin; San Mateo; West Valley.
Statewide Average	**13,613**	**7.9**	**$21,662**			**71.3**	**N = 108**	

*** Students Who Earned at Least 30 Units Rates reported for 2005-06 to 2010-11**

Appendix A: Peer Groups
Table A3: Student Progress & Achievement: Degree/Certificate/Transfer Persistence Rate Peer Group

	Means of Predictors				Persistence Rate*			Peer Group Colleges	
Peer Group Number	Pct Students Age 25+ Fall 2006	Student Count Fall 2006	ESAI Household Income	Low est Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
C1	54%	7,534	$37,027	35.8	72.0	61.2	22	Alameda; Allan Hancock; Barstow; Columbia; Compton; Contra Costa; Copper Mountain; Cuyamaca; Feather River; Hartnell; L.A. City; L.A. Trade-Tech; Laney; Lassen; Mendocino; Merced; Porterville; Redwoods; San Bernardino; Siskiyous; Southwest L.A.; West L.A.
C2	48%	31,304	$49,184	69.3	82.1	74.7	9	American River; Mt. San Antonio; Palomar; Pasadena City; Riverside; San Francisco City; Santa Ana; Santa Monica City; Santa Rosa
C3	40%	20,026	$44,891	57.3	80.1	71.0	24	Antelope Valley; Bakersfield; Cerritos; Chaffey; East L.A.; El Camino; Fresno City; Fullerton; Glendale; Grossmont; L.A. Pierce; L.A. Valley; Long Beach City; Modesto; Mt. San Jacinto; Orange Coast; Rio Hondo; Sacramento City; San Diego City; San Diego Mesa; San Joaquin Delta; Santa Barbara City; Sierra; Southwestern
C4	69%	7,589	$44,878	46.3	74.5	57.8	9	Berkeley City College; Cerro Coso; Coastline; Lake Tahoe; Merritt; Monterey; Napa Valley; Palo Verde; Taft
C5	41%	10,547	$45,974	60.4	79.7	69.2	27	Butte; Cabrillo; Chabot; Citrus; Cosumnes River; Crafton Hills; Cuesta; Cypress; Desert; Golden West; Imperial Valley; L.A. Harbor; L.A. Mission; Los Medanos; Mira Costa; Oxnard; Reedley; San Diego Miramar; Santiago Canyon; Sequoias; Shasta; Skyline; Solano; Ventura; Victor Valley; West Hills Coalinga; Yuba
C6	48%	13,196	$69,469	62.7	83.4	74.2	17	Canada; Canyons; De Anza; Diablo Valley; Evergreen Valley; Foothill; Gavilan; Irvine Valley; Las Positas; Marin; Mission; Moorpark; Ohlone; Saddleback; San Jose City, San Mateo, West Valley
Statewide Average	**47%**	**13,788**	**$ 47,786**			**68.3**	**N = 108**	

*** Persistence Rates reported for Fall 2009 to Fall 2010**

Appendix A: Peer Groups

Table A4: Student Progress & Achievement: Vocational/Occupational/Workforce Development Vocational Course Completion Rate Peer Group

	Means of Predictors				Vocational Course Completion Rate*			Peer Group Colleges	
Peer Group Number	Pct Male Fall 2007	Pct Students Age 30+ Fall 2007	Miles to Nearest UC		Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
D1	40%	46%	43.2		64.0	88.3	73.3	27	Allan Hancock, Barstow, Berkeley City College, Canada, Cerro Coso, Coastline, Columbia, Contra Costa, Cuyamaca, Feather River, Gavilan, Irvine Valley, L.A. City, Lake Tahoe, Laney, Marin, Mendocino, Merced, Merritt, Mission, Monterey, Napa Valley, Saddleback, Santa Rosa, Southwest L.A., West L.A., West Valley
D2	42%	26%	30.5		62.6	81.3	73.3	41	Antelope Valley, Chaffey, Citrus, Compton, Copper Mountain, Crafton Hills, Cypress, De Anza, Desert, Diablo Valley, El Camino, Evergreen Valley, Folsom Lake, Fresno City, Fullerton, Glendale, Golden West, Grossmont, L.A. Harbor, L.A. Mission, L.A. Pierce, L.A. Valley, Los Medanos, Modesto, Moorpark, Mt. San Jacinto, Orange Coast, Oxnard, Pasadena City, Riverside, Sacramento City, San Diego City, San Diego Mesa, San Joaquin Delta, Santa Barbara City, Santa Monica City, Solano, Southwestern, Ventura, Victor Valley, Yuba
D3	40%	28%	122.7		72.5	77.5	74.8	10	Bakersfield, Butte, Coalinga, Cuesta, Imperial Valley, Lemoore, Porterville, Reedley, Sequoias, Shasta
D4	46%	34%	25.6		65.1	87.4	75.8	23	Alameda, American River, Cabrillo, Cerritos, Chabot, Cosumnes River, East L.A., Foothill, Hartnell, L.A. Trade-Tech, Las Positas, Long Beach City, Mira Costa, Mt. San Antonio, Ohlone, Palomar, San Bernardino, San Diego Miramar, San Francisco City, San Jose City, San Mateo, Sierra, Skyline
D5	45%	46%	240.3		75.9	79.1	77.4	3	Lassen, Redwoods, Siskiyous
D6	65%	47%	60.9		83.1	96.7	89.6	6	Canyons, Palo Verde, Rio Hondo, Santa Ana, Santiago Canyon, Taft
Statewide Average	**43%**	**34%**	**48.3**				**74.9**	**N = 110**	

*** Vocational Course Completion Rates reported for 2010-11.**

Appendix A: Peer Groups
Table A5: Pre-Collegiate Improvement: Basic Skills and ESL
Basic Skills Course Completion Rate Peer Group

	Means of Predictors			Basic Skills Course Completion Rate*			Peer Group Colleges	
Peer Group Number	Student Count Fall 2007	Nearest CSU SAT Math 75th Pctl. 2007	Poverty Index	Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
E1	11630	569.2	0.09	52.3	72.6	63.8	36	Allan Hancock, Cabrillo, Canada, Chabot, Citrus, Coastline, Contra Costa, Cosumnes River, Cuesta, Cuyamaca, Cypress, Evergreen Valley, Gavilan, Golden West, Grossmont, Hartnell, Irvine Valley, Las Positas, Los Medanos, Marin, Mira Costa, Mission, Monterey, Moorpark, Napa Valley, Ohlone, Oxnard, San Diego Miramar, San Jose City, San Mateo, Santiago Canyon, Shasta, Skyline, Solano, Ventura, West Valley
E2	15283	545.9	0.20	50.8	73.1	60.7	17	Bakersfield, Butte, Coalinga, Fresno City, Imperial Valley, L.A. City, L.A. Trade-Tech, L.A. Valley, Long Beach City, Merced, Porterville, Reedley, Sacramento City, San Diego City, San Joaquin Delta, Sequoias, Taft
E3	26210	563.8	0.09	52.2	76.6	63.5	16	American River, Canyons, De Anza, Diablo Valley Foothill, Fullerton, Mt. San Antonio, Orange Coast Palomar, Saddleback, San Diego Mesa San Francisco City, Santa Ana, Santa Rosa Sierra, Southwestern
E4	6571	537.7	0.15	40.8	70.2	58.5	22	Alameda, Antelope Valley, Barstow, Berkeley City College, Cerro Coso, Columbia, Copper Mountain, Crafton Hills, Desert, Feather River, L.A. Mission, Lake Tahoe, Laney, Lassen, Mendocino, Merritt, Palo Verde, Redwoods, San Bernardino, Siskiyous, Victor Valley, Yuba
E5	23893	503.8	0.15	57.3	68.7	63.0	13	Cerritos, Chaffey, East L.A., El Camino, Glendale, L.A. Pierce, Modesto, Mt. San Jacinto, Pasadena City, Rio Hondo, Riverside, Santa Barbara City, Santa Monica City
E6	7707	450.0	0.22	46.7	57.2	52.2	4	Compton, L.A. Harbor, Southwest L.A., West L.A.
Statewide Average	**14512**	**546.1**	**0.13**			**61.7**	**N = 108**	

*** Basic Skills Course Completion Rates reported for 2010-11.**

Appendix A: Peer Groups
Table A6: Pre-Collegiate Improvement: Basic Skills and ESL
Basic Skills Improvement Rate Peer Group

	Means of Predictors			Basic Skills Improvement Rate*			Peer Group Colleges	
Peer Group Number	Pct. on Financial Aid Fall 2006	Avg Unit Load Fall 2006	Selectivity of Nearest 4-Year 2006	Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
F1	8.5%	7.6	28.5	32.6	67.3	52.8	25	Alameda, Allan Hancock, American River, Berkeley City College, Cerritos, Chabot, Compton, Contra Costa, Cuesta, Cuyamaca, Diablo Valley, El Camino, Folsom Lake, L.A. Harbor, Laney, Los Medanos, Merritt, Ohlone, San Diego City, San Diego Mesa, San Diego Miramar, Santa Monica City, Southwest L.A., Ventura, West L.A.
F2	9.0%	8.4	62.0	38.8	76.9	58.4	47	Antelope Valley, Bakersfield, Barstow, Cabrillo, Canyons, Chaffey, Citrus, Columbia, Cosumnes River, Crafton Hills, Cypress, De Anza, Desert, Evergreen Valley, Fullerton, Gavilan, Golden West, Grossmont, L.A. City, L.A. Mission, L.A. Pierce, L.A. Valley, Las Positas, Lassen, Long Beach City, Mira Costa, Modesto, Moorpark, Mt. San Antonio, Mt. San Jacinto, Napa Valley, Orange Coast, Oxnard, Palo Verde, Palomar, Pasadena City, Riverside, Sacramento City, Saddleback, San Bernardino, San Francisco City, San Jose City, Santa Barbara City, Shasta, Sierra, Solano, Southwestern
F3	28.7%	12.4	43.9	60.3	60.3	60.3	1	Imperial Valley
F4	18.4%	8.9	67.1	25.0	64.2	52.8	15	Butte, Coalinga, Copper Mountain, Feather River, Fresno City, Glendale, Merced, Porterville, Redwoods, Reedley, San Joaquin Delta, Sequoias, Siskiyous, Victor Valley, Yuba
F5	6.5%	6.9	63.3	41.6	72.1	58.1	17	Canada, Cerro Coso, East L.A., Foothill, Hartnell, Irvine Valley, L.A. Trade-Tech, Marin, Mendocino, Mission, Monterey, Rio Hondo, San Mateo, Santa Rosa, Santiago Canyon, Skyline, West Valley
F6	3.7%	4.1	56.9	48.6	62.3	55.0	4	Coastline, Lake Tahoe, Santa Ana, Taft
Statewide Average	**9.8%**	**7.9**	**54.9**			**56.2**	**N = 109**	

*** Basic Skills Improvement Rates reported for 2008-09 to 2010-11**

Appendix A: Peer Groups
Table A7: Pre-Collegiate Improvement: Basic Skills and ESL
ESL Improvement Rate Peer Group

	Means of Predictors			ESL Improvement Rate*			Peer Group Colleges	
Peer Group Number	Student Count Fall 2006	Pct Students Age 30+ Fall 2006	English Not Spoken Well Index	Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
G1	7414.2	49.2%	0.07	0.0	78.6	45.6	25	Allan Hancock, Barstow, Berkeley City College, Canada, Cerro Coso, Coastline, Columbia, Contra Costa, Cuyamaca, Feather River, Gavilan, Irvine Valley, Lake Tahoe, Laney, Lassen, Marin, Mendocino, Merritt, Mission, Monterey, Napa Valley, Palo Verde, Siskiyous, Taft, West Valley
G2	11213.9	30.2%	0.06	10.1	67.5	48.8	29	Alameda, Antelope Valley, Butte, Cabrillo, Chabot, Copper Mountain, Cosumnes River, Crafton Hills, Cuesta, Diablo Valley, Grossmont, Las Positas, Los Medanos, Mira Costa, Moorpark, Mt. San Jacinto, Ohlone, Oxnard, Redwoods, San Bernardino, San Diego Miramar, San Mateo, Shasta, Sierra, Skyline, Solano, Ventura, Victor Valley, Yuba
G3	10769.8	31.5%	0.17	24.1	70.2	51.4	22	Citrus,Coalinga, Compton, Cypress, Desert, Evergreen Valley, Glendale, Golden West, Hartnell, Imperial Valley, L.A. Harbor, L.A. Mission, L.A. Valley, Merced, Porterville, Reedley, Rio Hondo, San Jose City, Santiago Canyon, Sequoias, Southwest L.A., West L.A.
G4	27182.8	42.2%	0.09	45.0	71.6	54.8	8	American River,Canyons, Foothill, Palomar, Saddleback, San Francisco City, Santa Ana, Santa Rosa
G5	22833.0	25.5%	0.12	40.8	69.2	57.9	21	Bakersfield, Cerritos, Chaffey, De Anza, El Camino, Fresno City, Fullerton, L.A. Pierce, Long Beach City, Modesto, Mt. San Antonio, Orange Coast, Pasadena City, Riverside, Sacramento City, San Diego City, San Diego Mesa, San Joaquin Delta, Santa Barbara City, Santa Monica City, Southwestern
G6	20357.0	40.8%	0.27	10.8	55.9	39.9	3	East L.A., L.A. City, L.A. Trade-Tech
Statewide Average	**13788.3**	**35.1%**	**0.10**			**50.8**	**N = 108**	

***ESL Improvement Rates reported for 2008-09 to 2010-11**

Blank page inserted for reproduction purposes only.

APPENDIX B:
METHODOLOGY FOR DERIVING COUNTS AND RATES FOR SYSTEMWIDE AND COLLEGE LEVEL PERFORMANCE INDICATORS

METHODOLOGY FOR SYSTEMWIDE INDICATORS

TABLES 1-3: ANNUAL NUMBER AND PERCENTAGE OF BACCALAUREATE STUDENTS WHO ATTENDED A CCC

Definition: The annual number and percentage of Baccalaureate students graduating from CSU and UC from 2005-2006 to 2010-2011 who originally attended a California Community College (CCC).

A. California State University (CSU)

Data Source: California State University (CSU), Division of Analytical Studies

Total BA/BS:
Number of undergraduate degrees from 2005-2006 to 2010-2011 from the table titled: *Undergraduate and Graduate Degrees Granted, Systemwide from 1935-1936 to 2010-2011*.

Total from CCC:
Number of Baccalaureate students who attended a CCC from 2005-2006 to 2010-2011 is from the tables titled: *Baccalaureates Granted to Students Who Originally Transferred From California Community Colleges, by Campus.*

Note: The reports are based on data submitted by CSU campuses in the Enrollment Reporting System-Degrees (ERSD) system.

Calculation: CSU Percent = Total from CCC/Total BA/BS

B. University of California (UC)

Data Source: University of California Office of the President (UCOP)

Total BA/BS:
Number of Bachelor degrees received at UC from 2005-2006 to 2010-2011 from the On-Line Data System reports: *Degrees/Completion-Total Degrees*.

Total from CCC:
Number of Bachelor degrees received at UC from 2005-2006 to 2010-2011 from the On-Line Data System reports: *Degrees/Completion-Total Degrees-Community Colleges*.

Calculation: UC Percent = Total from CCC/Total BA/BS

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLES 4-7: ANNUAL NUMBER OF COMMUNITY COLLEGE TRANSFERS TO FOUR-YEAR INSTITUTIONS (CSU/UC)

Definition: The annual number of community college transfers to CSU and UC from 2005-2006 to 2010-2011.

A. California State University (CSU)

Data Source: California State University (CSU), Division of Analytical Studies

Total Transfers:
Number of transfers from 2005-2006 to 2010-2011 is from the tables titled: *California Community College Transfers to the California State University System.*

Note: The reports are based on data submitted by CSU campuses in the Student Enrollment File (ERSS) of the Enrollment Reporting System.

B. University of California (UC)

Data Source: University of California (UC)

Total Transfers:
Number of transfers from 2005-2006 to 2010-2011 is from the table titled: *Full-year enrollees: California community college transfers.*

Note: The full-year enrollees of California community college transfers are from all campuses combined and reflect an unduplicated count.

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLES 4, 5 AND 8: ANNUAL NUMBER OF COMMUNITY COLLEGE TRANSFERS TO FOUR-YEAR INSTITUTIONS (ISP/OOS)

Definition: The annual number of community college transfers to In-State Private (ISP) and Out-of-State (OOS) four-year institutions from 2005-2006 to 2010-2011 were determined by aggregating a series of cohorts (1994-1995 to 2009-2010) consisting of first-time freshman within an academic year. The aggregated cohorts represent students that completed at least 12 units in the community college system. The data was disaggregated by the academic year the students transferred (transfer year) to an independent or out-of-state four-year institution.

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

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

Outcome
A student must successfully achieve the following outcome by 2010-2011.
1. Transferred to Four-Year Institution
Match with National Student Clearinghouse (NSC), UC and CSU files

*Systemwide is defined as all California Community Colleges

Note: A data-reporting artifact may occur for the year that an institution joins National Student Clearinghouse (NSC). All of the matches that occur for that institution from previous years (a cumulative count that spans pre-NSC membership years) would be reported by the NSC as transfers for that first year. To eliminate this artifact from the ARCC report, we zero out the transfer count for the first year that an institution joins the NSC. Therefore, the volume of transfer counts for Tables 4, 5 and 8 (ISP and OOS) is lower for the same years from previous ARCC reports.

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 9: TRANSFER RATE TO FOUR-YEAR INSTITUTIONS

Definition: The cohorts for the transfer rate consisted of first-time students with minimum of 12 units earned who attempted a transfer level Math or English course during enrollment and who transferred to a four-year institution within 6 years. The cohorts consisted of first-time students from 2003-200 (Cohort 1), 2004-2005 (Cohort 2) and 2005-2006 (Cohort 3) who completed at least 12 units by 2008-2009 (Cohort 1), 2009-2010 (Cohort 2) and 2010-2011 (Cohort 3).

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

Cohort
First-Time Students
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 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. Math Course
Attempted Enrollment in course(s) where:
CB03 COURSE-TOP-CODE = 17*
CB05 COURSE-TRANSFER-STATUS = A, B

2. English Course
Attempted Enrollment in course(s) where:
CB03 COURSE-TOP-CODE = 1501*, 1503*, 1504*, 1507*, 1520*
CB05 COURSE-TRANSFER-STATUS = A, B

Outcome
A student must successfully achieve the following outcome within six years:
1. Transferred to Four-Year Institution
Match with NSC, UC, and CSU files

Calculation: Transfer Rate = Outcome/Cohort

*Systemwide is defined as all California Community Colleges

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLES 10 AND 11: ANNUAL NUMBER OF VOCATIONAL AWARDS BY PROGRAM AND "TOP 25" VOCATIONAL PROGRAMS BY VOLUME OF TOTAL AWARDS

Methodology: RA&A (Research, Analysis and Accountability Unit) and the CCCCO MIS staff extracted awards data by academic program (using the four-digit TOP* Code to identify the program) for those students earning awards in the three most recent academic years (2008-2009, 2009-2010, and 2010-2011). Only TOP Codes with vocational indicators were selected for this analysis. The analysis covered AA and AS degrees, and credit certificates ranging from those for less than 6 units to those for 60 units and above.

Total credit awards for each of the three academic years are the sum of AA/AS degrees plus credit certificates.

We present total credit awards, AA/AS degrees and credit certificates alphabetically in Table 10 and in descending order by Total Credit Awards (AA/AS degrees plus certificates) in Table 11.

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

*The Taxonomy of Programs (TOP) is a system of numerical codes used at the state level to collect and report information on programs and courses, in different colleges throughout the state that have similar outcomes. Using the four-digit TOP code to identify programs for this outcome indicator means that the awards numbers are aggregated at the subdiscipline level. For example, the four-digit TOP code for the nursing subdiscipline covers the fields of Registered Nursing, Licensed Vocational Nursing, Certified Nurse Assistant and Home Health Aide.

For further information on TOP codes, consult the most recent edition of *The California Community Colleges Taxonomy of Programs*, available at the CCCCO Web site.

Appendix B: Methodology for Systemwide and College Performance Indicators

FIGURES 6a-6c: INCREASE IN WAGES FOLLOWING RECEIPT OF DEGREE/CERTIFICATE

Methodology: RA&A (Research, Analysis and Accountability Unit) and the CCCCO MIS staff developed three cohorts from the COMIS for analysis of wage progression following award attainment. The cohorts consisted of non-special-admit students meeting the full-term reporting criteria who received any award during 2003-2004 (Cohort 1), 2004-2005 (Cohort 2), or 2005-2006 (Cohort 3).

We selected these cohort years to ensure sufficient data to track wages across time.

To be included in a cohort, these students could no longer be enrolled in a community college during the two years immediately after their awards and they could not have transferred out to a four-year institution. Cohort members were matched to the California Employment Development Department's (EDD's) wage file (even if zero wages were reported for some quarters or years) and their wage data extracted for up to five years before award and for as many years after award as the EDD data were available. For the 2003-2004 cohort, five complete years of post-award wage data were available. Five years of post-award wage data were also available for the 2004-2005 cohort, and four full years of post-award wage data were available for the 2005-2006 cohort.

From the combined COMIS and EDD wage data file, we selected students who received vocational education award(s) and had greater than zero wages reported in all years. We calculated median wages for each cohort and compared the trend for these wages with trends for California Median Household Income and California Per Capita Income for years that matched the EDD wage data as closely as possible. Figures 6a, 6b, and 6c present these trends for each wage cohort. Tables 12a, 12b, and 12c include the actual data used to develop the trend lines in Figures 6a to 6c. Wages for this analysis were not adjusted for inflation.

Data Source: Chancellor's Office Management Information System (COMIS); California Employment Development Department (EDD); California Department of Finance; U.S. Census Bureau; U.S. Department of Commerce, Bureau of Economic Analysis.

Note: More recent EDD wage data were unavailable as of the date of this report. The charts and tables reflect the most recent data available for use by the Chancellor's Office.

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLES 12a-12c: INCREASE IN WAGES FOLLOWING RECEIPT OF DEGREE/CERTIFICATE

Methodology: RA&A (Research, Analysis and Accountability Unit) and the CCCCO MIS staff developed three cohorts from the COMIS for analysis of wage progression following award attainment. The cohorts consisted of non-special-admit students meeting the full-term reporting criteria who received any award during 2003-2004 (Cohort 1), 2004-2005 (Cohort 2), or 2005-2006 (Cohort 3).

We selected these cohort years to ensure sufficient data to track wages across time.

To be included in a cohort, these students could no longer be enrolled in a community college during the two years immediately after their awards, and they could not have transferred out to a four-year institution. Cohort members were matched to the California Employment Development Department's (EDD's) wage file (even if zero wages were reported for some quarters or years) and their wage data extracted for up to five years before award and for as many years after award as the EDD data were available. For the 2003-2004 cohort, five complete years of post-award wage data were available. Five years of post-award wage data were also available for the 2004-2005 cohort, and four full years of post-award wage data were available for the 2005-2006 cohort.

From the combined COMIS and EDD wage data file, we selected students who received vocational education award(s) and had greater than zero wages reported in all years. We calculated median wages for each cohort and compared the trend for these wages with trends for California Median Household Income and California Per Capita Income for years that matched the EDD wage data as closely as possible. Figures 6a, 6b, and 6c present these trends for each wage cohort. Tables 12a, 12b, and 12c include the actual data used to develop the trend lines in Figures 6a to 6c. Wages for this analysis were not adjusted for inflation.

Data Source: Chancellor's Office Management Information System (COMIS); California Employment Development Department (EDD); California Department of Finance; U.S. Census Bureau; U.S. Department of Commerce, Bureau of Economic Analysis

Note: More recent EDD wage data were unavailable as of the date of this report. The charts and tables reflect the most recent data available for use by the Chancellor's Office.

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 13: ANNUAL NUMBER OF CREDIT BASIC SKILLS IMPROVEMENTS

Methodology: RA&A and the CCCCO MIS staff extracted the annual statewide number of students completing credit coursework at least one level above their prior credit basic skills enrollment. Students in the cohorts for this indicator (2006-2007 to 2008-2009, 2007-2008 to 2009-2010, and 2008-2009 to 2010-2011) must have enrolled in a credit basic skills English, ESL, or Mathematics course, then in a subsequent term enrolled in a higher-level credit course (basic skills or not basic skills).

Basic skills courses are those with a COURSE-BASIC-SKILLS-STATUS (CB08) of "B".

To be counted as "improved" a student must have enrolled in a credit basic skills course, then in a subsequent term, the student must enroll in a credit course with a course program code in the same discipline (English, ESL, or Math), but which is at a higher level.

The criterion for improvement was that the student completed the higher level course with a grade of C or better.

A student is counted only once in Mathematics and/or English regardless of how many times they improve.

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

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLES 14-18: PARTICIPATION RATES

Methodology: The Systemwide Participation Rate is the count of students enrolled in the California Community Colleges relative to California's population.

RA&A extracted statewide population projections for 18 to 65 year olds with demographic breakdowns by ethnicity, gender, and age from the Department of Finance's (DOF) website for 2008, 2009, 2010, and 2011.

CCCCO MIS staff extracted corresponding demographic data for the statewide community college system for Academic Years 2008-09, 2009-10, and 2010-2011.
RA&A calculated the rates of community college participation per 1,000 population by age group, gender, and ethnicity as follows:

$$\frac{\text{Community College Enrollment for Academic Year}}{\text{DOF Population for Year}} \times 1{,}000$$

RA&A used the DOF data that correspond to the Fall term of the academic year. For example, for CCCCO academic year 2008-2009, we used DOF annual data for 2008.

Data Sources: Chancellor's Office Management Information System (COMIS) and
State of California, Department of Finance, *Race/Ethnic Population Projections with Age and Sex Detail, 2000–2050.* Sacramento, CA, July 2007.

http://www.dof.ca.gov/html/DEMOGRAP/Data/RaceEthnic/Population-00-50/RaceData_2000-2050.asp

Appendix B: Methodology for College Performance Indicators

METHODOLOGY FOR COLLEGE LEVEL INDICATORS

TABLE 1.1: 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 >= 2.0)

The cohorts consisted of first-time students from 2003-2004 (Cohort 1), 2004-2005 (Cohort 2) and 2005-2006 (Cohort 3) who achieved outcomes by 2008-2009 (Cohort 1), 2009-2010 (Cohort 2) and 2010-2011 (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 >= 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*, 1520*
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

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 1.1: STUDENT PROGRESS AND ACHIEVEMENT RATE (continued)

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

3. Transfer Directed
CB03 COURSE-TOP-CODE = 1501*, 1503*, 1504*, 1507*, 1520*
CB05 COURSE-TRANSFER-STATUS = A, B
SX04 ENROLLMENT-GRADE = A, B, C, P
AND
CB03 COURSE-TOP-CODE = 17*
CB05 COURSE-TRANSFER-STATUS = A, B
SX04 ENROLLMENT-GRADE = A, B, C, 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, P

5. Transferred to Four-Year Institution
Match with NSC, UC, CSU file

Calculation: Student Progress and Achievement Rate = Outcomes/Cohort

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 1.1a: 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 2003-2004 (Cohort 1), 2004-2005 (Cohort 2) and 2005-2006 (Cohort 3) who achieved outcomes by 2008-2009 (Cohort 1), 2009-2010 (Cohort 2) and 2010-2011 (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*, 1520*
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 B: Methodology for Systemwide and College Performance Indicators

TABLE 1.2: 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 2007 (Cohort 1), Fall 2008 (Cohort 2) and Fall 2009 (Cohort 3). Persistence was measured by their enrollment in Fall 2008 (Cohort 1), Fall 2009 (Cohort 2) and Fall 2010 (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 >= 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 B: Methodology for Systemwide and College Performance Indicators

TABLE 1.3: 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 (2008-2009, 2009-2010, and 2010-2011). 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 P.

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, P, NP, I*, W, DR

Outcome
The student must complete the course with:
SX04 ENROLLMENT-GRADE = A, B, C, or P

Calculation: Successful Course Completion Rate = Outcome/Cohort

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 1.4: 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 (2008-2009, 2009-2010, and 2010-2011). 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). 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 P.

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, P, NP, I*, W, DR

Outcome
The student must complete the course with:
SX04 ENROLLMENT-GRADE = A, B, C, or P

Calculation: Successful Course Completion Rate = Outcome/Cohort

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 1.5: 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. Students enrolled in any ESL course coded CB 21 prior to transfer level English were included in the cohort. Taxonomy of Programs (TOP) codes were used to identify ESL courses and disciplines within ESL (reading, writing, listening/speaking, integrated ESL). 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 Pass (P).

Students who successfully completed the initial ESL course were then followed across three academic years (including the year and term of the initial course). For ESL writing, reading, speaking/listening, the outcome of interest was that group of students who successfully completed a higher-level ESL course in the same discipline (writing, reading, speaking/listening) or a transfer level English course within three academic years of completing the first ESL course. In the case where the qualifying cohort course was Integrated ESL (TOP Code 4930.87), improvement was signaled by progress in higher level integrated ESL or a higher level ESL course in writing or reading or speaking/listening, or transfer level English.

Cohorts were developed and followed for academic years 2006-2007 to 2008-2009, 2007-2008 to 2009-2010, and 2008-2009 to 2010-2011.

Data Source: Chancellor's Office Management Information System (COMIS)
For step-by-step improvement logic: See the MIS spreadsheet at:
http://www.cccco.edu/Portals/4/TRIS/research/ARCC/BSI_ESL_Specs_February_2011.xls

Cohort

All of the following must be true for cohort selection:
1. SB11 STUDENT-EDUCATION-STATUS NE 10000
2. CB03 COURSE-TOP-CODE = 4930.84, 4930.85, 4930.86, 4930.87
3. CB04 COURSE-CREDIT-STATUS = C
4. CB08 COURSE-BASIC-SKILLS-STATUS = B
5. CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL =A, B, C, D, E, F
6. SX04 ENROLLMENT-GRADE = A, B, C, P

Outcome

For the ESL Writing Cohort: Subsequent course must be within 2 years of the qualifying enrollment (i.e., follow across 3 academic years, including year and term of qualifying enrollment) and

CB03 COURSE-TOP-CODE = 4930.84, 1501.**, 1503.**, 1504.**, 1507.**,1520.00
-AND-

CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL = Higher level than CB21 for cohort qualifying course. For example: F to E, D, C, B, A
E to D, C, B, A
D to C, B, A
C to B, A
B to A

-OR-

CB04 COURSE-CREDIT-STATUS for subsequent course = D

-AND-

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

For the ESL Reading Cohort: Subsequent course must be within 2 years of the qualifying enrollment (i.e., follow across 3 academic years, including year and term of qualifying enrollment) and

CB03 COURSE-TOP-CODE = 4930.85, 1501.**, 1503.**, 1504.**, 1507.**, 1520.00

-AND-

CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL = Higher level than CB21 for cohort qualifying course. For example: F to E, D, C, B, A
E to D, C, B, A
D to C, B, A
C to B, A
B to A

-OR-

CB04 COURSE-CREDIT-STATUS for subsequent course = D

-AND-

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

For the ESL Listening and Speaking Cohort: Subsequent course must be within 2 years of the qualifying enrollment (i.e., follow across 3 academic years, including year and term of qualifying enrollment) and

CB03 COURSE-TOP-CODE = 4930.86, 1501.**, 1503.**, 1504.**, 1507.**, 1520.00

-AND-

CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL = Higher level than CB21 for cohort qualifying course. For example: F to E, D, C, B, A
E to D, C, B, A
D to C, B, A
C to B, A
B to A

-OR-

CB04 COURSE-CREDIT-STATUS for subsequent course = D

-AND-

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

For the ESL Integrated Cohort: For Integrated ESL (TOP Code 4930.87), improvement is signaled by progress in higher level Integrated ESL or a higher level ESL course in writing or reading or listening/speaking, or English or Reading courses (as designated by TOP Codes).

Subsequent course must be within 2 years of the qualifying enrollment (i.e., follow across 3 academic years, including year and term of qualifying enrollment) and

CB03 COURSE-TOP-CODE = 4930.84, 4930.85, 4930.86, 4930.87, 1501.**, 1503.**, 1504.**, 1507.**, 1520.00

-AND-

CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL = Higher level than CB21 for cohort qualifying course. For example: F to E, D, C, B, A
E to D, C, B, A
D to C, B, A
C to B, A
B to A

-OR-

CB04 COURSE-CREDIT-STATUS for subsequent course = D

-AND-

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

Calculation: Credit ESL Improvement Rate = Outcome/Cohort

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 1.5: IMPROVEMENT RATE FOR CREDIT BASIC SKILLS COURSES

Methodology: The basic skills improvement rate cohorts consisted of students enrolled in a credit basic skills Reading, Writing, 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. Students starting at one or more levels below transfer level were included in the cohorts. Taxonomy of Programs (TOP) codes were used to identify Math, Writing, and Reading courses. 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 Pass (P).

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 2006-2007 to 2008-2009, 2007-2008 to 2009-2010, and 2008-2009 to 2010-2011.

Data Source: Chancellor's Office Management Information System (COMIS)
For step-by-step improvement logic: See the MIS spreadsheet at:
http://www.cccco.edu/Portals/4/TRIS/research/ARCC/BSI_ESL_Data_Specs_July_2010.xls

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: 1701.00
   For Writing: 1501.00
   For Reading: 1520.00
3. CB04 COURSE-CREDIT-STATUS = C
4. CB08 COURSE-BASIC-SKILLS-STATUS = B
5. CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL = A, B, C, D
6. SX04 ENROLLMENT-GRADE = A, B, C, P

Outcome

For Math Cohort: Subsequent course must be within 2 years of the qualifying enrollment (i.e., follow across 3 academic years, including year and term of qualifying enrollment) and:

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

-AND-

CB03 COURSE-TOP-CODE = 1701.**
CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL = Higher Level than CB21 for cohort qualifying course. For example: D to C, B, A
C to B, A,
B to A

-OR-

CB03 COURSE-TOP-CODE = 1701.** or 1799.**
CB04 COURSE-CREDIT-STATUS for subsequent course = D

For Writing Cohort: Subsequent course must be within 2 years of the qualifying enrollment (i.e., follow across 3 academic years, including year and term of qualifying enrollment) and:

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

- AND –

CB03 COURSE-TOP-CODE = 1501.**
CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL = Higher Level than CB21 for cohort qualifying course. For example: D to C, B, A
C to B, A,
B to A

-OR-

CB03 COURSE-TOP-CODE = 1501.**, 1503.**, 1504.**, 1507.**, 1520.00
CB04 COURSE-CREDIT-STATUS for subsequent course = D

For Reading Cohort: Subsequent course must be within 2 years of the qualifying enrollment (i.e., follow across 3 academic years, including year and term of qualifying enrollment) and:

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

-AND-

CB03 COURSE-TOP-CODE = 1520.00, 1501.**
CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL = Higher Level than CB21 for cohort qualifying course. For example: D to C, B, A
C to B, A,
B to A

-OR-

CB03 COURSE-TOP-CODE = 1520.00, 1501.**, 1503.**, 1504.**, 1507.**
CB04 COURSE-CREDIT-STATUS for subsequent course = D

Calculation: Credit Basic Skills Improvement Rate = Outcome/Cohort

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 1.6: CAREER DEVELOPMENT AND COLLEGE PREPARATION (CDCP) PROGRESS AND ACHIEVEMENT RATE

Definition: Percentage of a cohort of first-time students who in their initial term at a CCC or their initial term plus the successive term (fall to spring, spring to fall, fall to winter, etc.) completed a minimum of 8 attendance hours in any single Career Development and College Preparation (CDCP) course or series of CDCP courses and who did NOT enroll in any credit course(s) in their first term, who are shown to have achieved ANY of the following outcomes within three years of entry:

- Successfully completed at least one degree-applicable credit course (excluding PE) after the date of CDCP (AKA: Transition to credit).
- Earned a CDCP certificate (data not yet available as of January 2011 ARCC draft).
- Achieved "Transfer Directed" (successfully completed both transfer-level Math AND English courses).
- Achieved "Transfer Prepared" (successfully completed 60 UC/CSU transferable units with a GPA >= 2.0).
- Earned an associate degree (AA, AS) and/or Credit Certificate.
- Transferred to a four-year institution.

The cohorts consisted of first-time students from 2006-2007 (Cohort 1), 2007-2008 (Cohort 2) and 2008-2009 (Cohort 3) who achieved outcomes by 2008-2009 (Cohort 1), 2009-2010 (Cohort 2), and 2010-2011 (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 Started in CDCP only or CDCP plus other noncredit courses:

1. Search systemwide (defined as all California Community Colleges) to determine first-time status. First-time students are defined as students taking CDCP course(s) for the first time at any CCC during the specified term. Exclude students with prior enrollments outside the CCC system.
   AND
2. Completed 8 or more positive attendance hours in course(s) designated as CDCP via a course control number or course ID by the CCCCO Academic Affairs Division, within two successive terms (e.g., if the student enrolled in more than one CDCP course, the sum of attendance hours for all CDCP courses in either term or accumulated across both terms must equal or exceed 8 hours).
   AND
3. Did not enroll in any credit courses during the first term they enrolled in CDCP (i.e., began in CDCP only or CDCP and other noncredit).

TABLE 1.6: CAREER DEVELOPMENT AND COLLEGE PREPARATION (CDCP) PROGRESS AND ACHIEVEMENT RATE (continued)

Outcomes
A student in the cohort must successfully achieve one or more of the following outcomes within the cohort period:

1. **Successfully completed at least one degree-applicable credit course (excluding PE) after the date of CDCP attendance**
   CB03COURSE-TOP- CODE NE 0835.**
   CB04 COURSE-CREDIT STATUS = D
   SX04 ENROLLMENT-GRADE = A, B, C, P

2. Became Transfer Directed
   CB03 COURSE-TOP-CODE = 1501*, 1503*, 1504*, 1507*
   CB05 COURSE-TRANSFER-STATUS = A, B
   SX04 ENROLLMENT-GRADE = A, B, C, P
   AND
   CB03 COURSE-TOP-CODE = 17*
   CB05 COURSE-TRANSFER-STATUS = A, B
   SX04 ENROLLMENT-GRADE = A, B, C, P

3. Became Transfer Prepared
   CB05 COURSE-TRANSFER-STATUS = A, B
      SX03 ENROLLMENT-UNITS-EARNED >= 60 at a college and/or anywhere in the system
   SX04 ENROLLMENT-GRADE = A, B, C, P

4. Earned Associate of Arts or Sciences Degree
   SP02 STUDENT-PROGRAM-AWARD = A, S

5. Earned Credit Certificate
   SP02 STUDENT-PROGRAM-AWARD = B, E, L, T, F, O

6. Transferred to Four-Year Institution
   Match with NSC, UC, CSU files

Note: The January 2012 ARCC report draft does not include CDCP Certificates in the outcome data. Data for CDCP certificates were not available at the time this report was published. Analysis of CDCP outcomes will include CDCP Certificates of Completion and Competency when certificate data become available.

Calculation: CDCP Progress and Achievement Rate = Outcome/Cohort

TABLE 1.6: CAREER DEVELOPMENT AND COLLEGE PREPARATION (CDCP) PROGRESS AND ACHIEVEMENT RATE (continued)

NOTE:

As of January 2012, data were available for one or more of the ARCC CDCP cohorts for the 41 colleges listed below.

Allan Hancock
Antelope Valley
Bakersfield *(New in 2012)*
Butte
Canyons
Cerritos
Citrus
Copper Mountain *(New in 2012)*
Cuesta
Desert
East L.A.
Fresno *(New in 2012)*
Gavilan
Glendale
Imperial Valley
L.A. City
L.A. Mission
L.A. Trade-Tech
L.A. Valley
Lake Tahoe
Long Beach City
Mendocino
Merced
Modesto
Mt. San Antonio
Mt. San Jacinto
Napa Valley
North Orange Continuing Education
Palomar
Pasadena City
Rancho Santiago CED
Rio Hondo
Saddleback
San Diego Continuing Education
San Francisco Continuing Education
Santa Barbara CED
Santa Monica City
Santa Rosa
Sequoias *(New in 2012)*
Southwest L.A.
Southwestern

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 1.7: ANNUAL UNDUPLICATED HEADCOUNT AND FULL-TIME EQUIVALENT STUDENTS

Definition:

Annual Unduplicated Headcount: Annual unduplicated headcount for Table 1.7 is based on students actively enrolled in Summer, Fall, Winter, and/or Spring terms. This headcount includes both credit and noncredit students. A student enrolled in multiple terms was counted only once for the year (i.e., not counted separately for each term). However, because this section of the ARCC report specifically addresses college level demographics, we counted the student at each college where he/she was actively enrolled during that year. For example, if a student enrolled at Yuba College in Summer and Fall 2006 and at American River College in Spring 2007, that student would be counted once at Yuba and once at American River for the 2006-2007 academic year. Students who meet the full-term reporting criteria in at least one of the terms during an academic year are included in this query. The full-term reporting criteria is defined as student headcount status (**STD7**) of A, B, C or F.

Full-Time Equivalent Students (FTES): The FTES (Resident only) figure includes both credit and noncredit students (including enhanced noncredit funding for Career Development and College Preparation). FTES is the major student workload measure, one of several, used in determining the eligibility for state funding of community colleges. The FTES does not reflect "headcount enrollment," but is the equivalent of 525 hours of student instruction per each FTES. FTES is derived by considering that one student could be enrolled in courses for 3 hours a day, 5 days a week, for an academic year of 35 weeks---so basically, a total of 525 hours per one FTES.

Methodology:

Annual Unduplicated Headcount: The annual unduplicated headcount was obtained from the Chancellor's Office Management Information System (COMIS) Data Mart for academic years 2008-2009, 2009-2010, and 2010-2011 (Summer, Fall, Winter, and Spring terms).

FTES: Fiscal Services calculates FTES under four different attendance accounting formulas:

- Positive attendance (actual attendance of each class meeting)
- Census week (e.g., weekly census) (coterminous course that lasts the full term)
- Daily census (a course that does not last the full term--example: summer and winter intersession)
- Independent study (distance education/work experience education)

Each method of attendance accounting ultimately calculates to a number of FTES (workload in hours) based on the number of students enrolled, the length of the course, and divided by 525.

The major numbers of FTES reported by the colleges are generated in weekly census procedure courses that are scheduled in the primary terms (quarter or semester system).

TABLE 1.7: ANNUAL UNDUPLICATED HEADCOUNT AND FULL-TIME EQUIVALENT STUDENTS (continued)

Courses that are scheduled as "weekly census" must be scheduled the same number of hours each week of the primary term. The terms usually equate to 35 weeks, but in some instances there are more weeks, or fewer weeks, than 35. However, in the calculation of FTES for any primary term weekly census course, the term-length-multiplier (TLM) may not exceed 17.5 (one-half of two terms totaling 35).

As per requirements in the California Code of Regulations, for weekly census courses, a census point is determined for purposes of accounting for enrolled students. To calculate FTES, the number of actively enrolled students in each course is multiplied by the number of scheduled hours as of the census day. The number of hours are then multiplied by 17.5 and divided by 525. (This calculation is made for each primary term.)

Data Source:

Annual Unduplicated Headcount: Chancellor's Office Management Information System (COMIS) Data Mart

FTES: 320 Report from CCCCO Fiscal Services (recalculation of annual data—known as "recal"). Recal data is used whenever possible. However, some annual data may be used due to data availability issues (if annual data is used, this is noted in the college profile).

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 1.8: AGE OF STUDENTS AT ENROLLMENT

Methodology: Counts of students by age at enrollment for each college were obtained from the Chancellor's Office Management Information System (COMIS) Data Mart for academic years 2008-2009, 2009-2010, and 2010-2011.

The percentages in Tables 1.8 through 1.10 are calculated by dividing the number of students in each category by the unduplicated annual headcount for that college. See Table 1.7 Methodology for a definition of unduplicated annual headcount. We are using the age categories that the Data Mart uses.

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

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 1.9: GENDER OF STUDENTS

Methodology: Counts of students by gender for each college were obtained from the Chancellor's Office Management Information System (COMIS) Data Mart for academic years 2008-2009, 2009-2010, and 2010-2011.

The percentages in Tables 1.8 through 1.10 are calculated by dividing the number of students in each category by the unduplicated annual headcount for that college. See Table 1.7 Methodology for a definition of unduplicated annual headcount.

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

TABLE 1.10: ETHNICITY OF STUDENTS

Methodology: Counts of students by ethnicity for each college were obtained from the Chancellor's Office Management Information System (COMIS) for academic years 2008-2009, 2009-2010, and 2010-2011.

The percentages in Tables 1.8 through 1.10 are calculated by dividing the number of students in each category by the unduplicated annual headcount for that college. See Table 1.7 Methodology for a definition of unduplicated annual headcount.

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

Blank page inserted for reproduction purposes only.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Introduction to Regression Methods

This section describes the basic methodology for work that research staff at the Chancellor's Office performed for the 2009, 2008, and 2007 ARCC reports. As noted in the introduction to Appendix A of the 2012 ARCC report, the Chancellor's Office has re-used the peer groupings that it produced for the 2009 ARCC report. Because the 2012 ARCC report relies upon the peer groupings previously produced for the 2009 ARCC report, the Chancellor's Office did not conduct new regression analyses for the 2012 ARCC report. Interested readers may wish to refer to Appendix A of this report for the detailed explanation.

The following text details the methodology used for the 2009, 2010, 2011, and 2012 ARCC reports. As a preliminary step to finding the peer group for each college and for each college performance indicator, the Chancellor's Office developed regression models to identify a parsimonious set of uncontrollable factors that predicted each college performance indicator. The Chancellor's Office then used the identified uncontrollable factors in a series of cluster analyses to find the specific peer colleges for each college performance indicator. Consequently, the regression models in the ARCC play an important role in our efforts to "level the playing field" for parties that will use the peer group comparisons.

Chancellor's Office researchers employed a hierarchical regression approach to identify the best set of uncontrollable factors that predict each of the seven college level performance indicators. Although we use the term "predict," these regression models are **not** causal models; these are adjustment models that adjust outcomes for factors beyond the control of college administrators.

Our extensive literature review and consultation with community college and higher education researchers helped us to identify a large set of potential predictor variables. The variable set was further limited by the availability of data for the predictor variables. The predictor variables that we tested for the models are listed in Table C1. Statistically significant correlations (where $p < .05$) with the most current outcome variable (the most recent cohort as of the 2009 ARCC report) provided a reduced set of variables considered for model development. For those predictor variables that included several years of data, the most appropriate time frame to the outcome variable was selected. For example, the ESL Improvement Rate covered the years 2005-06 to 2007-08, so we selected predictor variable data from the "middle years" of the cohort (e.g. Student Headcount as of Fall 2006).

At times, we found two or more predictor variables that were correlated with each other, as well as with the outcome (collinearity/multicollinearity). In this case, we selected the predictor variable with the highest correlation with the outcome variable. In other cases, the most logical variable was chosen for developing the final model. For example, Student Headcount based on the Chancellor's Office's data was highly correlated with the Carnegie Classification Fall Headcount based on IPEDS data and both were correlated with the outcome variable of persistence rate. We used the Chancellor's Office's data based on the immediacy to the outcome because the Carnegie Classification data included intervening steps that made it more removed from the outcome.

When exploratory data analysis indicated pronounced deviation from the normal distribution, we transformed the data as appropriate before estimating the regression equation.

The tables in Appendix C reflect regression models developed with the data that became available within the 2009 ARCC timeframe, including data resubmitted during the college data review period (October to December 2008). Use of the most recent data was important in the 2009 report, as it was with the 2008 ARCC report, given the effects of the Chancellor's Office's data quality efforts such as master course file update and student identifier clean-up.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Table C1: Potential Uncontrollable Factors (Predictors) for Regression Modeling								
		Progress Rate	30 Units Plus Rate	Persistence Rate	Vocational Completion Rate	Basic Skills Completion Rate	Basic Skills Improvement Rate	ESL Improve. Rate
		2002-03 to 2007-08	2002-03 to 2007-08	Fall 2006 to Fall 2007	2007-08	2007-08	2005-06 to 2007-08	2005-06 to 2007-08
1	Student Count Fall 2004	o	o	o				
2	Student Count Fall 2005	o	X	o				
3	Student Count Fall 2006	o	o	X			o	X
4	Student Count Fall 2007					X		
5	Average Unit Load for Fall 2004		X					
6	Average Unit Load for Fall 2005		o					
7	Average Unit Load for Fall 2006		o	o			X	
8	Average Unit Load for Fall 2007							
9	Percent Male Students Fall 2005							
10	Percent Male Students Fall 2006							
11	Percent Male Students Fall 2007				X			
12	Percent of Students Age 25+ Fall 2004	o	o	o				
13	Percent of Students Age 25+ Fall 2005	X	o	o				
14	Percent of Students Age 25+ Fall 2006	o	o	X				o
15	Percent of Students Age 25+ Fall 2007				o			
16	Percent of Students Age 30+ Fall 2004		o					
17	Percent of Students Age 30+ Fall 2005		o					
18	Percent of Students Age 30+ Fall 2006		o					X
19	Percent of Students Age 30+ Fall 2007				X			
20	Percent of Basic Skills Students Fall 2004	o						
21	Percent of Basic Skills Students Fall 2005	X						
22	Percent of Basic Skills Students Fall 2006	o						o
23	Percent of Basic Skills Students Fall 2007					o		
24	Percent of Students on Financial Aid Fall 2004	o		o				
25	Percent of Students on Financial Aid Fall 2005	o						
26	Percent of Students on Financial Aid Fall 2006	o					X	
27	Percent of Students on Financial Aid Fall 2007					o		
28	Percent Bachelor (25 plus) Index (Census)	X	o	o		o	o	
29	Percent Foreign Born Index (Census)							o
30	Percent Unemployed Index (Census)	o	o	o		o	o	
x--variable selected for final model; o--variable considered during model development but not selected for final model								

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Table C1: Potential Uncontrollable Factors (Predictors) for Regression Modeling								
		Progress Rate	30 Units Plus Rate	Persistence Rate	Vocational Completion Rate	Basic Skills Completion Rate	Basic Skills Improvement Rate	ESL Improve. Rate
		2002-03 to 2007-08	2002-03 to 2007-08	Fall 2006 to Fall 2007	2007-08	2007-08	2005-06 to 2007-08	2005-06 to 2007-08
31	Percent Below Poverty Index (Census)	o	o	o		X	o	
32	English Speaking Index (Census)							o
33	English Second Language Index (Census)							o
34	English Not Spoken Well Index (Census)	o						X
35	Economic Service Area Index (Household)	o	o	X		o	o	
36	Economic Service Area Index (Per Capita)	o	X	o		o	o	
37	Student Average Academic Preparation Index	o	o	o		o	o	
38	Miles from College to the Nearest UC	o		o	X			o
39	Miles from College to the Nearest CSU	o		o				o
40	Miles from College to the Nearest 4-Year	o		o	o			o
41	Selectivity of the Nearest UC (2004)							
42	Selectivity of the Nearest CSU (2004)							
43	Selectivity of the Nearest 4-Year (2004)							
44	Selectivity of the Nearest UC (2005)							
45	Selectivity of the Nearest CSU (2005)							
46	Selectivity of Nearest 4-Year (2005)							
47	Selectivity of the Nearest UC (2006)							
48	Selectivity of the Nearest CSU (2006)							
49	Selectivity of Nearest 4-Year (2006)						X	
50	Selectivity of the Nearest UC (2007)							
51	Selectivity of the Nearest CSU (2007)					o		
52	Selectivity of Nearest 4-Year (2007)				o			
53	Selectivity of CCC to Nearest UC (2004)							
54	Selectivity of CCC to Nearest CSU (2004)							
55	Selectivity of CCC to Nearest 4Year (2004)							
56	Selectivity of CCC to Nearest UC (2005)							
57	Selectivity of CCC to Nearest CSU (2005)							
58	Selectivity of CCC to Nearest 4Year (2005)		o					
59	Selectivity of CCC to Nearest UC (2006)							
60	Selectivity of CCC to Nearest CSU (2006)							
x--variable selected for final model; o--variable considered during model development but not selected for final model								

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Table C1: Potential Uncontrollable Factors (Predictors) for Regression Modeling								
		Progress Rate	30 Units Plus Rate	Persistence Rate	Vocational Completion Rate	Basic Skills Completion Rate	Basic Skills Improvement Rate	ESL Improve. Rate
		2002-03 to 2007-08	2002-03 to 2007-08	Fall 2006 to Fall 2007	2007-08	2007-08	2005-06 to 2007-08	2005-06 to 2007-08
61	Selectivity of CCC to Nearest 4Year (2006)						o	
62	Selectivity of CCC to Nearest UC (2007)							
63	Selectivity of CCC to Nearest CSU (2007)							
64	Selectivity of CCC to Nearest 4Year (2007)							
65	SAT Verbal 25th Pct of Nearest UC (2004)							
66	SAT Verbal 75th Pct of Nearest UC (2004)							
67	SAT Math 25th Pct of Nearest UC (2004)							
68	SAT Math 75th Pct of Nearest UC (2004)							
69	SAT Verbal 25th Pct of Nearest CSU (2004)	o						
70	SAT Verbal 75th Pct of Nearest CSU (2004)	o						
71	SAT Math 25th Pct of Nearest CSU (2004)	o	o					
72	SAT Math 75th Pct of Nearest CSU (2004)	o	o					
73	SAT Verbal 25th Pct of Nearest 4Yr (2004)	o						
74	SAT Verbal 75th Pct of Nearest 4Yr (2004)	o						
75	SAT Math 25th Pct of Nearest 4Yr (2004)	o						
76	SAT Math 75th Pct of Nearest 4Yr (2004)	o						
77	SAT Verbal 25th Pct of Nearest UC (2005)							
78	SAT Verbal 75th Pct of Nearest UC (2005)							
79	SAT Math 25th Pct of Nearest UC (2005)							
80	SAT Math 75th Pct of Nearest UC (2005)							
81	SAT Verbal 25th Pct of Nearest CSU (2005)	o						
82	SAT Verbal 75th Pct of Nearest CSU (2005)	o						
83	SAT Math 25th Pct of Nearest CSU (2005)	o	o					
84	SAT Math 75th Pct of Nearest CSU (2005)	o	o					
85	SAT Verbal 25th Pct of Nearest 4Yr (2005)	o						
86	SAT Verbal 75th Pct of Nearest 4Yr (2005)	o						
87	SAT Math 25th Pct of Nearest 4Yr (2005)	o						
88	SAT Math 75th Pct of Nearest 4Yr (2005)	o						
89	SAT Verbal 25th Pct of Nearest UC (2006)							
90	SAT Verbal 75th Pct of Nearest UC (2006)							
x--variable selected for final model; o--variable considered during model development but not selected for final model								

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Table C1: Potential Uncontrollable Factors (Predictors) for Regression Modeling								
		Progress Rate	30 Units Plus Rate	Persistence Rate	Vocational Completion Rate	Basic Skills Completion Rate	Basic Skills Improvement Rate	ESL Improve. Rate
		2002-03 to 2007-08	2002-03 to 2007-08	Fall 2006 to Fall 2007	2007-08	2007-08	2005-06 to 2007-08	2005-06 to 2007-08
91	SAT Math 25th Pct of Nearest UC (2006)							
92	SAT Math 75th Pct of Nearest UC (2006)							
93	SAT Verbal 25th Pct of Nearest CSU (2006)	o						
94	SAT Verbal 75th Pct of Nearest CSU (2006)	o						
95	SAT Math 25th Pct of Nearest CSU (2006)	o	o					
96	SAT Math 75th Pct of Nearest CSU (2006)	o	o	o				
97	SAT Verbal 25th Pct of Nearest 4-Yr (2006)	o						
98	SAT Verbal 75th Pct of Nearest 4-Yr (2006)	o						
99	SAT Math 25th Pct of Nearest 4-Yr (2006)	o						
100	SAT Math 75th Pct of Nearest 4-Yr (2006)	o						
101	SAT Verbal 25th Pct of Nearest UC (2007)							
102	SAT Verbal 75th Pct of Nearest UC (2007)							
103	SAT Math 25th Pct of Nearest UC (2007)							
104	SAT Math 75th Pct of Nearest UC (2007)							
105	SAT Verbal 25th Pct of Nearest CSU (2007)					o		
106	SAT Verbal 75th Pct of Nearest CSU (2007)					o		
107	SAT Math 25th Pct of Nearest CSU (2007)					o		
108	SAT Math 75th Pct of Nearest CSU (2007)					X		
109	SAT Verbal 25th Pct of Nearest 4Yr (2007)					o		
110	SAT Verbal 75th Pct of Nearest 4Yr (2007)					o		
111	SAT Math 25th Pct of Nearest 4Yr (2007)					o		
112	SAT Math 75th Pct of Nearest 4Yr (2007)					o		
113	Carnegie Basic Classification (2003-04)							
114	Carnegie Size and Setting (2003-04)	o	o	o				
115	Carnegie Fall Headcount (2003-04)	o	o	o				
116	Carnegie Degree of Urbanization (2003-04)							
117	Carnegie Associate Degree Total (2003-04)	o	o	o				
118	Carnegie Two Digit Programs (2003-04)							
119	Carnegie Four Digit Programs (2003-04)			o				
120	Carnegie Pct Part-Time Students (2003-04)		o					
x--variable selected for final model; o--variable considered during model development but not selected for final model								

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Table C1: Potential Uncontrollable Factors (Predictors) for Regression Modeling								
		Progress Rate	30 Units Plus Rate	Persistence Rate	Vocational Completion Rate	Basic Skills Completion Rate	Basic Skills Improvement Rate	ESL Improve. Rate
		2002-03 to 2007-08	2002-03 to 2007-08	Fall 2006 to Fall 2007	2007-08	2007-08	2005-06 to 2007-08	2005-06 to 2007-08
121	Carnegie FTE Enrollment (2003-04)	o		o				
122	Percent Foreign Born in County							
123	Below Poverty in County							
124	BA Plus in County							
125	Unemployment in County							
126	Educational Needs Index Score (ENI)	o	o	o		o		
127	Difference in College Attainment (ENI Indicator)							
128	Unemployment Rate-2003 (ENI Indicator)	o						
129	Pct of Under 65 in Poverty-2000 (ENI Indicator)	o		o		o		
130	Median Family Income-2000 (ENI Indicator)	o	o			o		
131	Per Capita Income-2000 (ENI Indicator)	o		o		o		
132	Educational Factors (ENI Factor)	o	o	o		o		
133	Economic Factors (ENI Factor)	o	o	o		o		
134	Market Demand Factors (ENI Factor)	o			o			
135	Rate 18-64 with HS Diploma (ENI Indicator)	o				o		
136	Rate 18-64 with AA Degree (ENI Indicator)	o						
137	Rate 18-64 with BA Degree (ENI Indicator)	o	o	o		o		
138	Rate of Manufacturing Employ(ENI Indicator)				o	o		
139	Pop Rate, Ages 0-19 (2000) (ENI Indicator)	o	o	o				
140	Pop Rate, Ages 20-44 (2000) (ENI Indicator)							o
141	Rate of Minority Pop (2000) (ENI Indicator)	o				o		
x--variable selected for final model; o--variable considered during model development but not selected for final model								

Table C2: Regression Model Summary

	N	Adjusted R-square
A: Progress & Achievement		0.703
Progress Rate for 2007-08	108	
Pct Students Age 25+ Fall 2005	109	
Pct Basic Skills Students Fall 2005	109	
Bachelor Plus Index	108	
Valid N (listwise)	108	
B: 30 Units Plus		0.457
Plus 30 Units Rate for 2007-08	108	
Student Count Fall 2005	109	
Average Unit Load for Fall 2004	109	
ESAI Per Capita Income	108	
Valid N (listwise)	108	
C: Persistence		0.544
Persistence Rate from Fall06 to Fall07	110	
Pct Students Age 25+ Fall 2006	110	
Student Count Fall 2006	110	
ESAI Household Income	108	
Valid N (listwise)	107	
D: Voc Course Completion Rate		0.406
Rate of Successful Vocational Course Completion 2007-2008	110	
Pct Male Students Fall 2007	110	
Pct Students Age 30+ Fall 2007	110	
Miles to Nearest UC	110	
Valid N (listwise)	110	
E: Basic Skills Course Completion		0.248
Rate of Successful Basic Skills Course Completion 2007-2008	110	
Student Count Fall 2007	110	
Nearest CSU SAT Math 75th Percentile Fall 2007	109	
Poverty Index	108	
Valid N (listwise)	108	
F: Basic Skills Improvement Rate		0.231
Basic Skills Improvement Rate 2005-06 to 2007-08	107	
Pct Students on Need-Based Financial Aid Fall 2006	108	
Average Unit Load Fall 2006	108	
Selectivity of Nearest Four-Year Institution 2006	107	
Valid N (listwise)	107	
G: ESL Improvement Rate		0.311
ESL Improvement Rate 2005-06 to 2007-08	103	
Student Count Fall 2006	110	
Pct Students Age 30+ Fall 2006	110	
English Not Spoken Well Index	108	

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Model Summary of the Student Progress and Achievement Rate

Results

The predictors for Student Progress and Achievement Rate (2002-2003 to 2007-2008) are:

- Pct Age 25+: The percentage of students at a community college in the Fall of 2005 that are age 25 years or older, obtained from the CCCCO MIS.

- Pct Basic Skills: The percentage of students at a community college in the Fall of 2005 taking at least one Credit Basic Skills Course (Basic and Pre-collegiate Basic), obtained from CCCCO MIS.

- BA Index: The Bachelor of Arts/Sciences Index represents the bachelor degree attainment of the population, 25 years or older in a college's service area. This index, created by CCCCO, combines the enrollment patterns (Fall 2000) of students by ZIP code of residence with educational data for ZCTA (ZIP Code Tabulation Area) codes obtained from Census 2000.

Table C3 below shows the regression weights for each step of the hierarchical model. The table also shows the zero-order correlation of the outcome variable with each predictor. The complete model has an adjusted $R^2 = .70$, $F(3, 104) = 85.49$, $p < .001$, with the regression weights for all predictors significant at the .05 level. Based on the standardized beta coefficients, the BA Index provides the largest relative contribution to the model. Multicollinearity is neglible in the final regression and the residuals appeared to be normally distributed.

Table C3: Hierarchical Regression Analysis Summary for the Progress and Achievement Rate (2002-03 to 2007-08)

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	59.70	3.34		
	Pct Age25+	-18.92	6.90	-.26	-.26
2	(Constant)	65.82	3.43		
	Pct Age25+	-19.47	6.42	-.27	-.26
	Pct Basic Skills	-41.85	9.96	-.37	-.36
3	(Constant)	49.54	2.39		
	Pct Age25+	-23.00	3.88	-.31	-.26
	Pct Basic Skills	-20.14	6.22	-.18	-.36
	BA Index	62.00	4.57	.74	.77

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Discussion

The percent of students age 25 years old and over is negatively associated with the student progress and achievement rate. Possibly, colleges with greater percentages of "older" students focus on education that does not include a certificate, degree or outcomes related to transfer. For example, older students might already be in the workforce but continue to take courses to enhance their job skills or other interests without degree or transfer as their goal.

The next variable entered into the model was the percent of students taking basic skills courses. The negative correlation between a college's progress and achievement rate and its percentage of students taking basic skills courses may indicate that the college serves students that are less academically prepared. The research literature supports the proposition that the readiness of the entering student population of a college, as measured by the percent of student taking basic skills courses, is related to college performance.

A community based predictor variable, the BA Index, was entered last. This college level variable, also developed by the Chancellor's Office, reflects the educational attainment of the population 25 years old and over for the service area of the college. Research indicates that a major predictor of college success is the level of parent education. In addition, studies indicate that the socioeconomic background of an area has a link to educational outcomes of those who grow up in a neighborhood (the so-called "neighborhood effect"). This variable was highly correlated with several other community variables such as poverty, income, and unemployment. The BA Index might be considered a proxy for these other variables or a combination of such variables in the broader context of a community's socioeconomics.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Model Summary of Students with At Least 30 Units Rate

Results

The predictors for Students with at Least 30 Units Rate (2002-2003 to 2007-2008) are:

- Student Count: The unduplicated number of students taking credit courses attending the college during the Fall of 2005.
- Average Unit Load: The average number of units carried by students at each college in Fall 2004.
- ESAI - Per Capita: The Economic Service Area Index - Per Capita represents the per capita income in a college's service area. Per capita is the mean income for every person in a particular group. This index, created by CCCCO, combines the enrollment patterns (Fall 2000) of students by ZIP code of residence with income data (1999) for ZCTA (ZIP Code Tabulation Area) codes obtained from Census 2000.

Table C4 below shows the regression weights for each step of the model. There was no need to transform the outcome variables for this year's new cohort of data. The table also displays the zero-order correlation of the outcome variable with each predictor. The full model has an adjusted $R^2 = .46$, $F(3, 104) = 31.01$, $p < .001$, with the regression weights for every predictor significant at the .05 level. The standardized beta coefficients show that all three predictor variables provide similar contributions to the model. Multicollinearity is neglible in the final regression, and the residuals appeared to be normally distributed.

Table C4: Hierarchical Regression Analysis Summary for Students with At Least 30 Units Rate (2002-03 to 2007-08)

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	66.54	0.82		
	Student Count	0.00	0.00	.43	.43
2	(Constant)	55.50	2.73		
	Student Count	0.00	0.00	.37	.43
	Average Unit Load	1.46	0.35	.35	.41
3	(Constant)	45.90	2.90		
	Student Count	0.00	0.00	.29	.43
	Average Unit Load	1.83	0.31	.44	.41
	ESAI - Per Capita	0.00	0.00	.43	.40

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Discussion

A campus- or college-based predictor variable, the student count, is positively associated with the rate of students completing at least 30 units. Theory suggests that economies of scale (which benefits larger colleges in comparison to smaller ones) enable larger colleges to have more resources to afford the special student services (i.e., orientation, counseling, and tutoring) that theoretically promote college success.

The average unit load at a college might serve as a proxy for full-time and part-time student status. Part-time students often must work or raise families. They are most likely older and enroll while maintaining other responsibilities. The assumption is that part-time students take longer to achieve an outcome and exhibit higher risk for non-completion.

The Economic Service Area Index - Per Capita represents the per capita, or individual income, of the area served by the college. This college index provides a measure of the economic conditions of the community served by the college (not just the neighborhoods geographically within any district boundaries). According to many studies, income plays a dramatic role in student achievement. Factors such as the ability to afford college, academic preparedness, and other challenges related to lower incomes present barriers to student success in college.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Model Summary of the Persistence Rate

Results

The predictors for the Persistence Rate (Fall 2006 to Fall 2007) are:

- Pct Age 25+: The percentage of students at a community college in the Fall of 2006 that are age 25 years or older, obtained from the CCCCO MIS.

- Student Count: The unduplicated number of students taking credit courses attending the college during Fall 2006.

- ESAI - Median HH: The Economic Service Area Index - Median Household Income represents the median household income of the population in a college's service area. This index, created by CCCCO, combines the enrollment patterns (Fall 2000) of students by ZIP code of residence with income data (1999) for ZCTA (ZIP Code Tabulation Area) codes obtained from Census 2000.

Table C5 illustrates the regression weights for each stage of the model. We transformed the persistence rate by squaring the data to reduce negative skewness and to approximate a normal distribution. This transformation changes the interpretation of the unstandardized coefficients (B) that we list below in Table C5, and this explains the relatively large number displayed for the unstandardized coefficient for the percentage of students age 25 or older (Pct Age25+). In plotting the residuals, we noticed Feather River College as an outlier. We decided to delete the college from the final model but included the college in the cluster analysis. The full model has an adjusted $R^2 = .54$, $F(3, 103) = 43.12$, $p < .001$, with the regression weights for every predictor significant at the .05 level. The standardized beta coefficients demonstrate that all three predictor variables provide comparable contributions to the model. The last column in the table contains the zero-order correlation of the persistence rate with each predictor. Multicollinearity is negligible in the final regression model and the residuals appear to be normally distributed.

Table C5: Hierarchical Regression Analysis Summary
for the Persistence Rate (Fall 2006 to Fall 2007)

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	6740.88	405.82		
	Pct Age25+	-4745.47	838.84	-.48	-.48
2	(Constant)	5558.85	449.04		
	Pct Age25+	-3741.42	796.05	-.38	-.48
	Student Count	0.05	0.01	.37	.48
3	(Constant)	3789.76	461.66		
	Pct Age25+	-3635.32	669.19	-.37	-.48
	Student Count	0.04	0.01	.30	.48
	ESAI - Median HH	0.04	0.01	.44	.52

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Discussion

The percentage of students age 25 and over is negatively associated with the student persistence rate. Possibly, colleges with greater percentages of "older" students focus on education that does not require persistent enrollment. For example, as with the student progress and achievement rate, older students might already be in the workforce and take several courses for job training or personal interests but not necessarily enroll in the subsequent year.

The student count is positively related with the rate of students persisting from a fall semester to a subsequent fall semester. This predictor reflects the college size. Theory suggests that economies of scale (which benefits larger colleges in comparison to smaller ones) enable larger colleges to have more resources to afford the special student services (i.e., orientation, counseling, and tutoring) that theoretically promote college success.

The Economic Service Area Index – Median Household Income provides a gauge of the economic conditions of the community served by the college. In the case of persistence, the higher the ESAI—Median HH for a college, the higher the persistence rate for that college. The theory is that income plays a vital role in student achievement. Factors such as the ability to afford college, academic preparedness, and other challenges related to lower incomes present barriers to student success in college. Colleges that serve areas with higher incomes may have the resources to encourage student persistence and may experience fewer economic barriers to persistence.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Model Summary of the Vocational Course Completion Rate

Results

The predictors for 2007-2008 Vocational Course Completion Rate are:

- PctMale_F07: The percentage of males in each community college population as of Fall 2007, obtained from the CCCCO MIS.

- Pct_30_F07_Root: The percentage of students age 30 years or older as of Fall 2007, obtained from the CCCCO MIS. Analysis of this variable indicated a skewed distribution. We used a square root transformation for the version of this variable included in the regression model.

- DistUC_Log: The distance in driving miles from the community college to the nearest University of California campus. Obtained from Yahoo Maps online service. Analysis of this variable indicated a skewed distribution. We used a LOG transformation for the version of this variable included in the regression model.

Table C6 shows the regression weights for the variables at each step of the hierarchical model, as well as the zero order correlation (Pearson) with the outcome variable for each predictor. The complete model had an adjusted $R^2 = .41$, $F(3, 106) = 25.88$, $p < .001$, with the regression weights for all predictors significant at the .05 level. Based upon the standardized beta coefficients, the Pct Male predictor provides the largest relative contribution to the model.

We detected negligible multicollinearity in the final regression model and the residuals appeared to be normally distributed, with the exception of two "outlier" colleges which tended to have higher percentages of male students and students age 30 years or older. However, the residual statistics did not quite justify excluding these colleges or using another approach (e.g., weighted least squares).

Table C6: Hierarchical Regression Analysis Summary for Vocational Course Completion Rate 2007-08

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	52.68	3.16		
	PctMale_F07	53.93	7.21	.58	.58
2	(Constant)	44.89	4.29		
	PctMale_F07	51.33	7.09	.56	.58
	Pct_30_F07_Root	15.34	5.88	.20	.28
3	(Constant)	41.37	4.35		
	PctMale_F07	51.40	6.88	.56	.58
	Pct_30_F07_Root	13.32	5.75	.17	.28
	DistUC_Log	3.14	1.13	.21	.24

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Discussion

Based on this analysis, the percentage of males in a college's student population and the percentage of students age 30 and above in that population are positively associated with vocational course completion rates. Keep in mind that these predictors are not causal and that they are related to institutions rather than to individuals. Assumptions made about individuals based on aggregate/institutional data of the type used for this report are vulnerable to the error known as the ecological fallacy. The ecological fallacy surfaces when associations between two variables at the group (college) level differ from associations between analogous variables measured at the individual level, e.g., attributing greater likelihood of vocational course completion to individual male students or to older students while using *institutional* completion rates and demographic data.

With regard to the variable Pct Male, many CCCs specialize in the academic programs they offer (e.g., transfer emphasis versus nontransferable vocational education emphasis), and some of those colleges may offer more vocational courses in traditionally male occupations based on their local labor markets. Thus they attract a larger percentage of males taking and completing vocational courses. In addition, male students theoretically may experience fewer barriers to course completion (e.g., elder care and child care responsibilities that tend to affect male students to a lesser extent).

In terms of the relationship of the Pct Age 30+ predictor with vocational course completion, colleges that serve communities with older populations may tailor courses and/or delivery strategies to this demographic group, resulting in higher completion rates for older students. Colleges providing vocational courses to specific subsets of the older student population (e.g., those re-entering the job market, displaced workers seeking retraining) may customize course offerings for these students, thus affecting vocational course completion rates.

At first glance, distance to the nearest UC does not make intuitive sense as a predictor for vocational course completion. However, this metric might serve as a proxy for another predictor or set of predictors for which the data are less readily available (e.g., urban/rural distinction, proximity of certain community colleges to specific industries that encourage/support vocational programs). Also, colleges tend to tailor their programs to the needs of their communities. Community colleges closer to the UCs may emphasize transfer courses rather than vocational courses to meet local needs, while colleges further from the UCs focus on vocational programs.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Model Summary of the Basic Skills Course Completion Rate

Results

The predictors for 2007-2008 Basic Skills Course Completion Rate are:

- St_Cnt_F07_Root: The student headcount for Fall 2007. Obtained from the CCCCO MIS. Analysis of this variable indicated a skewed distribution. We used a square root transformation for the version of this variable included in the regression model.

- CSU_SATMath75_07: The Scholastic Aptitude Test (SAT) Math 75th Percentile score for the nearest CSU. Obtained from the Integrated Postsecondary Education Data System (IPEDS).

- PovertyIndex_Root: The Poverty Index represents the poverty rate of the population in a college's service area. This index, created by CCCCO, combines the enrollment patterns (Fall 2000) of students by ZIP code of residence with the proportion of individuals under the age of 65 living in poverty for ZCTA (ZIP Code Tabulation Area) codes obtained from Census 2000. Analysis of this variable indicated a skewed distribution. We used a square root transformation for the version of this variable included in the regression model.

Table C7 below shows the regression weights for the variables at each step of the hierarchical model, as well as the zero order correlation (Pearson) with the outcome variable for each predictor. The complete model had an adjusted $R^2 = .25$, $F(3, 104) = 12.78$, $p < .001$. Based upon the standardized beta coefficients, the Poverty Index provides the largest relative contribution to the model.

We detected negligible multicollinearity in the final regression model and the residuals appeared to be normally distributed.

Table C7: Hierarchical Regression Analysis Summary for Basic Skills Course Completion Rate 2007-08

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	55.20	2.13		
	St_Cnt_F07_Root	.04	.02	.22	.22
2	(Constant)	23.44	8.45		
	St_Cnt_F07_Root	.04	.02	.22	.22
	CSU_SATMath75_07	.06	.02	.34	.35
3	(Constant)	46.84	10.02		
	St_Cnt_F07_Root	.03	.02	.19	.22
	CSU_SATMath75_07	.04	.02	.22	.35
	PovertyIndex_Root	-32.00	8.35	-.35	-.44

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Discussion

The proportion of individuals living in poverty in a college's service area (Poverty Index) had a moderately negative correlation with the college's Basic Skills Course Completion Rate. That is, the higher the poverty index the lower the basic skills course completion rate, in general. The Poverty Index most likely reflects uncontrollable factors (e.g., academic preparedness, parental education) that influence college success.

Regarding CSU SAT Math 75th percentile scores -- the higher the SAT score, the higher the basic skills course completion rate. Other research has shown that completing higher level math in high school correlates with ultimate degree completion (i.e., postsecondary success). In this analysis, the SAT math score for the nearest CSU may reflect academic preparedness, quality of high schools that send students to the community college, etc. – all factors related to basic skills course completion. Alternatively, if students from the nearest CSU are attending the community college to obtain basic skills remediation/courses, those CSUs with higher SAT scores may be sending students that are relatively better prepared to succeed in basic skills courses.

The student headcount is positively correlated with basic skills course success. This predictor reflects the college size. Theory suggests that economies of scale (which benefits larger colleges in comparison to smaller ones) enable larger colleges to have more resources to afford the special student services (i.e., orientation, counseling, and tutoring) that theoretically promote college success.

Although this year's adjusted R^2 exceeds last year's value as well as the adjusted R^2 in the 2007 ARCC report for this indicator, the adjusted R^2 value remains low. A consistently low adjusted R^2 for this model suggests the need for additional research to identify additional uncontrollable factors that may help explain basic skills course completion rates. If we can identify such factors, our model will have greater predictive power, which, in turn, will improve the quality of the subsequent peer grouping (by cluster analysis). Of course, it is possible that the factors that determine this specific outcome:

(a) are not measured by our data system or
(b) are predominately characterized as "controllable" factors or
(c) are interacting in ways that we have not adequately tested in the current regression process.

For example, scenario (a) could include factors such as student motivation, student employment, and student family obligations. Scenario (b) could include factors such as highly effective tutoring programs on campus and highly successful placement programs. Scenario (c) could involve the testing of mediating and moderating variables and interactions between predictors. From a policy analysis perspective, the potential for scenario (b) to explain our results implies that an in-depth analysis of basic skills could result in a very productive identification of institutional needs in the area of basic skills success. Naturally, a new study that encompasses both (a) and (b) may be ideal.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Model Summary of the Basic Skills Improvement Rate

Results

The predictors for the Basic Skills Improvement Rate (2005-2006 to 2007-2008) are:

- Pct_FinAid_F06_Root: The percentage of students on need-based financial aid in Fall 2006, the "middle year" for the Basic Skills Improvement cohort. Obtained from the CCCCO MIS. Analysis of this variable indicated a skewed distribution. We used a square root transformation for the version of this variable included in the regression model.

- AvgUnitLd_F06_Sqr: The average unit load at the community college as of 2006 calculated by summing the units attempted (by credit students) for the period of interest (Fall 2006) and dividing by the total count of credit students for this period. Obtained from the CCCCO MIS. Analysis of this variable indicated a skewed distribution. We squared the original data for the version of this variable included in the regression model.

- Select4year06: Selectivity of nearest four-year institution in 2006, calculated as the number of first-time, degree/certificate-seeking undergraduate students admitted to the institution, divided by the number of students who applied to that institution in Fall 2006.

The distribution of the outcome variable also indicated non-normality. Given the negative skew of that distribution, we squared the Basic Skills Improvement Rate to transform it for use in the regression modeling.

Table C8 below shows the regression weights for the variables at each step of the hierarchical model, as well as the zero order correlation (Pearson) with the outcome variable for each predictor. The complete model had an adjusted $R^2 = .23$, $F(3,103) = 11.63$, $p < .001$, with the regression weights for all predictors significant at the .05 level. We deleted two "outlier" colleges from the final regression model (Hair, et al., 2006), though they will still be included in the cluster analysis.

Based upon the standardized coefficients (beta), the percentage of students on need-based financial aid provides the largest contribution to the model relative to the other variables, followed by the selectivity of the nearest four-year college.

We detected negligible multicollinearity in the final regression model for this outcome and the residuals appeared to be normally distributed.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Table C8: Hierarchical Regression Analysis Summary for Basic Skills Improvement Rate 2005-06 to 2007-08

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	3488.00	240.99		
	Pct_Fin_Aid_F06_Root	-2700.06	779.84	-.32	-.32
2	(Constant)	3050.86	275.63		
	Pct_FinAid_F06_Root	-3611.79	813.40	-.43	-.32
	AvgUnitLd_F06_Sqr	11.28	3.82	.28	.12
3	(Constant)	2624.95	292.28		
	Pct_FinAid_F06_Root	-3793.30	778.19	-.45	-.32
	AvgUnitLd_F06_Sqr	10.21	3.66	.26	.12
	Select4year06	10.01	2.99	.29	.27

Discussion

The Percentage of Students on Need Based Financial Aid had the greatest impact in this model, and was negatively correlated with Basic Skills Improvement Rate. In general, the higher the percentage on need-based aid at the college, the lower the Basic Skills Improvement Rate for that institution, and vice versa. Keep in mind that these are not causal or explanatory models and that the predictors and outcomes are institution-based rather than individual-based. Thus it would not be valid to infer that students receiving need-based financial aid show less improvement in basic skills courses than those not receiving such aid. The negative correlation between a college's Basic Skills Improvement Rate and its financial aid percentage may indicate that the college serves an area where economic barriers and relative lack of academic preparation could affect students' basic skills course progress.

The correlation between nearest four-year college selectivity (2006), a possible proxy measure of academic preparedness, and Basic Skills Improvement proves more puzzling and may indicate that the selectivity score serves as a moderator or mediator variable in a more complex model that exceeds the scope of the ARCC analysis.

Average unit load is positively correlated with Basic Skills Improvement indicating that colleges with higher average unit loads among their students tend to have higher improvement rates. However, this relationship is weak. For the current model, unit load may be serving as a proxy measure for a more individual-based predictor such as motivation or academic goal, or for a set of predictors in a more complex model.

The relatively low adjusted R^2 for this model suggests the need for additional research to identify additional uncontrollable factors that may help explain basic skills improvement rates. If we can identify such factors, our model will have greater predictive power, which, in turn, will improve the quality of the subsequent peer grouping (by cluster analysis). However, it is possible that the factors that determine this specific outcome

(a) are not measured by our data system or
(b) are predominately characterized as "controllable" factors or
(c) are interacting in ways that we have not adequately tested in the current regression process.

For example, scenario (a) could include factors such as student motivation, student employment, and student family obligations. Scenario (b) could include factors such as highly effective tutoring programs on campus and highly successful placement programs. Scenario (c) could involve the testing of mediating and moderating variables and interactions between predictors. From a policy analysis perspective, the potential for scenario (b) to explain our results implies that an in-depth analysis of basic skills could result in a very productive identification of institutional needs in the area of basic skills success. Naturally, a new study that encompasses both (a) and (b) may be ideal.

References

Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). *Multivariate data analysis*, (6th ed.). New Jersey: Prentice Hall.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Model Summary of the ESL Improvement Rate

Results

The predictors for the English as a Second Language (ESL) Improvement Rate (2005-2006 to 2007-2008) are:

- St_Cnt_F06_Root: The student headcount for Fall 2006, the "middle year" for the ESL improvement cohort. Obtained from the CCCCO MIS. Analysis of this variable indicated a skewed distribution. Thus, we used a square root transformation for the version of this variable included in the regression model.

- Pct_30_F06_Root: The percentage of students age 30 years or older as of Fall 2006, the "middle year" for the ESL improvement cohort. Obtained from the CCCCO MIS. Analysis of this variable indicated a skewed distribution. We used a square root transformation for the version of this variable included in the regression model.

- SpkEngNotWellIndex_Root: The "English Not Spoken Well or Not At All" Index represents the self-rating of ability to speak English of a Census sample in the college's service area. This index, created by CCCCO, combines the enrollment patterns (Fall 2000) of students by ZIP code of residence with English language ability self-ratings data for ZCTA (ZIP Census Tabulation Area) codes obtained from Census 2000. The data used to create this index are based on the percentage of Census respondents who reported that they spoke a language other than English and were then asked to indicate their ability to speak English in one of the following categories: "Very well," "Well," "Not well," or "Not at all." The index includes only those who reported "Not Well" or "Not at all" in the 18 to 64-year old group. We used a square root transformation for the version of this variable included in the regression model.

Table C9 below shows the regression weights for the variables at each step of the hierarchical model, as well as the zero order correlation (Pearson) with the outcome variable for each predictor. The complete model had an adjusted R^2 =.31, $F(3,98) = 16.22$, $p < .001$, with the regression weights for all predictors significant at the .05 level. Based upon the standardized coefficients (beta), the Student Count predictor provides the largest contribution to the model relative to the other variables.

We detected negligible multicollinearity in the final regression model for this outcome and the residuals appeared to be normally distributed.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Table C9: Hierarchical Regression Analysis Summary for ESL Improvement Rate 2005-06 to 2007-08

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	11.52	6.55		
	St_Cnt_F06_Root	.30	.05	.48	.48
2	(Constant)	54.06	15.90		
	St_Cnt_F06_Root	.24	.06	.39	.48
	Pct_30_F06_Root	-62.25	21.35	-.26	-.39
3	(Constant)	38.24	16.72		
	St_Cnt_F06_Root	.23	.05	.36	.48
	Pct_30_F06_Root	-57.52	20.89	-.24	-.39
	SpkEngNotWellIndex_Root	47.94	19.09	.21	.31

Discussion

This regression model indicates that a combination of college size, age of student population, and self-rated English-speaking ability of the population in the college's service area achieved low-to-moderate prediction of ESL improvement rates. Larger college size and higher proportions of those stating that they speak English "Not Well" or "Not At All" were correlated with higher ESL improvement rates. In contrast, the negative correlation between ESL improvement and the percentage of students age 30 years or older indicates that colleges with relatively younger student populations tend to have higher improvement rates.

The student headcount predictor reflects college size. Theory suggests that economies of scale (which benefits larger colleges in comparison to smaller ones) enable larger colleges to have more resources to afford the special student services (i.e., orientation, counseling, and tutoring) that theoretically promote college success – in this case, ESL improvement.

A number of socioeconomic theories might help explain the negative correlation between ESL improvement and colleges with larger percentages of students 30 and over. For example, colleges serving older ESL students might also be located in areas with fewer economic and educational advantages that contribute to academic success.

The English Not Spoken Well or Not At All Index was added for the 2008 ARCC report. This variable continues to contribute to the model and may be a fertile area for exploration beyond the need to select clustering variables for the ARCC peer groups.

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Note: The adjusted R^2 for this year's ESL regression model is considerably lower than the adjusted R^2 from the 2008 ARCC analysis (adjusted R^2 = .31 versus .47). There are several possible explanations for this change, none of which takes precedence or precludes other explanations. First, the colleges' percentages of students age 30 or older replaced last year's BA+ Index as a better predictor in the model. Second, the 2009 model's other predictors remained the same as last year's, but the student count variable was updated to reflect more recent data. Those updates could affect the latest regression model. Third, heteroscedasticity in the residuals for last year's model justified a weighted least squares (WLS) adjustment that contributed to a higher R^2. We did not detect heteroscedasticity this year and did not adjust the data.

Blank page inserted for reproduction purposes only.

Appendix D: Peer Grouping Methodology

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 CCCCO 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 CCCCO 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.

Appendix D: Peer Grouping Methodology

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 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, CCCCO 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.

Appendix D: Peer Grouping Methodology

Cluster Analysis in the ARCC Peer Grouping

CCCCO 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 CCCCO 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 single-college 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 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 kth 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, CCCCO staff used *Ward's method* for clustering because staff found this method to work well with the ARCC data.

Appendix D: Peer Grouping Methodology

According to Bailey (1994), *Ward's method "begins with each objec*t treated as a cluster of one. Then objects are successively combined. The criterion for c*ombination is* that the within-cluster variation as measured by the sum of within-cluster 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 CCCCO 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 = (raw score for a case – mean of the sample) / (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).

References

Anderberg, M.R. (1973). *Cluster analysis for applications*. New York: Academic Press.

Bailey, K.D. (1994). *Typologies and taxonomies: an introduction to classification techniques*. Thousand Oaks, CA: Sage.

Everitt, B.S., Landau, S., and Leese, M. (2001) *Cluster analysis*. New York: Oxford.

Snedecor, G.W., and Cochran, W.G. (1980). *Statistical methods*. Iowa State University Press: Ames, Iowa.

Sokal, R.R., and Sneath, P.H. (1963). *Principles of numerical taxonomy*. Freeman: London.

Blank page inserted for reproduction purposes only.

Appendix E: Terms and Abbreviations

Abbreviation	Definition
AA AS	Associate of Arts Degree Associate of Science Degree An associate degree shall be awarded to any student who successfully completes the prescribed course of study for the degree while maintaining the requisite grade point average, the course of study required for the student's major, and any required academic elective courses. (California Code of Regulations, Title 5, §55800.5)
AB 1417	Assembly Bill (AB) 1417 legislation sponsored by Pacheco, Chapter 581, Statutes of 2004, that established ARCC
Academic Year	For purposes of COMIS this refers to all the terms in one year beginning with the summer term and ending with the spring term (Summer, Fall, Winter, Spring).
ARCC	Accountability Reporting for the Community Colleges, initially established by AB 1417 (Pacheco, Chapter 581, Statutes of 2004)
BA Plus Index	The Bachelor of Arts/Sciences Plus Index represents the bachelor degree attainment of the population, 25 years or older in a college's service area. This index, created by CCCCO, combines the enrollment patterns (Fall 2000) of students by ZIP code of residence with educational data for ZCTA (ZIP Code Tabulation Area) codes obtained from Census 2000.

Appendix E: Terms and Abbreviations

Abbreviation	Definition
BA	Bachelor of Arts Degree For candidates electing, pursuant to Section 40401, to meet graduation requirements established prior to the 2000-01 academic year, the total semester units required for the Bachelor of Arts Degree, of which at least 40 shall be in the upper division credit, shall be 124 semester units. For candidates for the Bachelor of Arts degree who are meeting graduation requirements established during or after the 2000-01 academic year, a minimum of 120 semester units shall be required, including at least 40 semester units in upper-division courses or their equivalent. (California Code of Regulations, Title 5, §40500)
BS	Bachelor of Science Degree For candidates electing, pursuant to Section 40401, to meet graduation requirements established prior to the 2000-01 academic year, the total semester units required for the Bachelor of Science degree shall be 124 to 132 semester units, as determined by each campus, except that 140 semester units may be required in engineering. For candidates for the Bachelor of Science degree who are meeting graduation requirements established during or after the 2000-01 academic year, a minimum of 120 semester units shall be required. (California Code of Regulations, Title 5, §40501)

Appendix E: Terms and Abbreviations

Abbreviation	Definition
Basic Skills	Courses designed to develop reading or writing skills at or below the level required for enrollment in English courses one level below freshman composition, computational skills required in mathematics courses below Algebra, and ESL courses at levels consistent with those defined for English. (Based on a Basic Skills Study Session for the BOG.)
BOG	Board of Governors of the California Community Colleges
CAN	California Articulation Number: System of cross reference numbers designed to identify courses of comparable context
CDCP (Career Development and College Preparation) courses; referred to as Enhanced Noncredit courses (ENC) in the 2008 ARCC Report.	CDCP courses are noncredit courses that receive additional funding. The CDCP programs/sequences of courses are designed to achieve the following outcomes: 1. A noncredit certificate of completion leading to improved employability or job opportunities; 2. A noncredit certificate of competency in a recognized career field articulated with degree applicable coursework, completion of an associate degree, or transfer to a baccalaureate institution. (California Code of Regulations, Title 5, §55151)
CCC	California Community Colleges
CCCCO	California Community Colleges Chancellor's Office (also referred to as the System Office)
Certificate	The governing board of a community college district shall issue a certificate of achievement to any student whom the governing board determines has completed successfully any course of study or curriculum for which a certificate of achievement is offered. (California Code of Regulations, Title 5, §55808)

Appendix E: Terms and Abbreviations

Abbreviation	Definition
CCLC	Community College League of California The non-governmental, non-profit entity that serves community college districts, locally-elected governing boards, and college chief executive officers statewide.
Cohort	For the purpose of this report, we are using the MIS definition of a cohort, which refers to the establishment of a group of records based on specific criteria and tracked over time. Commonly used to refer to a specific set of students such as first-time freshmen who are tracked over a number of years, for example 6 years..
COMIS	Chancellor's Office Management Information System
Course	A series of lectures, labs, or other matter providing instruction on a specific subject
CPEC	California Postsecondary Education Commission
CSU	California State University
DED	Data Element Dictionary. The DED provides all specifications for all data elements collected by the Chancellor's Office and loaded into the COMIS database.
Degree	A degree shall be awarded to any student who successfully completes the prescribed course of study for the degree while maintaining the requisite grade point average, the course of study required for the student's major, and any required academic elective courses. (California Code of Regulations, Title 5, §55809)
Derived Data Elements	A data element that has been modified in programming to achieve some desired end
DOF	Department of Finance, State of California
Domain	The criteria describing the type of records included in a particular report or study.

Appendix E: Terms and Abbreviations

Abbreviation	Definition
EDD	Employment Development Department, State of California
Educational Needs Index (ENI)	The ENI is a county-level index representing the education, economic, and population pressures that influence education policy and planning. It uses fifteen unique indicators collapsed into three factor categories, as well as one measure of relative population size.
Enhanced noncredit courses (ENC)	See Career Development and College Preparation Definition
Enrollment	As used in our report, enrollment refers to one filled seat in a classroom per section.
ESAI	The Economic Service Area Index reflects the economic "composition" of geographic areas from which that college draws its students. This index, created by CCCCO, combines the enrollment patterns (Fall 2000) of students by ZIP code of residence with income data (1999) for ZCTA (ZIP Code Tabulation Area) codes obtained from Census 2000.
ESL	English as a Second Language
Fiscal Year	One year, beginning July 1 and ending June 30
FTES	Full-time equivalent student (FTES) is the major student workload measure, one of several, used in determining the eligibility for state funding of community colleges.
ISP	In-State Private Institution (four-year)
LAO	Legislative Analyst's Office, California's Nonpartisan Fiscal and Policy Advisor

Appendix E: Terms and Abbreviations

Abbreviation	Definition
NSC	National Student Clearinghouse
OOS	Out-of-State Institution (4-year)
Peer Group	In the ARCC, a peer group is the set of community colleges that have common characteristics with respect to a specific performance indicator. R&P staff derived a peer group for each college by indicator through a statistical method called cluster analysis. So each college will have a peer group for each performance indicator in ARCC. The basic objective of our peer grouping is to enable policy makers and administrators to make a relatively equitable and valid evaluation of a college's performance by comparing that performance to the performances of similar institutions.
RP Group	Research and Planning Group for California Community Colleges
R&P	Research and Planning Unit, CCCCO
SAAP	The Student Average Academic Preparation Index, created by CCCCO, measures the student average academic preparation for a particular college. The index was created by a match of Fall 2000 students with Stanford-9 scores from public high school students (1998-1999).
SAM Codes	Student Accountability Model: Codes reflecting the type of course
SAT	Scholastic Assessment Test Standardized test for college admissions in the United States.
Section	An offering of a course
System Office	California Community Colleges Chancellor's Office
Systemwide	All California Community Colleges

Appendix E: Terms and Abbreviations

Abbreviation	Definition
TOP Codes	Taxonomy of Programs: Used for course content as well as program identification. For further information on TOP codes, consult the most recent edition of *The California Community Colleges Taxonomy of Programs*, available at the CCCCO Web site.
Uncontrollable Factors	These are the variables in the ARCC analyses that "level the playing field" in the inter-institutional comparisons of performance (i.e., the peer group tables). People often also refer to these uncontrollable factors as "environmental factors," or "adjustment factors," or "exogenous variables." These factors are the variables that theoretically affect an outcome (i.e., a performance indicator) but fall outside of the control of college administrators. The ARCC analyses identify the most salient uncontrollable factors for each ARCC outcome, and the ARCC peer grouping uses these factors to create comparison groups of colleges that share similar environments. This process to "control" or adjust comparisons for these factors reduces the chance that a particular peer group will lead to a comparison of "apples to oranges."

Appendix E: Terms and Abbreviations

Abbreviation	Definition
Unduplicated Annual Headcount	This is the unique count of students enrolled in the California Community Colleges. Students are only counted once, even if they take courses at different colleges in the same year. (Systemwide definition). At the college level, (Table 1.7 of the College Profile) annual unduplicated headcount is based on students actively enrolled in Summer, Fall, Winter, and/or Spring terms. This headcount includes both credit and noncredit students. A student enrolled in multiple terms was counted only once for the year (i.e., not counted separately for each term). However, because this section of the ARCC report specifically addresses college level demographics, we counted the student at each college where he/she was actively enrolled during that year. For example, if a student enrolled at Yuba College in Summer and Fall 2005 and at American River College in Spring 2006, that student would be counted once at Yuba and once at American River for the 2005-2006 academic year.
UC	University of California
320 Report	Report used by districts to report FTES to CCCCO Fiscal Services

Blank page inserted for reproduction purposes only.

Appendix F: Legislation Summary

2004-05 Final Budget Summary (Chapter 208, Statutes of 2004), September 16, 2004

Summary: The Governor reduced the funding for the Partnership for Excellence program by $31,409,000 to require the Chancellor's Office to produce a new accountability system.

Item 6870-101-0001—For local assistance, Board of Governors of the California Community Colleges (Proposition 98). I reduce this item from $2,810,212,000 to $2,778,803,000 by reducing: (4) 10.10.040-Partnership for Excellence from $225,000,000 to $193,591,000; and by revising Provision 4.

I am reducing this item by reducing the funding for the Partnership for Excellence program by $31,409,000 to maintain the May Revision Proposition 98 spending level for community colleges. Instead, funds were provided to support additional student enrollments and to maintain lower fees for Bachelor degree holders. With this reduction, $193,591,000 will still be available for this program through the general apportionments pursuant to Provision 4(a) of this item. The Legislature reduced the rigor of the accountability structure for this program proposed in the Governor's Budget. Because this program lacks accountability at the district level, it is appropriate that this funding be reduced. However, given my strong commitment to the Community Colleges and the extraordinary work they do in educating over a million full-time equivalent students seeking transfer, technical and basic skills every year, I am willing to restore this funding in the 2005–06 budget provided that district level goals and performance evaluations are incorporated into the accountability structure as had been proposed.

I revise provision 4(a) as follows to conform to this action: ''4. (a) The amount appropriated in Schedule (4) shall be made available to districts in the same manner as the general apportionment funding in Schedule (1), and shall be made available in the same amount provided to each district for the Partnership for Excellence program in the 2003–04 fiscal year, including the funding deferred for this program pursuant to Section 84321 of the Education Code, and notwithstanding the basic aid status of any district. As a condition of receiving these funds, the districts shall first agree to assure that courses related to student needs for transfer, basic skills, and vocational and workforce training are accorded the highest priority and are provided to the maximum extent possible within the budgeted funds.''

Appendix F: Legislation Summary

Assembly Bill 1417, Pacheco (Chapter 581, Statutes of 2004), September 18, 2004

Summary: Assembly Member Pacheco authored the bill that created ARCC.

BILL NUMBER: AB 1417 CHAPTERED
BILL TEXT

CHAPTER 581
FILED WITH SECRETARY OF STATE SEPTEMBER 18, 2004
APPROVED BY GOVERNOR SEPTEMBER 18, 2004
PASSED THE SENATE AUGUST 27, 2004
PASSED THE ASSEMBLY AUGUST 27, 2004
AMENDED IN SENATE AUGUST 23, 2004
AMENDED IN SENATE JANUARY 13, 2004
AMENDED IN SENATE JANUARY 5, 2004
AMENDED IN ASSEMBLY JUNE 4, 2003

INTRODUCED BY Assembly Member Pacheco

FEBRUARY 21, 2003

An act relating to community colleges, making an appropriation therefore, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

AB 1417, Pacheco. Community colleges: funding.
(1) Existing law establishes the California Community Colleges under the administration of the Board of Governors of the California Community Colleges. Existing law authorizes the establishment of community college districts under the administration of community college governing boards, and authorizes these districts to provide instruction at community college campuses throughout the state. An item of the Budget Act of 2004 appropriated, among other amounts, $193,591,000 from the General Fund to the board of governors for allocation to community college districts for general apportionment funding.

This bill would require the board of governors to provide recommendations, based on information to be developed in a study to be conducted by the Chancellor of the California Community Colleges, to the Legislature and the Governor regarding the design of a workable structure for the annual evaluation of district-level performance in meeting statewide educational outcome priorities, including the priorities consistent with the appropriation referenced above.

(2) An item of the Budget Act of 2004 appropriated, among other amounts, $27,345,000 from the General Fund to the board of governors for allocation to community college districts for physical plant and instructional support.

This bill would set forth criteria in accordance with which a community college district could utilize a portion of these funds for the purpose of maintaining prior investments made for program enhancements for student success, provided that the district reports its planned expenditures to the chancellor on or before November 30, 2004, as prescribed.

(3) An item of the Budget Act of 2004 appropriated, among other amounts, $50,828,000 from the General Fund to the board of governors for allocation to community college districts for part-time faculty compensation.

This bill would require that the amount appropriated in the Budget Act of 2004 for allocation to community college districts for part-time faculty compensation be allocated, as prescribed, solely to increase the compensation of part-time faculty from the amounts previously authorized. The bill would prohibit the use of these funds by a district to exceed the achievement of parity of compensation for part-time and full-time faculty in that district. The bill would authorize a district that has achieved parity to use
these funds for any educational purpose.

(4) Because this bill would authorize the expenditure of funds previously appropriated to the board of governors for new purposes, it would make an appropriation.
(5) The bill would declare that it is to take effect immediately as an urgency statute.

Appropriation: yes.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. (a) The Board of Governors of the California Community Colleges shall provide recommendations to the Legislature and the Governor regarding the design of a workable structure for the annual evaluation of district-level performance in meeting statewide educational outcome priorities, including priorities consistent with Provision (4) of Item 6870-101-0001 of Section 2.00 of the Budget Act of 2004. These recommendations shall be based on information and data provided by a study to be completed by the Chancellor of the California Community Colleges, with the input of institutional representatives of community college districts.

(b) In preparing the study referenced in subdivision (a), the Chancellor of the California Community Colleges may, as he or she judges necessary, consult with individuals with demonstrated expertise in higher education accountability and evaluation. The chancellor also shall consult with the Department of Finance and the Legislative Analyst's Office on an ongoing basis during the conduct of the study. The study process shall also afford community college organizations, and interested parties and individuals, the opportunity to review and comment

on the proposed recommendations before their consideration and adoption by the Board of Governors of the California Community Colleges. The board of governors shall provide copies of the study and recommendations on or before March 25, 2005, to the Governor, the fiscal committees of the Legislature, and the higher education policy committees of the Legislature.

SEC. 2. (a) Notwithstanding any other provision of law, this section shall apply only to a community college district that meets either of the following criteria:

(1) The sum of funds allocated to that district from Schedule (1) of, pursuant to Provision (6) of, and from Schedule (3) of, pursuant to subdivision (b) of Provision (10) of, Item 6870-101-0001 of Section 2.00 of the Budget Act of 2004, equals zero.

(2) The amount of the reduction in the district's Partnership for Excellence funds during the 2004-05 fiscal year, divided by the sum of funds allocated to that district from Schedule (1) of, pursuant to Provision (6) of, and from Schedule (3) of, pursuant to subdivision (b) of Provision (10) of, Item 6870-101-0001 of Section 2.00 of the Budget Act of 2004, exceeds 50 percent.

(b) A district meeting the criteria in subdivision (a) may use all or a portion of the funds allocated to that district from Schedule (19) of Item 6870-101-0001 of Section 2.00 of the Budget Act of 2004 for the purpose of maintaining prior investments made for program enhancements for student success that otherwise would be jeopardized by the reduction in Partnership for Excellence funding, notwithstanding any other restriction upon the use of these funds. In no event may the amount of funds used by an applicable district for maintaining program enhancements exceed the amount of the reduction in Partnership for Excellence allocations realized by the district in the 2004-05 fiscal year.

(c) As a condition of utilizing the flexibility authorized by this section, each participating community college district shall report to the chancellor on its planned expenditures from Schedule (19) of Item 6870-101-0001 of Section 2.00 of the Budget Act of 2004 on or before November 30, 2004, in a format prescribed by the chancellor. The chancellor shall provide a summary report of these planned expenditures to the Governor, the Director of Finance, and the fiscal committees of the Legislature on or before December 31, 2004.

SEC. 3. (a) The funds allocated in Schedule (14) of Item 6870-101-0001 of Section 2.00 of the Budget Act of 2004 shall be allocated solely to increase the compensation of part-time faculty from the amounts previously authorized. These funds shall be distributed to community college districts based on the total of actual full-time equivalent students served in the previous fiscal year, and shall include a small district factor as determined by the chancellor. These funds shall be used to assist districts in making part-time faculty salaries more comparable to full-time salaries for similar work, as determined through each district's local collective bargaining process.

(b) The funds shall not supplant the amount of resources each district uses to compensate part-time faculty, and shall not be used to exceed the achievement of parity in compensation for each part-time faculty employed by each district with regular full-time faculty of that district, as certified by the chancellor. If a district has achieved parity, its allocation under Schedule (14) of Item 6870-101-0001 of Section 2.00 of the Budget Act of 2004 may be used for any other educational purpose.

SEC. 4. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting the necessity are:

In order to implement, in a timely fashion, a necessary revision to the community college funding priorities adopted pursuant to the Budget Act of 2004, it is necessary that this act take effect immediately.

Appendix F: Legislation Summary

Budget Act of 2005 (AB 90), May 27, 2005

Summary: The Budget Act of 2005 provided four positions to the Chancellor's Office to support ARCC.

6870-001-0001—For support of Board of Governors of the California Community Colleges..... ~~8,814,000~~ *9,231,000*
Schedule:
(1) 10-Apportionments..... 853,000
(2) 20-Special Services and Operations..... ~~15,343,000~~ *15,760,000*
(3) 30.01-Administration..... 4,088,000
(4) 30.02-Administration—Distributed..... - 4,088,000
(5) 97.20.001-Unallocated Reduction..... - 137,000
(6) Reimbursements..... - 7,245,000

Provisions:
1. Funds appropriated in this item may be expended or encumbered to make one or more payments under a personal services contract of a visiting educator pursuant to Section 19050.8 of the Government Code, a long-term special consultant services contract, or an employment contract between an entity that is not a state agency and a person who is under the direct or daily supervision of a state agency, only if all of the following conditions are met:

(a) The person providing service under the contract provides full financial disclosure to the Fair Political Practices Commission in accordance with the rules and regulations of the commission.
(b) The service provided under the contract does not result in the displacement of any represented civil service employee.
(c) The rate of compensation for salary and health benefits for the person providing service under the contract does not exceed by more than 10 percent the current rate of compensation for salary and health benefits determined by the Department of Personnel Administration for civil service personnel in a comparable position. The payment of any other compensation or any reimbursement for travel or per diem expenses shall be in accordance with the State Administrative Manual and the rules and regulations of the Department of Personnel Administration.
(d) Of the amount appropriated in this item, $417,000 is appropriated for four positions to support workload associated with a district specific accountability program. These positions are contingent upon the enactment of legislation in the 2005-06 Regular Session that establishes a program for district specific reporting and evaluation of educational outcomes in response to Chapter 581 of the Statutes of 2004. It is intended that the first report for the district-specific accountability system be provided in January 2007, reflecting outcomes from the 2005-06 fiscal year in context as specified in the enacted legislation.

Appendix F: Legislation Summary

Senate Bill 63, Chapter 73, Committee on Budget and Fiscal Review, July 19, 2005

Summary: SB 63 added on a trailer bill that specified ARCC's requirements.

Senate Bill No. 63
CHAPTER 73

An act to amend Sections 2558.46, 8484.7, 8484.8, 41203.1, 42238.146, 44219, 44227, 44244, 52055.600, 52055.605, 52055.610, 52055.650, 52058, 56504.5, 56836.11, 56836.155, 56836.165, and 69522 of, to add Sections 44242.3 and 84754.5 to, and to add Article 5.6 (commencing with Section 69616) to Chapter 2 of Part 42 of, the Education Code, to amend Section 17581.5 of the Government Code, to amend Section 1529.2 of the Health and Safety Code, to amend Section 270 of the Public Utilities Code, and to amend Section 903.7 of the Welfare and Institutions Code, relating to education finance, making an appropriation therefore, and declaring the urgency thereof, to take effect immediately.

[Approved by Governor July 19, 2005. Filed with Secretary of State July 19, 2005.]

SB 63, Committee on Budget and Fiscal Review. Education finance.

[Selection from the Legislative Counsel's Digest]

(19) Existing law authorizes the establishment of community college districts under the administration of community college governing boards, and authorizes these districts to provide instruction at community college campuses throughout the state. An item of the Budget Act of 2004 appropriated, among other amounts, $193,591,000 from the General Fund to the board of governors for allocation to community college districts for general apportionment funding. Existing law requires the board of governors to provide recommendations, based on information to be developed in a study to be conducted by the Chancellor of the California Community Colleges, to the Legislature and the Governor regarding the design of a workable structure for the annual evaluation of district-level performance in meeting statewide educational outcome priorities, including the priorities consistent with the appropriation referenced above.

This bill would require that, as a condition of receiving specified funds in the annual Budget Act to encourage district-level accountability efforts, community college districts provide data, in a format and according to a schedule to be specified by the chancellor's office, for the purpose of an annual report that the bill would require the chancellor to provide to the Legislature, the Governor, the Department of Finance, and the Office of the Legislative Analyst. This data would also be provided for purposes of providing the means for both internal and external assessment of the district's educational offerings in meeting the high-priority educational goals of the state. The bill would authorize the chancellor to withhold, delay, or reduce specified funds provided in the annual Budget Act to encourage district-level accountability efforts.

Appendix F: Legislation Summary

SEC. 21. Section 84754.5 is added to the Education Code, to read: 84754.5. Pursuant to provisions of Chapter 581 of the Statutes of 2004, the board of governors provided the Governor and the Legislature recommendations regarding the design of a workable structure for the annual evaluation of district-level performance in meeting statewide educational outcome priorities. The Legislature recognizes that these recommendations were based on a study process that included input from institutional representatives of community college districts, nationally regarded experts in community college accountability, the Department of Finance, the Office of the Legislative Analyst, community college organizations, and other interested parties. In enacting this section the
Legislature hereby establishes a program for the annual reporting and evaluation of district-level performance in achieving priority educational outcomes consistent with the intent of Chapter 581 of the Statutes of 2004.

The program includes the following components:
(a) As a condition of receiving specified funds in the annual Budget Act to encourage district-level accountability efforts, community college districts shall provide data, in a format and according to a schedule to be specified by the Office of the Chancellor of the California Community Colleges, for the purpose of the annual report to the Legislature specified in subdivision (b) and for purposes of providing the means for both internal and external assessment of the district's educational offerings in meeting the high-priority educational goals of the state. The chancellor shall withhold, delay, or reduce funds specified in the annual Budget Act to encourage district-level accountability efforts from a district that fails to provide needed data by specified deadlines. If a district's failure to report by specified deadlines results in the omission of required data from, or inclusion of erroneous data in, the annual report required by subdivision (b), the chancellor shall reduce that district's funding as specified in regulations for the implementation of this section.

(b) With data available through its management information system and other data provided pursuant to subdivision (a), and utilizing resources provided for this purpose in the annual Budget Act, the chancellor shall prepare an annual report to the Legislature, the Governor, the Department of Finance, and the Office of the Legislative Analyst evaluating the achievement of educational outcomes for each community college district and, as warranted, each college. This report shall be provided to the Legislature annually on or before March 31, beginning in 2007. Preliminary data reported from the districts shall be provided to the Department of Finance and the Office of the Legislative Analyst by January 31 of each year, beginning in 2007. For each district, and college as warranted, the report shall: (1) include performance data for the immediately preceding fiscal year, reflecting all measures specified in subdivision (c); (2) compare each district's and college's achievement with peer groups within the system as applicable to specific metrics; and (3) compare each district's and college's achievements with that of the system as a whole. The report shall further include a profile with summary background information on each district's or college's educational programs, missions, students, and service area demographics.

Appendix F: Legislation Summary

(c) (1) The report shall include, but not be limited to, district or college-level performance on outcome measures in the following categories:
(A) Student progress and achievement: degrees, certificates, and transfers.
(B) Student progress and achievement: vocational, occupational, and workforce development.
(C) Pre-collegiate improvement, including basic skills and English-as-a-second language.

(2) The specific measures to be included in the report shall reflect the April 2005 board of governors recommendations as refined and amended in consultation with the Department of Finance and the Office of the Legislative Analyst, and shall be periodically reviewed, in consultation with the Department of Finance and the Office of the Legislative Analyst, and, if necessary, modified by the chancellor. It is the intent of the Legislature that specific performance metrics and annual reporting requirements may be specified in annual Budget Acts, if warranted, by changes in state needs, legislative priorities, or the availability of data.

(d) As a condition of receiving specified funds in the annual Budget Act, each community college district board of trustees shall annually review and adopt its contribution to the segmentwide annual report as part of a regularly scheduled and noticed public meeting at which public comment shall be invited.

(e) The board of governors shall adopt regulations that it deems necessary to carry out this section no sooner than 30 days after notification in writing by the chancellor to the Director of Finance and the Chairperson of the Joint Legislative Budget Committee.

Appendix F: Legislation Summary

Senate Bill 361, Chapter 631, Statutes of 2006, September 29, 2006

Summary: SB 361 requires the Chancellor's Office to develop specific outcome measures for career development and college preparation courses.

BILL NUMBER: SB 361 CHAPTERED
BILL TEXT

CHAPTER 631
FILED WITH SECRETARY OF STATE SEPTEMBER 29, 2006
APPROVED BY GOVERNOR SEPTEMBER 29, 2006
PASSED THE SENATE AUGUST 29, 2006
PASSED THE ASSEMBLY AUGUST 23, 2006
AMENDED IN ASSEMBLY AUGUST 21, 2006
AMENDED IN ASSEMBLY AUGUST 10, 2006
AMENDED IN ASSEMBLY JUNE 15, 2006
AMENDED IN ASSEMBLY JULY 13, 2005
AMENDED IN ASSEMBLY JUNE 29, 2005
AMENDED IN SENATE APRIL 5, 2005

INTRODUCED BY Senator Scott
(Principal coauthor: Senator Runner)
(Principal coauthor: Assembly Member Laird)

FEBRUARY 17, 2005

An act to amend and repeal Sections 84750 and 84760 of, and to add Sections 84750.5 and 84760.5 to, the Education Code, relating to community colleges, and declaring the urgency thereof, to take effect immediately.

[Excerpt of SB 361 follows]

SEC. 4. Section 84760.5 is added to the Education Code, to read:
84760.5. (a) For purposes of this chapter, the following career development and college preparation courses and classes for which no credit is given, and that are offered in a sequence of courses leading to a certificate of completion, that lead to improved employability or job placement opportunities, or to a certificate of competency in a recognized career field by articulating with college-level coursework, completion of an associate of arts degree, or for transfer to a four-year degree program, shall be eligible for funding subject to subdivision (b):

(1) Classes and courses in elementary and secondary basic skills.
(2) Classes and courses for students, eligible for educational services in workforce preparation classes, in the basic skills of speaking, listening, reading, writing, mathematics, decision-making,

and problem solving skills that are necessary to participate in job-specific technical training.
(3) Short-term vocational programs with high employment potential, as determined by the chancellor in consultation with the Employment Development Department utilizing job demand data provided by that department.
(4) Classes and courses in English as a second language and vocational English as a second language.

(b) The board of governors shall adopt criteria and standards for the identification of career development and college preparation courses and the eligibility of these courses for funding, including the definition of courses eligible for funding pursuant to subdivision (a). The criteria and standards shall be based on recommendations from the chancellor, the statewide academic senate, and the statewide association of chief instructional officers. The career and college preparation courses to be identified for this higher rate of funding should include suitable courses that meet one or more of the qualifications described in subdivision (a).
(c) A district that offers courses described in subdivision (a), but that is not eligible for funding under subdivision (b), shall be eligible for funding under Section 84757.
(d) The chancellor, in consultation with the Department of Finance and the Office of the Legislative Analyst, shall develop specific outcome measures for career development and college preparation courses for incorporation into the annual report required by subdivision (b) of Section 84754.5.
(e) The chancellor shall prepare and submit to the Department of Finance and the Legislature, on or before March 1, 2007, and March 1 of each year thereafter, a report that details, at a minimum, the following:

(1) The amount of FTES claimed by each community college district for career development and college preparation courses and classes.
(2) The specific certificate programs and course titles of career development and college preparation courses and classes receiving additional funding pursuant to this section, as well as the number of those courses and classes receiving additional funding.

SEC. 5. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting the necessity are:

In order to allocate funds appropriated in the Budget Act of 2006 to community college districts for the 2006-07 academic year, which has already commenced, in a manner that is consistent with the community college funding reforms made by this act, and in order for the districts to incorporate these allocations, as soon as is feasible, into their operating budgets, it is necessary that this act take effect immediately.

Appendix F: Legislation Summary

Assembly Bill 798, Chapter 272, Statutes of 2007, October 5, 2007

Summary: AB 798 amends the Unemployment Insurance Code to allow the Employment Development Department to perform a wage match for ARCC.

BILL NUMBER: AB 798 CHAPTERED
BILL TEXT

CHAPTER 272
FILED WITH SECRETARY OF STATE OCTOBER 5, 2007
APPROVED BY GOVERNOR OCTOBER 5, 2007
PASSED THE SENATE SEPTEMBER 5, 2007
PASSED THE ASSEMBLY SEPTEMBER 7, 2007
AMENDED IN SENATE AUGUST 21, 2007
AMENDED IN SENATE JULY 18, 2007
AMENDED IN SENATE JUNE 20, 2007

INTRODUCED BY Committee on Insurance Coto (Chair), Benoit (Vice Chair), Berg, Carter, De Leon, Duvall, Garrick, and Parra)

FEBRUARY 22, 2007

An act to amend Sections 1095 and 1281 of the Unemployment Insurance Code, relating to unemployment insurance.

[Excerpt of AB 798 follows]

(y) To enable the Chancellor of the California Community Colleges, in accordance with the requirements of Section 84754.5 of the Education Code, to obtain quarterly wage data, commencing January 1, 1993, on students who have attended one or more community colleges, to assess the impact of education on the employment and earnings of students, to conduct the annual evaluation of district-level and individual college performance in achieving priority educational outcomes, and to submit the required reports to the Legislature and Governor. The information shall be provided to the extent permitted by federal statutes and regulations.

Blank page inserted for reproduction purposes only.

Appendix G: Record of Interactions by Boards of Trustees

As required by Education Code 84754.5(d) (Pursuant to provisions of Chapter 581 of the Statutes of 2004), the California Community College Chancellor's Office provides below a summary of the presentation dates of the 2011 ARCC report to the colleges' boards of trustees. This documents the Chancellor Office's fulfillment of the above requirement for the 2011 ARCC Report.

	College Name	Date of College Presentation to its Board of Trustees	Date When Documentation Received by the CCC Chancellor's Office
1	Allan Hancock College	6/21/11	7/15/11
2	American River College	3/12/11	3/30/11
3	Antelope Valley College	7/11/11	3/1/12
4	Bakersfield College	4/14/11	10/18/11
5	Barstow Community College	1/11/12	1/17/12
6	Berkeley City College	2/14/12	3/6/12
7	Butte College	7/13/11	2/27/12
8	Cabrillo College	6/13/11	3/16/12
9	Canada College	12/14/11	1/24/12
10	Cerritos College	1/18/12	1/24/12
11	Cerro Coso Community College	4/14/11	10/18/11
12	Chabot College	10/4/11	12/23/11
13	Chaffey College	4/27/11	1/25/12
14	Citrus College	5/17/11	11/3/11
15	City College of San Francisco	2/23/12	3/13/12
16	Coastline Community College	3/7/12	3/13/12
17	College of Alameda	2/14/12	3/6/12
18	College of Marin	4/19/11	5/19/11
19	College of San Mateo	12/14/11	1/24/12
20	College of the Canyons	2/22/12	3/15/12
21	College of the Desert	12/16/11	1/24/12
22	College of the Redwoods	2/7/12	2/21/12
23	College of the Sequoias	*	*
24	College of the Siskiyous	5/3/11	3/1/12
25	Columbia College	12/14/11	1/17/12
26	Compton Community Educational Center	5/10/11	6/10/11
27	Contra Costa College	11/9/11	12/13/11
28	Copper Mountain College	2/9/12	3/9/12
29	Cosumnes River College	3/12/11	3/30/11
30	Crafton Hills College	2/9/12	2/23/12
31	Cuesta College	3/7/12	3/15/12
32	Cuyamaca College	5/17/11	2/7/12
33	Cypress College	11/8/11	3/1/12
34	DeAnza College	8/29/11	2/8/12
35	Diablo Valley College	11/9/11	12/13/11
36	East Los Angeles College	9/21/11	11/22/11
37	El Camino College	5/16/11	6/10/11
38	Evergreen Valley College	2/28/12	3/9/12
39	Feather River College	2/16/12	3/2/12

Note: - (*) Present to the Board of Trustees in April 2012

Appendix G: Record of Interactions by Boards of Trustees

	College Name	Date of College Presentation to its Board of Trustees	Date When Documentation Received by the CCC Chancellor's Office
40	Folsom Lake College	3/12/11	3/30/11
41	Foothill College	8/29/11	2/8/12
42	Fresno City College	4/5/11	5/6/11
43	Fullerton College	11/8/11	3/2/12
44	Gavilan College	*	*
45	Glendale Community College	1/17/12	2/27/12
46	Golden West College	3/7/12	3/13/12
47	Grossmont College	5/17/11	2/7/12
48	Hartnell College	*	*
49	Imperial Valley College	10/19/11	11/14/11
50	Irvine Valley College	11/16/11	12/12/11
51	Lake Tahoe Community College	7/12/11	2/7/12
52	Laney College	2/14/12	3/6/12
53	Las Positas College	10/4/11	12/23/11
54	Lassen College	3/13/12	3/14/12
55	Long Beach City College	7/26/11	12/19/11
56	Los Angeles City College	9/21/11	11/22/11
57	Los Angeles Harbor College	9/21/11	11/22/11
58	Los Angeles Mission College	9/21/11	11/22/11
59	Los Angeles Pierce College	9/21/11	11/22/11
60	Los Angeles Southwest College	9/21/11	11/22/11
61	Los Angeles Trade-Technical College	9/21/11	11/22/11
62	Los Angeles Valley College	9/21/11	11/22/11
63	Los Medanos College	11/9/11	12/13/11
64	Marin Community Education	N/A	N/A
65	Mendocino College	5/4/11	6/7/11
66	Merced College	3/1/11	12/2/11
67	Merritt College	2/14/12	3/6/12
68	MiraCosta College	2/21/12	3/14/12
69	Mission College	4/5/11	5/26/11
70	Modesto Junior College	11/9/11	1/5/12
71	Monterey Peninsula College	3/22/11	4/18/11
72	Moorpark College	2/14/12	3/14/12
73	Mt. San Antonio College	6/22/11	1/5/12
74	Mt. San Jacinto College	11/10/11	1/25/12
75	Napa Valley College	12/7/11	1/20/12
76	North Orange School of Continuing Education	11/8/11	3/1/12
77	Ohlone College	3/9/11	4/18/11
78	Orange Coast College	3/7/12	3/13/12
79	Oxnard College	2/14/12	3/14/12

Note: - (*) Present to the Board of Trustees in April 2012
- (N/A) Marin Community Education no longer exists as a separate entity.

Appendix G: Record of Interactions by Boards of Trustees

	College Name	Date of College Presentation to its Board of Trustees	Date When Documentation Received by the CCC Chancellor's Office
80	Palo Verde College	2/28/12	1/3/12
81	Palomar College	4/26/11	2/27/12
82	Pasadena City College	5/18/11	2/27/12
83	Porterville College	4/14/11	10/18/11
84	Rancho Santiago Continuing Education Division	1/17/12	2/8/12
85	Reedley College	4/5/11	5/6/11
86	Rio Hondo College	7/29/11	1/24/12
87	Riverside Community College	4/5/11	6/7/11
88	Sacramento City College	3/12/11	3/30/11
89	Saddleback College	11/16/11	12/12/11
90	San Bernardino Valley College	2/9/12	2/23/12
91	San Diego City College	11/10/11	12/14/11
92	San Diego Continuing Education Division	11/10/11	12/14/11
93	San Diego Mesa College	11/10/11	12/14/11
94	San Diego Miramar College	11/10/11	12/14/11
95	San Francisco Continuing Education	2/23/12	3/13/12
96	San Joaquin Delta College	4/5/11	2/20/12
97	San Jose City College	2/28/12	3/9/12
98	Santa Ana College	1/17/12	2/8/12
99	Santa Barbara City College	2/9/12	3/15/12
100	Santa Barbara Continuing Education Division	2/9/12	3/15/12
101	Santa Monica College	11/1/11	11/9/11
102	Santa Rosa Junior College	3/8/11	6/20/11
103	Santiago Canyon College	1/17/12	2/8/12
104	Shasta College	4/13/11	5/13/11
105	Sierra College	7/12/11	8/19/11
106	Skyline College	12/14/11	1/24/12
107	Solano Community College	2/15/12	3/9/12
108	Southwestern College	3/14/12	3/15/12
109	Taft College	3/8/12	3/14/12
110	Ventura College	2/14/12	3/14/12
111	Victor Valley College	10/11/11	2/27/12
112	West Hills College-Coalinga	7/26/11	2/21/12
113	West Hills College-Lemoore	7/26/11	2/21/12
114	West Los Angeles College	9/21/11	11/22/11
115	Woodland Community College	6/8/11	8/11/11
116	West Valley College	4/5/11	5/26/11
117	Yuba College	7/13/11	3/2/12

Blank page inserted for reproduction purposes only.

Appendix H: Acknowledgements

We would like to acknowledge the following individuals who contributed their knowledge and time towards creating the ARCC report.

Representatives from the Research and Planning Group for California Community Colleges (RP Group) developed the initial framework.

Research and Planning Group/Center for Student Success
Panel for California Community College Performance Framework Study

Judith A. Beachler, Cosumnes River College
Robert Gabriner, City College of San Francisco
Craig Hayward, Cabrillo College
Kenneth Meehan, Fullerton College
Brad C. Phillips, Cal-PASS
Andreea M. Serban, South Orange County Community College District
Patrick Perry, Chancellor's Office
Willard Hom, Chancellor's Office

After the RP Group met to develop the initial accountability framework, the Chancellor's Office obtained feedback from an external panel of nationwide researchers.

External Panel for California Community College Performance Framework Study

Trudy Bers, Oakton Community College, Illinois
Joseph Burke, State University of New York
Peter Ewell, National Center for Higher Education Management Systems
Andrew M. Gill, California State University, Fullerton
James Jacobs, Columbia University

Appendix H: Acknowledgements

The Chancellor's Office began the ARCC Technical Advisory Workgroup (TAG) in the fall of 2005. The ARCC TAG helped to refine the metrics and format for the ARCC report. The ARCC TAG included representatives from the community colleges, state government, and the Chancellor's Office.

ARCC Technical Advisory Workgroup
(Participants since 2008 who were external to the Chancellor's Office, listed alphabetically)
Michelle Barton, Palomar College
Steve Boilard, Legislative Analyst's Office (California)
Jim Fillpot, Chaffey College
Janet Fulks, Bakersfield College
Anna Garza, North Orange Community College District
Ed Hanson, California Department of Finance
Craig Hayward, Cabrillo College
Robert Johnstone, Skyline College
Edward Karpp, Glendale Community College
Jonathan Lee, California Department of Finance
Jannie Mackay, Long Beach City College
Jean-Marie McKinney, California Department of Finance
Wim McSpadden, Butte-Glenn Community College District
Kenneth Meehan, Fullerton College
Bill Scroggins, College of the Sequoias
Paul Steenhausen, Legislative Analyst's Office (California)
Thomas Todd, California Department of Finance

The Chancellor's Office produced the 2012 ARCC report with the contributions from the following individuals.

CCCCO, Technology, Research & Information Systems Staff (listed alphabetically)
Mei Cooc
LeAnn Fong-Batkin
Debbie Gutierrez
Willard Hom
Myrna Huffman
Catharine Liddicoat
Tonia Lu
Phuong Nguyen
Tom Nobert
Patrick Perry
Alice van Ommeren

Foundation for California Community Colleges Staff
Bryan Miller (graphic design)