

Focus On Results: Customized College Version

Accountability
Reporting for the
Community
Colleges

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



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March 31, 2008

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Appendices can be found in the full copy of the ARCC report at:

http://www.cccco.edu/Portals/4/TRIS/research/ARCC/arcc_2008_final.pdf

Preface to the Customized Edition of the 2008 ARCC Report

In response to requests for a brief document that presents the most relevant information for a specific college in the ARCC report, the System Office has created this customized version of the *Focus on Results: 2008 Accountability Reporting for the Community Colleges (ARCC)* report. This version includes content from the full version of the ARCC report beginning with the Systemwide Indicators through the specific college's data, including college performance indicators, the college's profile, peer grouping and the college's self-assessment. This edition omits the appendices and the pages presenting information specific to other colleges. If readers need to refer to any of the appendices or to any of the information regarding other specific colleges, they can access them along with the full ARCC report at:

http://www.cccco.edu/Portals/4/TRIS/research/ARCC/arcc_2008_final.pdf

Research staff people in the System Office who worked on the 2008 ARCC report include (in alphabetical order) LeAnn Fong-Batkin, Willard Hom, Catharine Liddicoat, and Alice van Ommeren. MIS staff people (data management staff) who worked on this report include (in alphabetical order) Myma Huffman, Tonia Lu, Tom Nobert, and Gale Perez. Vice Chancellor Patrick Perry (Technology, Research & Information Systems Division) supervised the project.

If you have any questions about this report, please e-mail us at arcc@cccco.edu.

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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 System Office (CCCCSO) to design and implement a performance measurement system that contained performance indicators for the system and its colleges. As per Legislative intent, the CCCSO 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 CCCSO to test innovative ideas about performance measurement and to use a massive state database, the CCCSO completed the 2007 ARCC report as a pilot report for the Legislature. The 2008 ARCC report builds upon the 2007 pilot report through various improvements in data quality, a new year of data, and the piloting of a new performance indicator for noncredit coursework.

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:

- Community college students who earned a vocational degree or certificate saw their wages jump from \$25,600 (for the last year before receipt of the award) to \$47,571 three years after earning their degree, an increase of 86%.
- A large number of Californians access and use the CCC system; participation rates are high, with 67 out of every 1,000 people in the state enrolled in a CCC in 2006-2007.
- The system enrolls more than one-third of all 18-19 year olds in California, with participation rates of 359.9 per 1,000 for 2006-2007.
- In 2006-2007, the system transferred nearly 99,000 students. The California State University (CSU) system continues as the most frequent transfer destination for community college students with the enrollment of 54,391 students from the community colleges. Nearly 14,000 community college students enrolled in the University of California (UC) system, the state's most selective public higher education system. This figure continues a four-year trend of increasing transfers to the UC system.
- Transfers to in-state-private institutions and all out-of-state institutions account for 18,752 and 11,825 transfers in 2006-2007, respectively.

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- In 2006-2007, the system contributed to the state's critical health care labor force, as more than 7,700 students earned degrees or certificates in nursing.
- The system's contribution in 2006-2007 to the state's workforce included more than 65,000 associate degrees and certificates in vocational/occupational areas.

College Level Performance

The bulk of the ARCC report covers each college's performance on seven critical indicators. An eighth indicator, which deals with courses that qualify for Enhanced Noncredit funding, is a prototype here for the final indicator that will appear in the 2009 ARCC report.

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 CCCSO 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	51.2%
2. Completed 30 or More Units	70.4%
3. Fall to Fall Persistence	68.3%
4. Vocational Course Completion	78.2%
5. Basic Skills Course Completion	60.5%
6. Basic Skills Course Improvement	50.0%
7. ESL Course Improvement	44.7%

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

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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 CCCSO by March 31, 2009, documentation of interaction by each local board of trustees with the 2008 ARCC report.

Conclusion

This second 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. All of the state's community colleges have already shared the 2007 report with their own local board of trustees, as required by law, and many college administrations have subsequently begun analyses to leverage the data and findings in the ARCC project. With this second report, the ARCC project continues to further the state's mission in higher education by enabling and prompting college efforts to promote student success.

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Introduction to the 2008 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 System Office (CCCSO) will produce this report each year and disseminate it so that each college will share it with its local board of trustees. The System 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. As a result, the legislative mandate specifies that each college has one year in which to interact with its board of trustees with respect to this report. Appendix G of this report documents the system's complete fulfillment of this requirement for the 2007 ARCC Report.

In comparison to the 2007 report, the 2008 report adds an eighth performance indicator to the college level indicators. Readers will observe that the 2008 report now includes coverage of noncredit courses as required by Senate Bill 361 (Scott, Statutes of 2006, Chapter 631). However, this coverage of noncredit outcomes only extends across courses designated as part of the "Enhanced Noncredit" funding. Because each college had the option to apply for this special funding, only a fraction of the colleges will appear with data for this new performance indicator. Furthermore, the 2008 report has college peer grouping for the ESL (English as a Second Language) improvement indicator. The pilot status of the 2007 data for ESL prevented us from creating a peer group comparison for ESL in the 2007 report.

This report 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 System Office. In Appendix H we list the individuals who played these important roles in helping to formulate the ARCC.

How to Use This Report

We acknowledge that a variety of people will see this report, and we recognize that these 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

Introduction to the 2008 ARCC Report

(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.

Readers should avoid comparing the results in the 2008 report to those shown in the 2007 report. The 2007 report acted as a pilot for the 2008 report, and the 2008 report uses recently corrected data from the colleges. Some of the data corrections resulted from the system's project to improve data quality (known as Curriculum Reporting for the Community Colleges, or CRCC). Other data changes have occurred, such as data resubmissions by individual colleges, and the array of data amendments since the 2007 report really makes it unproductive to compare the two reports.

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. For each performance indicator, 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

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peer group identification. Because the data from the colleges may have changed since the analysis shown in the 2007 report, colleges may fall into new peer groups in this report. The preliminary nature of the new indicator for Enhanced Noncredit courses compels us to omit college peer-grouping for this indicator. We believe that the data for the 2009 report will have higher quality and completeness than the pilot data that were available for the 2008 report.

The sixth page for a college shows that college's own self-assessment, and this brief statement from the college administration may note, among other things, unique factors that our statistical analysis may have missed. Therefore, readers should carefully review this self-assessment because it may help to explain the performance figures for a college. Please note that these self-assessments could not cover any tabulation of the pilot data for courses involved with Enhanced Noncredit funding because these tables were unavailable at the time that the colleges produced their self-assessments. Obviously, the six schools of continuing education in our system could not produce any text for self-assessment because the only performance indicator we have for them is success in Enhanced Noncredit.

The best use of this report will require 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 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.

Readers should also note that the report refers to the System Office (abbreviated as CCCSO) and to the Chancellor's Office (abbreviated as CCCCO). These titles represent one and the same entity, and staff people have been using the two titles interchangeably in their communications.

Additional information about ARCC is available at the following 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.

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ARCC 2008 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 2008 ARCC report present results, where available by January 2008, for the seven performance indicators chosen for **systemwide** accountability reporting. These performance indicators are 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 total personal income as a result of receiving a vocational degree/certificate
6. The annual number of basic skills improvements
7. Systemwide participation rates (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. Further, these time periods have changed since the 2007 ARCC report, so it is especially important to check the dates for each table or figure.

The presentation of income trend data in this 2008 ARCC report differs from the presentation in the 2007 report, although the data have not changed. We have reformatted the separate pages for figures 6, 7, and 8 from the 2007 report as a single page of figures (Figures 6a, 6b, and 6c) in the 2008 report. This reformatting allows for easier comparison across student cohorts. Wage data for these trend lines are now included as Tables 12a, 12b, and 12c.

An Introduction to the Systemwide Indicators

The wage data presented in Figures 6a to 6c and Tables 12a to 12c are the same data used in the final 2007 ARCC report. Concern about the confidentiality of wage data at the California Employment Development Department (EDD) increased the department's sensitivity to releasing these data. Thus, we were unable to obtain the most recent wage data in time to include them in the 2008 ARCC report. We have worked with the EDD (via legislation) to resolve this issue for future ARCC reports.

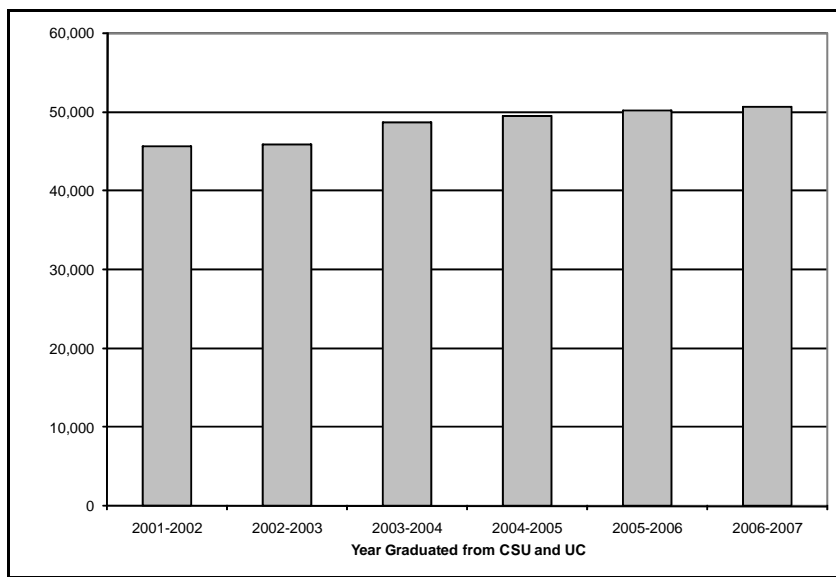
Note that these systemwide indicators are not simply statewide aggregations of the college level indicators presented elsewhere in this report. Some systemwide indicators cannot be broken down to a college level or do not make sense when evaluated on a college level. For example, students may transfer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

ARCC 2008 Report: Systemwide Indicators

Student Progress and Achievement: Degree/Certificate/Transfer

Figure 1:

Annual Number of California State University (CSU) and University of California (UC) Baccalaureate Students from 2001-2002 to 2006-2007 Who Attended a California Community College (CCC)



Year Graduated From CSU or UC

Table 1:

Annual Number of California State University (CSU) and University of California (UC) Baccalaureate Students from 2001-2002 to 2006-2007 Who Attended a California Community College (CCC)

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Total BA/BS (CSU & UC)	96,179	98,837	104,320	107,630	110,990	112,464
Total Who Attended CCC	45,641	45,826	48,657	49,439	50,248	50,611
CSU and UC Percent	47.5%	46.4%	46.6%	45.9%	45.3%	45.0%

Table 2:

Annual Number and Percentage of CSU Baccalaureate Students from 2001-2002 to 2006-2007 Who Attended a CCC

Year Graduated From CSU

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Total BA/BS from CSU	61,463	61,712	65,741	66,768	69,350	70,877
Total Who Attended CCC	35,792	35,315	37,329	37,316	38,365	38,827
CSU Percent	58.2%	57.2%	56.8%	55.9%	55.3%	54.8%

Table 3:

Annual Number and Percentage of UC Baccalaureate Students from 2001-2002 to 2006-2007 Who Attended a CCC

Year Graduated From UC

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Total BA/BS from UC	34,716	37,125	38,579	40,862	41,640	41,587
Total Who Attended CCC	9,849	10,511	11,328	12,123	11,883	11,784
UC Percent	28.4%	28.3%	29.4%	29.7%	28.5%	28.3%

Results:

Figure 1 presents an increasing six-year trend of the annual number of California State University (CSU) and University of California (UC) baccalaureate students who attended a California Community College (CCC). Table 1 shows the number of CSU and UC baccalaureate students, and of those, the total who attended a CCC. The table also reflects the percentage of graduates who originally attended a CCC across the six-year period. The percentage slightly decreases over time beginning in 2003-2004. Table 2 displays the annual number and percentage of CSU students and Table 3 portrays the UC students.



ARCC 2008 Report: Systemwide Indicators

Student Progress and Achievement: Degree/Certificate/Transfer

Figure 2:
Annual Number of California Community College
Transfers to Four-Year Institutions
from 2001-2002 to 2006-2007

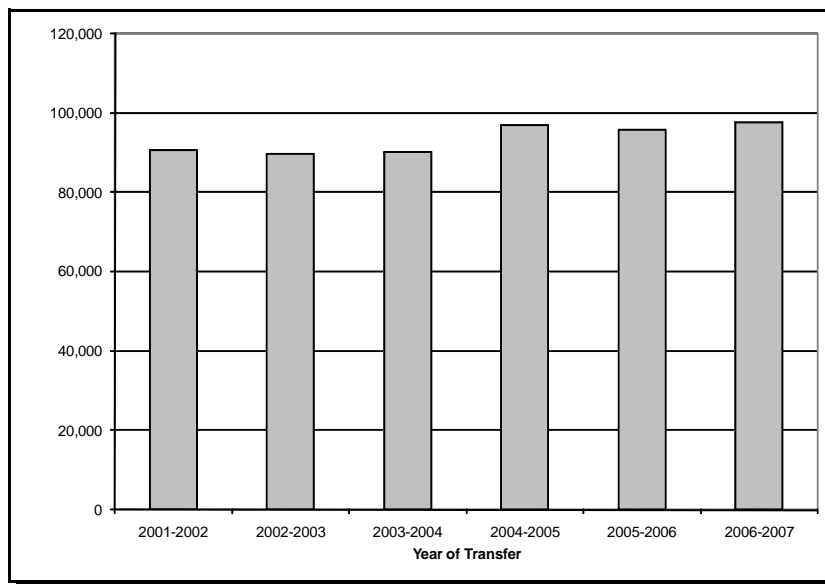


Table 4:
Annual Number of California Community College
Transfers to Four-Year Institutions
from 2001-2002 to 2006-2007

Year of Transfer						
	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Total Transfers	90,596	89,607	90,151	96,980	95,670	98,842

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) Four-Year Institutions

Year of Transfer						
	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
CSU	50,473	50,746	48,321	53,695	52,642	54,391
UC	12,291	12,780	12,580	13,211	13,462	13,874
ISP	17,070	15,541	18,100	18,365	17,840	18,752
OOS	10,762	10,540	11,150	11,709	11,726	11,825

Results:

Figure 2 and Table 4 feature the annual number of California Community College (CCC) transfers to four-year institutions across six years. Although there is a general increase over time, the overall number of transfers declines in 2002-2003 and 2005-2006. Table 5 displays the annual number of transfers for four segments; California State University (CSU), University of California (UC), In-State Private and Out-of-State (OOS) four-year institutions.

For Methodology and Data Source, see Appendix B.



ARCC 2008 Report: Systemwide Indicators

Student Progress and Achievement: Degree/Certificate/Transfer

Figure 3:
Annual Number of California Community College
Transfers to California State University (CSU)
from 2001-2002 to 2006-2007

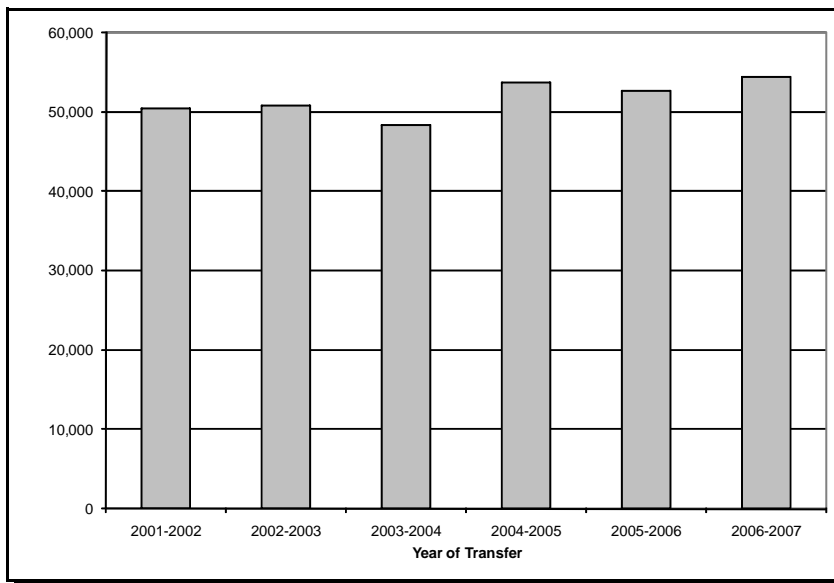


Table 6:
Annual Number of California Community College
Transfers to California State University (CSU)
from 2001-2002 to 2006-2007

Year of Transfer						
	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
CSU Transfers	50,473	50,746	48,321	53,695	52,642	54,391

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 increases from 2001-2002 to 2002-2003 before decreasing in 2003-2004. A substantial increase of transfers is evident in 2004-2005 followed by a decline in 2005-2006 and an increase in 2006-2007.

For Methodology and Data Source, see Appendix B.



ARCC 2008 Report: Systemwide Indicators

Student Progress and Achievement: Degree/Certificate/Transfer

Figure 4:
Annual Number of California Community College
Transfers to the University of California (UC)
from 2001-2002 to 2006-2007

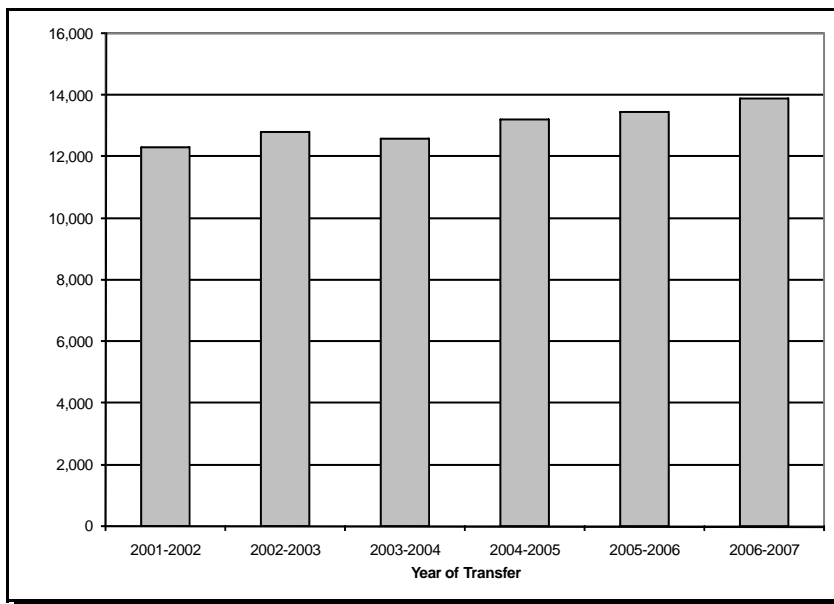


Table 7:
Annual Number of California Community College
Transfers to the University of California (UC)
from 2001-2002 to 2006-2007

Year of Transfer						
	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
UC Transfers	12,291	12,780	12,580	13,211	13,462	13,874

Results:

Figure 4 and Table 7 illustrate the annual number of California Community College (CCC) transfers to University of California (UC). With the exception of a slight decrease in 2003-2004, the number of transfers increases from 2004-2005 to 2006-2007.

For Methodology and Data Source, see Appendix B.



ARCC 2008 Report: Systemwide Indicators

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)
Four-Year Institutions from 2001-2002 to 2006-2007

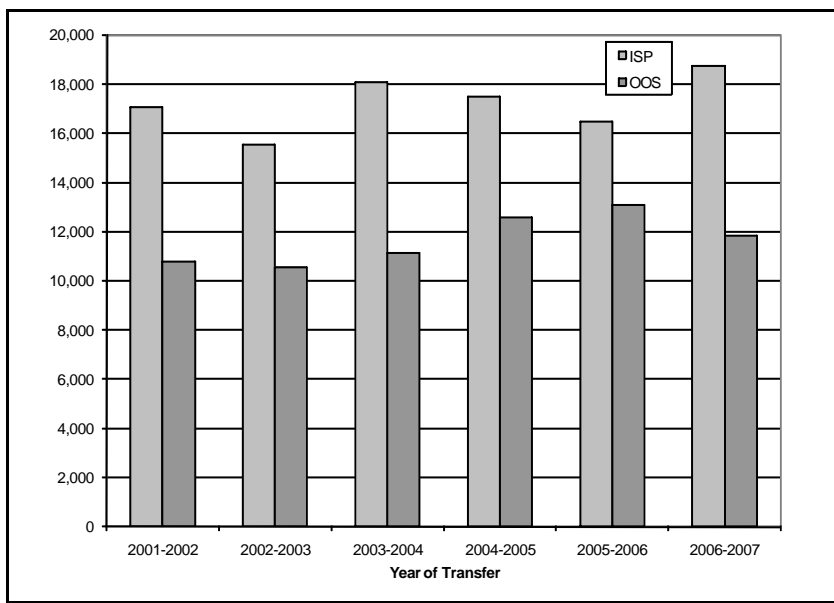


Table 8:
Annual Number of California Community College
Transfers to In-State Private (ISP) and Out-of-State (OOS)
Four-Year Institutions from 2001-2002 to 2006-2007

Year of Transfer						
	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
ISP Transfers	17,070	15,541	18,100	18,365	17,840	18,752
OOS Transfers	10,762	10,540	11,150	11,709	11,726	11,825

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. The transfer volume increases for ISP four-year institutions and increases slightly for OOS four-year institutions for the most recent academic year, 2006-2007.

For Methodology and Data Source, see Appendix B.



ARCC 2008 Report: Systemwide Indicators

Student Progress and Achievement: Degree/Certificate/Transfer

Table 9:
Transfer Rate to Four-Year 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 four-year institution within six years.

	1999-2000 to 2004-2005	2000-2001 to 2005-2006	2001-2002 to 2006-2007
Transfer Rate	40.2%	39.9%	38.8%

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. The transfer rate decreases slightly over time, with the rate of transfer to four-year institutions for the 2001-2002 cohort falling to 38.8%.

For Methodology and Data Source, see Appendix B



ARCC 2008 Report: Systemwide Indicators

Student Progress and Achievement: Vocational / Occupational / Workforce Development

Table 10: Annual Number of Vocational Awards by Program from 2004-2005 to 2006-2007
(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)		
	2004-2005	2005-2006	2006-2007	2004-2005	2005-2006	2006-2007	2004-2005	2005-2006	2006-2007
Accounting	2,472	2,501	2,489	1,060	995	1,013	1,412	1,506	1,476
Administration of Justice	5,969	5,629	6,974	1,675	1,736	1,834	4,294	3,893	5,140
Aeronautical and Aviation Technology	353	383	403	61	59	79	292	324	324
Agricultural Power Equipment Technology	33	39	54	4	11	9	29	28	45
Agriculture Business, Sales and Service	71	44	78	65	38	68	6	6	10
Agriculture Technology and Sciences, General	20	36	22	17	17	17	3	19	5
Animal Science	472	502	460	289	317	306	183	185	154
Applied Photography	174	191	179	65	63	65	109	128	114
Architecture and Architectural Technology	263	304	311	115	129	139	148	175	172
Athletic Training and Sports Medicine	20	25	20	14	18	14	6	7	6
Automotive Collision Repair	125	134	133	16	16	11	109	118	122
Automotive Technology	1,906	2,071	2,003	301	300	290	1,605	1,771	1,713
Aviation and Airport Management and Services	168	223	204	112	139	138	56	84	66
Banking and Finance	57	68	65	26	26	34	31	42	31
Biotechnology and Biomedical Technology	132	167	204	38	36	47	94	131	157
Business Administration	2,288	2,419	2,451	1,971	2,129	2,128	317	290	323
Business and Commerce, General	1,303	1,229	1,267	1,068	984	1,097	235	245	170
Business Management	1,446	1,737	2,040	767	920	857	679	817	1,183
Cardiovascular Technician	133	152	152	25	29	49	108	123	103
Chemical Technology	8	15	13	2		4	6	15	9
Child Development/Early Care and Education	7,494	7,943	7,733	1,932	1,926	1,912	5,562	6,017	5,821
Civil and Construction Management Technology	404	416	410	88	82	85	316	334	325
Commercial Art	28	27	44	16	15	30	12	12	14
Commercial Music	257	265	179	44	48	38	213	217	141
Community Health Care Worker	1	2	5				1	2	5
Computer Information Systems	805	612	628	461	409	321	344	203	307
Computer Infrastructure and Support	580	560	527	223	229	171	357	331	356
Computer Software Development	551	347	370	219	133	126	332	214	244
Construction Crafts Technology	870	914	902	85	95	86	785	819	816



ARCC 2008 Report: Systemwide Indicators

Table 10 *(continued)*

Program Title	Total Credit Awards			AA/AS Degrees			Certificates (Credit)		
	2004-2005	2005-2006	2006-2007	2004-2005	2005-2006	2006-2007	2004-2005	2005-2006	2006-2007
Cosmetology and Barbering	1,409	1,365	1,546	58	71	59	1,351	1,294	1,487
Customer Service			2						2
Dance		2	2					2	2
Dental Occupations	817	833	873	314	336	351	503	497	522
Diagnostic Medical Sonography	52	55	88	9	13	23	43	42	65
Diesel Technology	183	195	178	28	43	35	155	152	143
Digital Media	616	536	602	229	203	233	387	333	369
Drafting Technology	540	579	472	171	190	169	369	389	303
Educational Aide (Teacher Assistant)	45	55	53	18	17	21	27	38	32
Educational Technology		4	2		2	2		2	
Electro-Mechanical Technology	34	33	26	10	6	8	24	27	18
Electro-Neurodiagnostic Technology	1	11	6			5	1	11	1
Electrocardiography	14	23	18				14	23	18
Electronics and Electric Technology	891	991	1,081	314	287	262	577	704	819
Emergency Medical Services	2,310	1,895	1,712	2	2	4	2,308	1,893	1,708
Engineering Technology, General	17	36	20	11	28	14	6	8	6
Environmental Control Technology (HVAC)	359	339	307	57	49	49	302	290	258
Environmental Technology	439	267	238	27	22	24	412	245	214
Family and Consumer Sciences, General	126	108	116	125	108	105	1		11
Family Studies	26	16	13	18	10	9	8	6	4
Fashion	427	422	354	138	135	109	289	287	245
Film Studies	62	123	105	31	72	58	31	51	47
Fire Technology	3,011	2,904	3,367	830	896	905	2,181	2,008	2,462
Food Processing and Related Technologies		64	1		32	1		32	
Forestry	31	48	76	19	27	30	12	21	46
Geography	49	57	56	12	17	14	37	40	42
Gerontology	37	45	46	11	15	16	26	30	30
Graphic Art and Design	404	390	387	167	166	194	237	224	193
Health Information Technology	297	278	323	98	90	102	199	188	221
Health Occupations, General	4	9	30	1	2	6	3	7	24
Health Professions, Transfer Core Curriculum	104	150	196	104	146	189		4	7



ARCC 2008 Report: Systemwide Indicators

Table 10 *(continued)*

Program Title	Total Credit Awards			AA/AS Degrees			Certificates (Credit)		
	2004-2005	2005-2006	2006-2007	2004-2005	2005-2006	2006-2007	2004-2005	2005-2006	2006-2007
Horticulture	499	517	479	138	141	114	361	376	365
Hospital and Health Care Administration		1	2			1		1	1
Hospital Central Service Technician	14	18	9				14	18	9
Hospitality	284	325	369	92	83	96	192	242	273
Human Services	1,673	1,639	1,544	441	462	465	1,232	1,177	1,079
Industrial Systems Technology and Maintenance	58	68	108	15	8	10	43	60	98
Information Technology, General	306	218	209	14	6	3	292	212	206
Instrumentation Technology	6	3	2	4	1	1	2	2	1
Interior Design and Merchandising	390	432	491	126	149	155	264	283	336
International Business and Trade	151	166	306	62	47	39	89	119	267
Journalism	66	77	74	51	55	58	15	22	16
Labor and Industrial Relations	16	17	17	4	6	2	12	11	15
Laboratory Science Technology	12	20	11	7	11	6	5	9	5
Legal and Community Interpretation	19	25	29	3	1	4	16	24	25
Library Technician (Aide)	174	149	115	33	39	25	141	110	90
Logistics and Materials Transportation	76	60	62	2	1	7	74	59	55
Manufacturing and Industrial Technology	830	831	915	108	121	126	722	710	789
Marine Technology	2	33	21	1	7	3	1	26	18
Marketing and Distribution	273	284	314	83	100	123	190	184	191
Mass Communications	6	3	4	6	2	1		1	3
Massage Therapy	82	62	32	11	15	9	71	47	23
Medical Assisting	949	876	942	135	125	152	814	751	790
Medical Laboratory Technology	16	62	143	9	18	13	7	44	130
Mortuary Science	89	58	39	40	23	39	49	35	
Natural Resources	46	48	62	30	29	33	16	19	29
Nursing	6,859	7,080	7,781	4,442	4,726	5,169	2,417	2,354	2,612
Nutrition, Foods, and Culinary Arts	1,156	1,195	1,184	143	139	187	1,013	1,056	997
Occupational Therapy Technology	21	21	32	21	21	32			
Ocean Technology	6	9	9	3	4	4	3	5	5
Office Technology/Office Computer Applications	1,774	2,122	1,812	549	541	463	1,225	1,581	1,349
Optical Technology		1						1	



ARCC 2008 Report: Systemwide Indicators

Table 10 *(continued)*

Program Title	Total Credit Awards			AA/AS Degrees			Certificates (Credit)		
	2004-2005	2005-2006	2006-2007	2004-2005	2005-2006	2006-2007	2004-2005	2005-2006	2006-2007
Orthopedic Assistant	8	6	6	4	2	2	4	4	4
Other Agriculture and Natural Resources	9	4	8	4	1	2	5	3	6
Other Architecture and Environmental Design	3	1	4				3	1	4
Other Business and Management	176	276	268	113	216	190	63	60	78
Other Commercial Services	44	37	3				44	37	3
Other Education	4	1			1		4		
Other Engineering and Related Industrial Technologies	55	49	48	42	31	30	13	18	18
Other Fine and Applied Arts	31	15	8	3	1	2	28	14	6
Other Health Occupations	131	104	115				131	104	115
Other Information Technology	95	96	84		4	1	95	92	83
Other Media and Communications	19	14	8				19	14	8
Other Public and Protective Services	52	61	100	1			51	61	100
Paralegal	898	885	938	385	396	435	513	489	503
Paramedic	373	402	520	85	75	85	288	327	435
Pharmacy Technology	152	176	157	43	52	45	109	124	112
Physical Education	87	96	107	10	10	19	77	86	88
Physical Therapist Assistant	76	67	66	76	66	65		1	1
Physicians Assistant	81	67	64	18	18	6	63	49	58
Plant Science	12	14	8	8	10	5	4	4	3
Polysomnography	9	1	15			9	9	1	6
Printing and Lithography	87	89	98	12	16	10	75	73	88
Psychiatric Technician	475	504	335	41	45	60	434	459	275
Public Administration	31	44	32	9	14	7	22	30	25
Public Relations			4						4
Radiation Therapy Technician	15	9	11	15	9	11			
Radio and Television	230	310	245	125	152	130	105	158	115
Radiologic Technology	598	679	687	379	426	462	219	253	225
Real Estate	502	593	668	168	198	221	334	395	447
Recreation		3						3	
Respiratory Care/Therapy	420	511	537	275	353	399	145	158	138
School Health Clerk	2						2		



ARCC 2008 Report: Systemwide Indicators

Table 10 *(continued)*

Program Title	Total Credit Awards			AA/AS Degrees			Certificates (Credit)		
	2004-2005	2005-2006	2006-2007	2004-2005	2005-2006	2006-2007	2004-2005	2005-2006	2006-2007
Sign Language	134	153	136	64	73	64	70	80	72
Special Education	32	48	37	8	12	13	24	36	24
Speech/Language Pathology and Audiology	45	55	85	31	37	52	14	18	33
Surgical Technician	36	46	30	5	13	7	31	33	23
Technical Communication	24	18	16	4	4	7	20	14	9
Technical Theater	21	29	27	7	8	12	14	21	15
Travel Services and Tourism	286	257	228	55	48	53	231	209	175
Viticulture, Enology, and Wine Business	36	28	37	17	18	18	19	10	19
Water and Wastewater Technology	98	164	170	31	43	48	67	121	122
World Wide Web Administration	45	65	49	16	16	7	29	49	42
Total	61,993	63,185	65,692	22,188	23,133	23,782	39,805	40,052	41,910

Results:

Table 10 shows the numbers of awards issued by 132 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 36 to 37 percent of the credit awards issued, with certificates making up the remaining 63 to 64 percent.

For Methodology and Data Source, see Appendix B.



ARCC 2008 Report: Systemwide Indicators

Student Progress and Achievement: Vocational / Occupational / Workforce Development

**Table 11: "Top 25" Vocational Programs in 2006-2007, by Volume of Total Awards
(Program Title based on four-digit TOP Code)**
Includes Certificates Requiring Fewer Than 18 Units

	Program Title	Total Credit Awards 2006-2007	AA/AS Degrees 2006-2007	All Certificates (Credit) 2006-2007
1	Nursing	7,781	5,169	2,612
2	Child Development/Early Care and Education	7,733	1,912	5,821
3	Administration of Justice	6,974	1,834	5,140
4	Fire Technology	3,367	905	2,462
5	Accounting	2,489	1,013	1,476
6	Business Administration	2,451	2,128	323
7	Business Management	2,040	857	1,183
8	Automotive Technology	2,003	290	1,713
9	Office Technology/Office Computer Applications	1,812	463	1,349
10	Emergency Medical Services	1,712	4	1,708
11	Cosmetology and Barbering	1,546	59	1,487
12	Human Services	1,544	465	1,079
13	Business and Commerce, General	1,267	1,097	170
14	Nutrition, Foods, and Culinary Arts	1,184	187	997
15	Electronics and Electric Technology	1,081	262	819
16	Medical Assisting	942	152	790
17	Paralegal	938	435	503
18	Manufacturing and Industrial Technology	915	126	789
19	Construction Crafts Technology	902	86	816
20	Dental Occupations	873	351	522
21	Radiologic Technology	687	462	225
22	Real Estate	668	221	447
23	Computer Information Systems	628	321	307
24	Digital Media	602	233	369
25	Respiratory Care/Therapy	537	399	138

Results:

As shown in Table 11, Nursing programs issued the highest total number of awards in 2006-2007 (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.



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ARCC 2008 Report: Systemwide Indicators

Student Progress and Achievement: Vocational / Occupational / Workforce Development

Fig. 6a: Wages for Students Attaining Award in 1998-1999

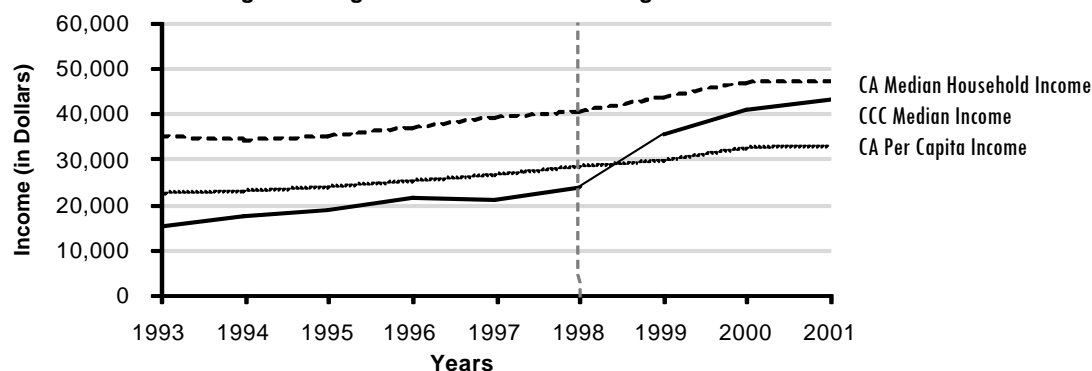


Fig. 6b: Wages for Students Attaining Award in 1999-2000

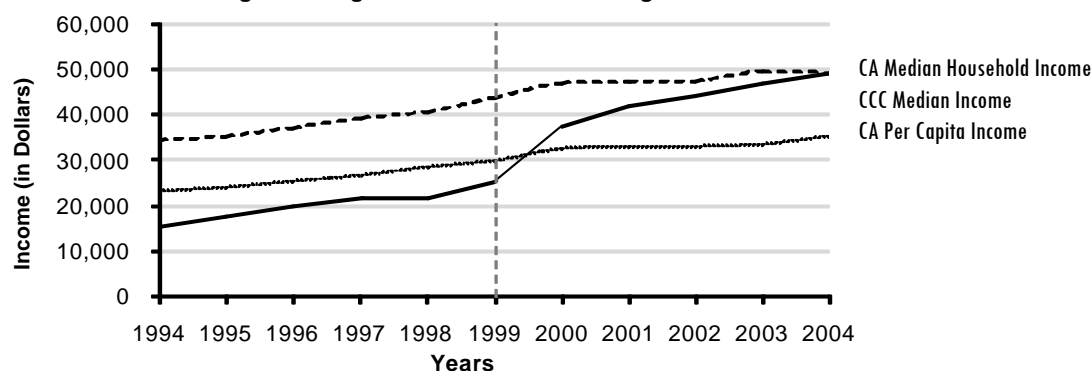
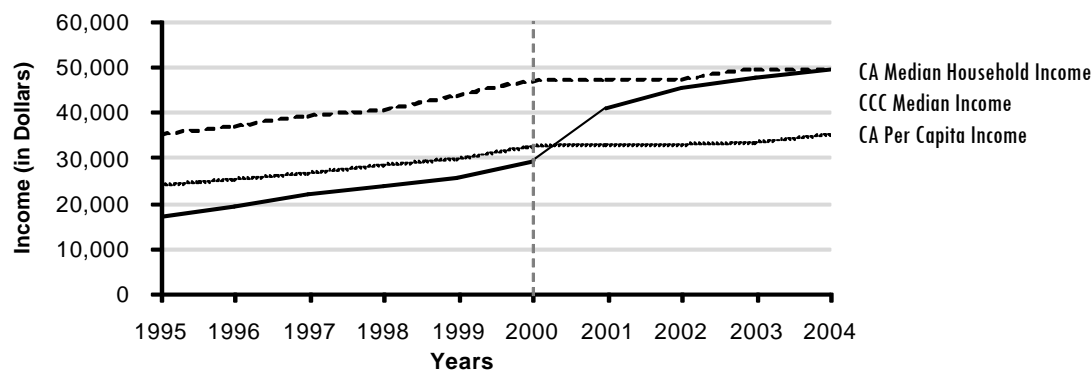


Fig. 6c: Wages for Students Attaining Award in 2000-2001



Results:

Figures 6a, 6b, and 6c represent income trends for students attaining a degree or certificate in (a) 1998-1999, (b) 1999-2000, and (c) 2000-2001. The dashed vertical line in each figure signifies the award year for each cohort. The trend lines for CCC Median Income in Figure 6 (solid line) suggest that students receiving awards from community college programs generally experience wage gains in the years following vocational 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 Income trends shown in these figures, the lines indicate a noticeable “jump” in median income that occurs following receipt of an award. This jump takes place for all three wage cohorts (1998-1999, 1999-2000 and 2000-2001). 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. Note that data for these figures have not changed from the 2007 ARCC report. Updated wage data were not yet available from California's Employment Development Department for the 2008 ARCC report.



ARCC 2008 Report: Systemwide Indicators

Student Progress and Achievement: Vocational / Occupational / Workforce Development

Table 12a: Income for Students Attaining a Degree or Certificate in 1998-1999

(N = 4,253)
(Data for Figure 6a)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
CA Median Household Income	35,100	34,100	35,300	37,100	39,000	40,600	43,800	46,900	47,177
CA Per Capita Income	22,635	23,203	24,161	25,312	26,490	28,374	29,828	32,463	32,882
CCC Median Income	15,337	17,715	19,188	21,626	21,464	23,841	35,565	40,850	43,206

Table 12b: Income for Students Attaining a Degree or Certificate in 1999-2000

(N = 4,127)
(Data for Figure 6b)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CA Median Household Income	34,100	35,300	37,100	39,000	40,600	43,800	46,900	47,177	47,500	49,320	49,185
CA Per Capita Income	23,203	24,161	25,312	26,490	28,374	29,828	32,463	32,882	32,803	33,406	35,278
CCC Median Income	15,378	17,840	19,824	21,750	21,797	25,360	37,287	41,925	44,084	46,955	49,083

Table 12c: Income for Students Attaining a Degree or Certificate in 2000-2001

(N = 4,853)
(Data for Figure 6c)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CA Median Household Income	35,300	37,100	39,000	40,600	43,800	46,900	47,177	47,500	49,320	49,185
CA Per Capita Income	24,161	25,312	26,490	28,374	29,828	32,463	32,882	32,803	33,406	35,278
CCC Median Income	17,059	19,591	22,094	24,099	25,600	29,211	40,845	45,284	47,571	49,534

Results:

The income 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 Income, contains the annual median income for a cohort of students who received any award during a particular cohort year (1998-1999, 1999-2000, 2000-2001). 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. Note that wage data in these tables have not changed from the 2007 ARCC report. Updated wage data for the 2008 ARCC report were not yet available from California's Employment Development Department.



ARCC 2008 Report: Systemwide Indicators

Pre-Collegiate Improvement: Basic Skills and ESL

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.

	2002-2003 to 2004-2005	2003-2004 to 2005-2006	2004-2005 to 2006-2007
Number of Students	126,307	122,880	123,682

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 declined from the first cohort (2002-2003 to 2004-2005) to the second cohort (2003-2004 to 2005-2006), but has risen slightly in the most recent cohort (2004-2005 to 2006-2007).

For Methodology and Data Source, see Appendix B.



ARCC 2008 Report: Systemwide Indicators

Participation Rates

Table 14:
Systemwide Participation Rate Per 1,000 Population

	2004-2005	2005-2006	2006-2007
Systemwide Participation Rate	65.7	66.0	67.3

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

	2004-2005	2005-2006	2006-2007
Under 18	13.6	15.0	16.4
18 to 19	357.8	357.7	359.9
20 to 24	259.1	255.7	253.9
25 to 29	126.9	128.5	130.7
30 to 34	77.1	77.5	80.4
35 to 39	59.1	59.6	60.5
40 to 49	48.2	47.4	47.8
50 to 64	33.4	33.7	34.5

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

	2004-2005	2005-2006	2006-2007
Female	73.5	73.5	74.7
Male	57.9	58.5	59.9

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

	2004-2005	2005-2006	2006-2007
Asian	87.4	87.3	88.4
Black/African American	79.5	81.2	82.1
Hispanic	55.1	55.7	56.4
Native American	101.0	99.5	99.8
Pacific Islander	124.8	128.1	130.7
White	54.9	54.5	54.9

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.



ARCC 2008 Report: Systemwide Indicators

Participation Rates

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

Age	Gender	Ethnicity	2004-2005	2005-2006	2006-2007
Under 18	Female	Asian	29.3	32.6	34.2
Under 18	Female	Black/African American	18.5	21.6	22.5
Under 18	Female	Hispanic	9.0	10.4	12.1
Under 18	Female	Native American	25.2	27.9	29.7
Under 18	Female	Pacific Islander	28.2	31.6	36.4
Under 18	Female	White	15.6	16.2	17.0
Under 18	Male	Asian	24.0	26.5	28.0
Under 18	Male	Black/African American	13.0	15.6	15.9
Under 18	Male	Hispanic	6.7	7.7	8.6
Under 18	Male	Native American	18.7	19.6	21.3
Under 18	Male	Pacific Islander	21.8	24.5	26.8
Under 18	Male	White	11.5	11.8	12.8
18 to 19	Female	Asian	478.9	494.8	507.4
18 to 19	Female	Black/African American	401.5	404.4	399.4
18 to 19	Female	Hispanic	338.9	338.8	339.2
18 to 19	Female	Native American	480.8	478.1	492.6
18 to 19	Female	Pacific Islander	802.7	833.8	875.7
18 to 19	Female	White	337.3	324.5	318.5
18 to 19	Male	Asian	449.4	466.8	491.9
18 to 19	Male	Black/African American	334.0	347.1	359.3
18 to 19	Male	Hispanic	274.2	281.2	282.0
18 to 19	Male	Native American	358.5	352.8	365.1
18 to 19	Male	Pacific Islander	766.1	833.6	902.7
18 to 19	Male	White	291.7	284.6	284.9



ARCC 2008 Report: Systemwide Indicators

Table 18 *(continued)*

Age	Gender	Ethnicity	2004-2005	2005-2006	2006-2007
20 to 24	Female	Asian	370.1	372.2	379.5
20 to 24	Female	Black/African American	302.1	293.7	286.3
20 to 24	Female	Hispanic	240.0	237.9	235.0
20 to 24	Female	Native American	348.8	324.7	324.4
20 to 24	Female	Pacific Islander	493.6	508.8	531.5
20 to 24	Female	White	249.6	237.4	230.2
20 to 24	Male	Asian	338.2	339.5	343.1
20 to 24	Male	Black/African American	224.4	222.2	222.9
20 to 24	Male	Hispanic	179.4	183.9	184.7
20 to 24	Male	Native American	263.1	259.5	255.7
20 to 24	Male	Pacific Islander	461.2	478.2	485.2
20 to 24	Male	White	214.0	206.6	201.4
25 to 29	Female	Asian	167.5	171.4	177.7
25 to 29	Female	Black/African American	191.7	183.9	180.4
25 to 29	Female	Hispanic	120.6	122.2	121.0
25 to 29	Female	Native American	220.7	225.3	209.1
25 to 29	Female	Pacific Islander	197.1	194.4	207.1
25 to 29	Female	White	121.4	122.2	124.0
25 to 29	Male	Asian	133.1	131.1	135.7
25 to 29	Male	Black/African American	120.9	120.4	119.7
25 to 29	Male	Hispanic	86.4	88.9	88.1
25 to 29	Male	Native American	179.6	165.2	159.3
25 to 29	Male	Pacific Islander	166.0	171.2	181.5
25 to 29	Male	White	101.1	102.4	104.8



ARCC 2008 Report: Systemwide Indicators

Table 18 *(continued)*

Age	Gender	Ethnicity	2004-2005	2005-2006	2006-2007
30 to 34	Female	Asian	104.6	103.2	106.5
30 to 34	Female	Black/African American	132.4	132.1	132.0
30 to 34	Female	Hispanic	77.5	77.5	78.4
30 to 34	Female	Native American	147.5	138.3	145.4
30 to 34	Female	Pacific Islander	114.8	117.6	113.0
30 to 34	Female	White	69.6	67.9	70.8
30 to 34	Male	Asian	74.7	73.3	72.7
30 to 34	Male	Black/African American	80.3	83.6	85.7
30 to 34	Male	Hispanic	52.1	54.4	55.7
30 to 34	Male	Native American	124.7	129.6	125.8
30 to 34	Male	Pacific Islander	105.1	107.2	107.3
30 to 34	Male	White	57.9	58.0	60.7
35 to 39	Female	Asian	81.1	81.1	81.9
35 to 39	Female	Black/African American	106.6	109.4	105.5
35 to 39	Female	Hispanic	59.7	58.7	59.3
35 to 39	Female	Native American	116.1	120.4	118.2
35 to 39	Female	Pacific Islander	79.6	87.9	85.1
35 to 39	Female	White	55.9	55.4	54.8
35 to 39	Male	Asian	50.9	52.0	52.5
35 to 39	Male	Black/African American	64.1	68.1	69.9
35 to 39	Male	Hispanic	37.8	38.3	38.8
35 to 39	Male	Native American	93.7	103.0	103.0
35 to 39	Male	Pacific Islander	79.9	88.5	87.5
35 to 39	Male	White	43.1	44.0	44.8



ARCC 2008 Report: Systemwide Indicators

Table 18 *(continued)*

Age	Gender	Ethnicity	2004-2005	2005-2006	2006-2007
40 to 49	Female	Asian	63.4	62.1	62.7
40 to 49	Female	Black/African American	82.6	81.6	81.9
40 to 49	Female	Hispanic	48.4	47.4	47.1
40 to 49	Female	Native American	90.5	83.2	87.6
40 to 49	Female	Pacific Islander	70.8	72.4	67.8
40 to 49	Female	White	49.1	47.7	46.7
40 to 49	Male	Asian	36.8	35.6	36.2
40 to 49	Male	Black/African American	52.0	53.8	54.9
40 to 49	Male	Hispanic	28.6	28.7	29.2
40 to 49	Male	Native American	73.0	71.3	69.3
40 to 49	Male	Pacific Islander	62.5	59.8	60.0
40 to 49	Male	White	32.7	32.2	32.4
50 to 64	Female	Asian	40.4	40.9	41.9
50 to 64	Female	Black/African American	44.3	45.3	46.7
50 to 64	Female	Hispanic	28.5	28.1	28.9
50 to 64	Female	Native American	59.7	58.2	57.7
50 to 64	Female	Pacific Islander	38.6	37.7	43.8
50 to 64	Female	White	36.5	36.7	36.9
50 to 64	Male	Asian	26.3	26.0	26.3
50 to 64	Male	Black/African American	30.6	32.8	34.3
50 to 64	Male	Hispanic	17.3	17.4	18.1
50 to 64	Male	Native American	44.8	43.8	43.3
50 to 64	Male	Pacific Islander	38.2	35.3	32.5
50 to 64	Male	White	22.6	22.7	22.6

Results:

For Methodology and Data Source, See Appendix B.



ARCC 2008 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 2008 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.

Tables 1.1 to 1.11 are organized under three main categories: College Performance Indicators, College Profiles, and College Peer Grouping. College Performance Indicators are further categorized as Degree/Certificate/Transfer, Vocational/Occupational/Workforce Development, and Pre-Collegiate Improvement (Basic Skills, ESL, and Enhanced Noncredit).

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. Enhanced Noncredit Progress and Achievement Rate
9. College profile summaries (e.g., headcounts, percentages of student enrollments by various demographics)
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 three most recent academic years (2004-05, 2005-06, and 2006-07); 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. 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

An Introduction to the College Level Indicators

likewise uses the total number of outcomes in the state. For example, attempted basic skills course enrollments in 2006-2007 numbered 562,485 across all colleges. Of these basic skills enrollments, 340,573 proved successful, yielding a total system rate of 60.5 percent for basic skills course completion (Indicator 5 in the table below).

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 1.11 for each college and the college's self-assessment explicitly enable analysts to evaluate a college in an equitable manner.

College Level Performance Indicator	State Rate
1. Student Progress & Achievement (2001-02 to 2006-07)	51.2%
2. Completed 30 or More Units (2001-02 to 2006-07)	70.4%
3. Fall to Fall Persistence (Fall 2005 to Fall 2006)	68.3%
4. Vocational Course Completion (2006-07)	78.2%
5. Basic Skills Course Completion (2006-07)	60.5%
6. Basic Skills Course Improvement (2004-05 to 2006-07)	50.0%
7. ESL Course Improvement (2004-05 to 2006-07)	44.7%

An Important Note About Enhanced Noncredit

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

As of March 2008, 38 community colleges/schools of continuing education had applied for, and received, approval for enhanced noncredit programs. Data for 29 of these 38 colleges were available for the 2008 ARCC report. See Appendix B for a description of the methodology used to obtain data and calculate progress rates for the enhanced noncredit indicator, and a list of the colleges with approved programs.

Given that the enhanced noncredit data collection is in its early stages, the results for this indicator should be considered a pilot effort for the 2008 ARCC report. As such, there is no peer grouping or self-assessment requirement for enhanced noncredit performance.

Adding enhanced noncredit to the ARCC report also meant adding enhanced noncredit performance data and demographic data for schools of continuing education (e.g., Marin Community Education, San Francisco Continuing Education, San Diego Continuing Education, etc.). Because they do not offer programs measured by the other ARCC

An Introduction to the College Level Indicators

indicators, Tables 1.1 through 1.5 and Table 1.11 (peer grouping) are marked with “NA” for schools of continuing education. We have included demographic data for these schools in Tables 1.7 through 1.10.

ARCC 2008 Report: College Level Indicators

Oxnard College

Ventura County 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.)

	1999-2000 to 2004-2005	2000-2001 to 2005-2006	2001-2002 to 2006-2007
Student Progress and Achievement Rate	46.8%	50.5%	47.2%

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.)

	1999-2000 to 2004-2005	2000-2001 to 2005-2006	2001-2002 to 2006-2007
Percent of Students Who Earned at Least 30 Units	71.5%	72.7%	71.7%

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 2003 to Fall 2004	Fall 2004 to Fall 2005	Fall 2005 to Fall 2006
Persistence Rate	59.9%	58.8%	63.4%



ARCC 2008 Report: College Level Indicators

Oxnard College

Ventura County 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.

	2004-2005	2005-2006	2006-2007
Annual Successful Course Completion Rate for Vocational Courses	78.7%	78.7%	77.1%

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.

	2004-2005	2005-2006	2006-2007
Annual Successful Course Completion Rate for Basic Skills Courses	64.8%	63.0%	59.5%

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

See explanation in Appendix B.

	2002-2003 to 2004-2005	2003-2004 to 2005-2006	2004-2005 to 2006-2007
ESL Improvement Rate	14.4%	18.3%	21.9%
Basic Skills Improvement Rate	42.3%	44.1%	50.6%

Table 1.6:
Enhanced Noncredit
Progress and Achievement Rate

See explanation in Appendix B.

	2002-2003 to 2004-2005	2003-2004 to 2005-2006	2004-2005 to 2006-2007
Enhanced Noncredit Progress and Achievement Rate	.%	.%	.%



ARCC 2008 Report: College Level Indicators

Oxnard College

Ventura County Community College District

College Profile

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

	2004-2005	2005-2006	2006-2007
Annual Unduplicated Headcount	10,608	10,463	10,658
Full-Time Equivalent Students (FTES)*	4,777	4,351	4,534

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

*FTES data for 2004-2005, 2005-2006, and 2006-2007 are based on the FTES recalculation.

Table 1.8:
Age of Students at Enrollment

	2004-2005	2005-2006	2006-2007
Under 18	8.7%	8.8%	11.0%
18 - 24	48.3%	48.5%	48.9%
25 - 49	37.8%	37.2%	34.8%
Over 49	5.2%	5.6%	5.2%
Unknown	0.0%	0.0%	0.0%

Source: Chancellor's Office, Management Information System

Table 1.9:
Gender of Students

	2004-2005	2005-2006	2006-2007
Female	57.6%	58.4%	57.9%
Male	40.9%	40.2%	40.9%
Unknown	1.4%	1.5%	1.2%

Source: Chancellor's Office, Management Information System



ARCC 2008 Report: College Level Indicators

Oxnard College

Ventura County Community College District

College Profile

Table 1.10:
Ethnicity of Students

	2004-2005	2005-2006	2006-2007
Asian	3.8%	3.9%	3.4%
Black/African American	4.3%	4.2%	4.1%
Filipino	5.9%	5.5%	5.3%
Hispanic	58.8%	59.1%	60.5%
Native American	0.9%	0.9%	0.9%
Other Non-White	0.4%	0.6%	0.8%
Pacific Islander	0.6%	0.7%	0.8%
White	21.1%	21.2%	19.4%
Unknown/Decline to State	4.1%	3.9%	4.6%

Source: Chancellor's Office, Management Information System



ARCC 2008 Report: College Level Indicators

Oxnard College

Ventura County Community College District

College Peer Grouping

Table 1.11: Peer Grouping

	Indicator	College's Rate	Peer Group Average	Peer Group Low	Peer Group High	Peer Group
A	Student Progress and Achievement Rate	47.2	46.1	39.4	58.0	A6
B	Percent of Students Who Earned at Least 30 Units	71.7	67.1	53.5	76.5	B3
C	Persistence Rate	63.4	68.9	61.6	76.1	C2
D	Annual Successful Course Completion Rate for Credit Vocational Courses	77.1	74.9	66.4	85.5	D2
E	Annual Successful Course Completion Rate for Credit Basic Skills Courses	59.5	58.3	43.2	76.4	E2
F	Improvement Rate for Credit Basic Skills Courses	50.6	46.6	26.3	56.7	F2
G	Improvement Rate for Credit ESL Courses	21.9	43.2	7.6	79.9	G2

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 2008 Report: College Level Indicators

Oxnard College

Ventura County Community College District

College Self-Assessment

Oxnard College is one of three colleges in the Ventura County Community College District. The college serves a diverse population of students that come primarily from the Oxnard Plain, located in the southwest area of Ventura County. Approximately 75% of the students are from ethnic minority groups with Hispanic students making up the largest group of students. This diversity is reflective of the population of the surrounding community.

Although Oxnard College's student progress and achievement rate is similar to its peer group average, it is of concern that just under 50% of first-time students show progress in obtaining an associate's degree or certificate, completing transfer-level courses, or transferring to a four-year institution. We have seen an increase in the persistence rate of first-time students. However, approximately one-third of students are not returning and enrolling in the subsequent year. The college is encouraged to see that the successful course completion rate for Vocational courses is relatively high (approximately 80%). The college has acknowledged the achievement and persistence issues facing many of our students and is formulating strategies to address them. The newly-formed Student Success Committee brings together key campus stakeholders to address these issues.

Pre-collegiate improvement in Basic Skills and ESL are specific areas that Oxnard College has identified to better serve students. Although the percentage of students who successfully complete basic skills courses (reading, writing, and math) and then go on to take higher level courses has increased in the last few years, there is still a great deal of work that needs to be done. The college made basic skills a priority by opening the Success Academy in the Fall of 2007 that emphasizes a "high tech/high touch" approach in serving the needs of basic skills students. The modular design of the curriculum combines computerized instruction and a hands-on approach including one-on-one and small group instruction. An expanded ESL program is also being developed to better serve the needs of students in the community. The college's low improvement rates for ESL, well below its peer group average, may be misleading due to the definition of the indicator and the college's sequencing of ESL courses.

Oxnard College was awarded a Title V cooperative grant from the U.S. Department of Education in 2006. The grant focuses on developing and enhancing academic and student services to help Hispanic students come to the college and then transfer to one of our partner universities (CSU Channel Islands and UC Santa Barbara). Cooperative efforts are also underway with our local high school district. The college anticipates that student progress and achievement rates, as well as persistence rates, will increase over the next few years through the efforts of this grant.

Positive changes are occurring at Oxnard College. There has been an increase in student enrollments, a number of facility and classroom technology improvements are underway, and a new leadership team is in place at the college. Oxnard College is committed to improving its instructional and student services to fully serve its diverse student population.



Appendices

Appendix A: Peer Groups

Appendix B: Methodology for Deriving Counts and Rates for Systemwide and 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

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Appendix A: Peer Groups

Introduction

This appendix contains additional information about 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 (outcomes). 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 System Office research staff used.

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 six tables in this appendix. Note that the regression analysis for one ARCC outcome, Basic Skills Course Completion Rate, yielded only two uncontrollable factors based on data available for the 2008 report. Values for these factors appear in the second and third columns of Table A5.

The second type of information is the basic statistical summary of the outcome (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 border in each table. 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.

Finally, the fourth type of data is the state level figures 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 outcome (as specified by the column heading) divided by the number of colleges for which data were available for that predictor or outcome. For example, looking at Table A4, the statewide average for the predictor “Pct Male Fall 2006” is the sum of the percentage of males at each college in Fall 2006 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. This form of statewide average therefore states the *average institution rate* in the system. This average is not the rate of success in the entire state for that indicator. Please refer to the introduction for the college level indicators (in the main body of this report) if you want to see a specific rate of success in the entire state.

Appendix A: Peer Groups

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). 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 Lassen as a peer for L.A. City, and this tends to clash with our knowledge of the high density southern California setting of L.A. City and the rural northern California setting of Lassen. 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 this report's release. 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	40%	12%	0.27	42.3	64.3	53.4	39	Butte; Canyons; Citrus; Contra Costa; Cosumnes River; Crafton Hills; Cuesta; Cuyamaca; Cypress; De Anza; Diablo Valley; El Camino; Evergreen Valley; Fullerton; Glendale; Golden West; Grossmont; L.A Harbor; L.A Pierce; L.A Valley; Las Positas; Long Beach City; Los Medanos; Moorpark; Mt. San Antonio; Orange Coast; Palomar; Pasadena City; Sacramento City; San Diego City; San Diego Mesa; San Jose City; Santa Barbara City; Santa Monica City; Santiago Canyon; Sierra; Skyline; Solano; Ventura.
A2	44%	30%	0.18	37.0	56.2	47.3	7	Chabot; Copper Mountain; Desert; Gavilan; Imperial Valley; Redwoods; Southwestern.
A3	62%	9%	0.21	33.6	57.4	48.9	18	Allan Hancock; American River; Barstow; Cerro Coso; Coastline; Columbia; Feather River; Hartnell; Lake Tahoe; Mendocino; Merritt; Monterey; Napa Valley; Palo Verde; Santa Rosa; Siskiyous; Taft; West L.A.
A4	56%	22%	0.19	24.4	50.5	41.6	11	Canada; Compton; L.A City; L.A Trade-Tech; Lassen; Merced; Mission; Rio Hondo; San Bernardino; Santa Ana; Southwest L.A.
A5	52%	11%	0.39	50.1	65.6	57.4	14	Alameda; Berkeley City College; Cabrillo; Foothill; Irvine Valley; Laney; Marin; MiraCosta; Ohlone; Saddleback; San Diego Mramar; San Francisco City; San Mateo; West Valley.
A6	40%	14%	0.15	39.4	58.0	46.1	19	Antelope Valley; Bakersfield; Cerritos; Chaffey; East L.A.; Fresno City; L.A. Mission; Modesto; Mt. San Jacinto; Oxnard; Porterville; Reedley; Riverside; San Joaquin Delta; Sequoias; Shasta; Victor Valley; West Hills Coalinga; Yuba.
Statewide Average	47%	14%	0.24			50.3	N = 108	

Appendix A: Peer Groups

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

Peer Group Number	Means of Predictors			Students Who Earned at Least 30 Units Rate			Peer Group Colleges	
	Student Count Fall 2004	Average Unit Load, Fall 2004	ESAI Per Capita Income	Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
B1	9,032.0	7.3	\$22,511	54.5	74.3	67.0	35	Alameda; Allan Hancock; Barstow; Berkeley City College; Cerro Coso; Columbia; Contra Costa; Cosumnes River; Cuyamaca; Desert; Evergreen Valley; Gavilan; Golden West; Hartnell; Irvine Valley; L.A. Harbor; Laney; Las Positas; Lassen; Los Medanos; Mendocino; Merritt; Mission; Monterey; Napa Valley; Ohlone; San Diego City; San Diego Miramar; San Jose City; Santiago Canyon; Siskiyous; Skyline; Solano; Ventura; West L.A.
B2	18284.4	8.4	\$20,520	66.8	77.6	70.9	29	Bakersfield; Butte; Cabrillo; Canyons; Cerritos; Chabot; Chaffey; Citrus; Cuesta; Cypress; East L.A.; El Camino; Fresno City; Fullerton; Glendale; Grossmont; L.A. City; L.A. Pierce; L.A. Valley; Long Beach City; MiraCosta; Modesto; Rio Hondo; Sacramento City; San Diego Mesa; San Joaquin Delta; Santa Barbara City; Sierra; Southwestern.
B3	8,484.7	8.6	\$15,686	53.5	76.5	67.1	21	Antelope Valley; Compton; Copper Mountain; Crafton Hills; Feather River; Imperial Valley; L.A. Mission; L.A. Trade-Tech; Merced; Mt. San Jacinto; Oxnard; Porterville; Redwoods; Reedley; San Bernardino; Sequoias; Shasta; Southwest L.A.; Victor Valley; West Hills Coalinga; Yuba.
B4	6,228.5	4.7	\$20,031	53.0	74.0	63.3	4	Coastline; Lake Tahoe; Palo Verde; Taft.
B5	10,894.8	7.2	\$37,321	71.2	75.0	72.6	5	Canada; Foothill; Marin; San Mateo; West Valley.
B6	27,055.9	8.1	\$25,745	67.6	79.8	74.0	14	American River; De Anza; Diablo Valley; Moorpark; Mt. San Antonio; Orange Coast; Palomar; Pasadena City; Riverside; Saddleback; San Francisco City; Santa Ana; Santa Monica City; Santa Rosa.
Statewide Average	13,659.9	7.9	\$21,662			69.1	N = 108	

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 2005	Student Count Fall 2005	ESAI Household Income	Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
C1	59%	8,158.8	\$39,684	31.1	71.4	56.8	27	Allan Hancock; Barstow; Berkeley City College; Cerro Coso; Coastline; Columbia; Compton; Cuyamaca; Feather River; Hartnell; L.A. City; L.A. Trade-Tech; Lake Tahoe; Laney; Lassen; Mendocino; Merced; Merritt; Monterey; Napa Valley; Palo Verde; San Bernardino; San Diego City; Siskiyou; Southwest L.A.; Taft; West L.A.
C2	42%	12,143.4	\$52,680	61.6	76.1	68.9	25	Alameda; Cabrillo; Canyons; Chabot; Chaffey; Citrus; Contra Costa; Cosumnes River; Cypress; Gavilan; Golden West; Grossmont; L.A. Harbor; L.A. Mission; L.A. Pierce; Los Medanos; MiraCosta; Oxnard; San Diego Miramar; Santa Barbara City; Santiago Canyon; Sierra; Skyline; Solano; Ventura.
C3	41%	9,795.5	\$36,124	37.6	75.1	62.4	18	Antelope Valley; Bakersfield; Butte; Copper Mountain; Crafton Hills; Cuesta; Desert; Imperial Valley; L.A. Valley; Mt. San Jacinto; Porterville; Redwoods; Reedley; Sequoias; Shasta; Victor Valley; West Hills Coalinga; Yuba.
C4	44%	25,535.8	\$45,228	62.3	77.0	70.6	21	American River; Cerritos; East L.A.; El Camino; Fresno City; Glendale; Long Beach City; Modesto; Mt. San Antonio; Palomar; Pasadena City; Rio Hondo; Riverside; Sacramento City; San Diego Mesa; San Francisco City; San Joaquin Delta; Santa Ana; Santa Monica City; Santa Rosa; Southwestern.
C5	32%	20,046.8	\$65,579	66.4	78.9	73.8	5	De Anza; Diablo Valley; Fullerton; Moorpark; Orange Coast.
C6	52%	11,420.4	\$70,373	63.5	78.1	70.7	12	Canada; Evergreen Valley; Foothill; Irvine Valley; Las Positas; Marin; Mission; Ohlone; Saddleback; San Jose City; San Mateo; West Valley
Statewide Average	47%	13,580.1	\$ 47,786			65.6	N = 108	

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 2006	Pct Students Age 30+ Fall 2006	Miles to Nearest UC	Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
D1	39%	46%	41.9	65.8	86.8	75.4	29	Allan Hancock; Barstow; Berkeley City College; Canada; Cerro Coso; Coastline; Columbia; Compton; Contra Costa; Cuyamaca; Feather River; Folsom Lake; Glendale; 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%	27%	33.1	66.4	85.5	74.9	46	Antelope Valley; Butte; Cerritos; Chaffey; Citrus; Copper Mountain; Cosumnes River; Crafton Hills; Cypress; De Anza; Desert; Diablo Valley; El Camino; Evergreen Valley; Fresno City; Fullerton; Golden West; Grossmont; L.A. Harbor; L.A. Mission; L.A. Pierce; L.A. Valley; Las Positas; Lemoore; Los Medanos; Modesto; Moorpark Mt. San Antonio; 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; Sierra; Skyline; Solano; Southwestern; Ventura; Victor Valley; Yuba
D3	40%	27%	130.7	65.1	81.1	74.4	8	Bakersfield; Coalinga; Cuesta; Imperial Valley; Porterville; Reedley; Sequoias; Shasta
D4	48%	38%	24.0	66.4	97.1	79.8	22	Alameda; American River; Cabrillo; Canyons; Chabot; East L.A.; Foothill; Gavilan; Hartnell; L.A. Trade-Tech; Long Beach City; MiraCosta; Ohlone; Palomar; Rio Hondo; San Bernardino; San Diego Miramar; San Francisco City; San Jose City; San Mateo; Santa Ana; Santiago Canyon
D5	43%	45%	240.3	78.9	81.4	79.9	3	Lassen; Redwoods; Siskiyou
D6	76%	60%	140.9	91.8	97.1	94.4	2	Palo Verde; Taft
Statewide Average	43%	35%	48.3			76.5	N = 110	

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	Bachelor Plus Index	Poverty Index	Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
E1	0.36	0.15	49.4	66.1	57.2	7	Alameda; Berkeley City College; Laney; Merritt; San Diego Mesa; Santa Barbara City; Santa Monica City
E2	0.17	0.14	43.2	76.4	58.3	28	Allan Hancock; Antelope Valley; Barstow; Cerritos; Cerro Coso; Chaffey; Citrus; Columbia; Copper Mountain; Crafton Hills; Desert; Feather River; Hartnell; L.A. Mission; Lassen; Mendocino; Modesto; Mt. San Antonio; Mt. San Jacinto; Oxnard; Palo Verde; Rio Hondo; Riverside; Santa Ana; Shasta; Southwestern; Victor Valley; Yuba
E3	0.27	0.09	50.5	74.0	63.2	34	American River; Cabrillo; Canyons; Chabot; Coastline; Contra Costa; Cosumnes River; Cuyamaca; Cypress; Evergreen Valley; Fullerton; Gavilan; Golden West; Grossmont; L.A. Pierce; Lake Tahoe; Las Positas; Los Medanos; MiraCosta; Mission; Monterey; Moorpark; Napa Valley; Orange Coast; Palomar; San Diego Miramar; San Francisco City; San Jose City; Santa Rosa; Santiago Canyon; Sierra; Skyline; Solano; Ventura
E4	0.14	0.22	50.3	70.1	57.7	17	Bakersfield; Compton; East L.A.; Fresno City; Imperial Valley; L.A. City; L.A. Trade-Tech; Merced; Porterville; Reedley; San Bernardino; San Joaquin Delta; Sequoias; Southwest L.A.; Taft; West Hills Coalinga; West L.A.
E5	0.24	0.17	37.3	68.8	57.8	12	Butte; Cuesta; El Camino; Glendale; L.A. Harbor; L.A. Valley; Long Beach City; Pasadena City; Redwoods; Sacramento City; San Diego City; Siskiyou
E6	0.41	0.06	57.3	81.9	66.8	10	Canada; De Anza; Diablo Valley; Foothill; Irvine Valley; Marin; Ohlone; Saddleback; San Mateo; West Valley
Statewide Average	0.24	0.13			60.5	N =108	

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	Student Count Fall 2005	Nearest 4 Yr SAT Verbal 25 Pctl. 2005	Unemployment Index	Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
F1	10,317.8	541.3	0.06	31.5	58.7	47.1	16	Alameda; Allan Hancock; Berkeley City College; Cabrillo; Coastline; Contra Costa; Cuesta; Cuyamaca; Irvine Valley; Laney; Los Medanos; Merritt; Napa Valley; San Diego Miramar; Santa Barbara City; Solano
F2	8,928.2	454.3	0.07	26.3	56.7	46.6	23	Butte; Citrus; Columbia; Copper Mountain; Crafton Hills; Cypress; Desert; Feather River; Gavilan; Grossmont; Hartnell; Lake Tahoe; Lassen; Mendocino; Mt. San Jacinto; Oxnard; Palo Verde; Redwoods; San Diego City; San Diego Mesa; Shasta; Siskiyou; Southwestern
F3	10,723.0	397.9	0.11	29.3	59.9	46.1	24	Antelope Valley; Bakersfield; Barstow; Cerro Coso; Compton; Fresno City; Imperial Valley; L.A. City; L.A. Harbor; L.A. Mission; L.A. Trade-Tech; Merced; Modesto; Porterville; Reedley; San Bernardino; San Joaquin Delta; Sequoias; Southwest L.A.; Taft; Victor Valley; West Hills Coalinga; West L.A.; Yuba
F4	12,650.8	425.7	0.04	44.6	62.4	54.3	23	Canada; Canyons; Chabot; Cosumnes River; De Anza; Evergreen Valley; Foothill; Fullerton; Golden West; Las Positas; Marin; MiraCosta; Mission; Monterey; Moorpark; Ohlone; San Jose City; San Mateo; Santiago Canyon; Sierra; Skyline; Ventura; West Valley
F5	25,375.8	408.3	0.07	47.7	60.2	53.4	18	American River; Cerritos; Chaffey; East L.A.; El Camino; Glendale; L.A. Pierce; L.A. Valley; Long Beach City; Mt. San Antonio; Palomar; Pasadena City; Rio Hondo; Riverside; Sacramento City; San Francisco City; Santa Ana; Santa Rosa
F6	24,551.0	552.5	0.05	24.2	56.8	43.5	4	Diablo Valley; Orange Coast; Saddleback; Santa Monica City
Statewide Average	13,580.1	444.2	0.07			49.1	N = 108	

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 2005	English Not Spoken Well Index	Bachelor Plus Index	Lowest Peer	Highest Peer	Average	Number of Peers	Colleges in the Peer Group
G1	10,303.9	0.23	0.13	9.4	80.8	46.1	10	Compton; East L.A.; Hartnell; Imperial Valley; L.A. City; L.A. Mission; L.A. Trade-Tech; Porterville; Southwest L.A.; West Hills Coalinga
G2	11,615.8	0.13	0.20	7.6	79.9	43.2	21	Allan Hancock; Bakersfield; Chabot; Citrus; Cypress; Desert; Evergreen Valley; Gavilan; Golden West; L.A. Harbor; L.A. Valley; Merced; Oxnard; Reedley; San Bernardino; San Diego City; Santiago Canyon; Sequoias; Taft; West L.A.; Yuba
G3	8,929.2	0.05	0.20	0.0	70.8	29.7	28	Antelope Valley; Barstow; Butte; Canyons; Cerro Coso; Columbia; Contra Costa; Copper Mountain; Cosumnes River; Crafton Hills; Cuyamaca; Feather River; Grossmont; Lake Tahoe; Lassen; Los Medanos; Mendocino; Mt. San Jacinto; Napa Valley; Palo Verde; Redwoods; Sacramento City; Shasta; Sierra; Siskiyou; Solano; Ventura; Victor Valley
G4	23,046.1	0.14	0.22	14.7	74.0	49.0	17	Cerritos; Chaffey; El Camino; Fresno City; Fullerton; Glendale; L.A. Pierce; Long Beach City; Modesto; Mt. San Antonio; Orange Coast; Pasadena City; Rio Hondo; Riverside; San Joaquin Delta; Santa Ana; Southwestern
G5	26,198.8	0.08	0.35	28.9	71.6	51.6	10	American River; De Anza; Diablo Valley; Foothill; Palomar; Saddleback; San Diego Mesa; San Francisco City; Santa Monica City; Santa Rosa
G6	10,134.6	0.08	0.35	14.4	67.3	39.3	22	Alameda; Berkeley City College; Cabrillo; Canada; Coastline; Cuesta; Irvine Valley; Laney; Las Positas; Marin; Merritt; MiraCosta; Mission; Monterey; Moorpark; Ohlone; San Diego Miramar; San Jose City; San Mateo; Santa Barbara City; Skyline; West Valley
Statewide Average	13,580.1	0.10	0.24			41.5	N = 108	

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**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 2001-2002 to 2006-2007 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 2001-2002 to 2006-2007 from the table titled: *Undergraduate and Graduate Degrees Granted, Systemwide from 1935-1936 to 2006-2007*.

Total from CCC:

Number of Baccalaureate students who attended a CCC from 2001-2002 to 2006-2007 is from the tables titled: *Baccalaureates Granted to Students Who Originally Transferred From California Community Colleges, by Campus, 2006-2007*.

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

Calculation: $\text{CSU Percent} = \text{Total from CCC} / \text{Total BA/BS}$

B. University of California (UC)

Data Source: California Postsecondary Education Commission (CPEC)

Total BA/BS:

Number of Bachelor degrees received at UC from 2001-2002 to 2006-2007 from the On-Line Data System reports: *Degrees/Completion-Total Degrees*.

Total from CCC:

Number of Bachelor degrees received at UC from 2001-2002 to 2006-2007 from the On-Line Data System reports: *Degrees/Completion-Total Degrees-Community Colleges*.

Calculation: $\text{UC Percent} = \text{Total from CCC} / \text{Total BA/BS}$

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 2001-2002 to 2006-2007.

A. California State University (CSU)

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

Total Transfers:

Number of transfers from 2001-2002 to 2006-2007 is from the tables titled: *California Community College Transfers to CSU*.

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

B. University of California (UC)

Data Source: University of California (UC), Office of the President

Total Transfers:

Number of transfers from 2001-2002 to 2006-2007 is from the tables titled: *Full Year Transfer Data*.

Note: The full-year data refer to all students who attended a California community college and applied to a UC campus. This includes California residents as well as non-residents. It also includes lower- and upper-division transfer students from California community colleges.

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 2001-2002 to 2006-2007 were determined by aggregating a series of cohorts (1993-1994 to 2005-2006) consisting of first-time freshman within an academic year. The twelve 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 \geq 12 at your college and/or anywhere in the system.

Outcome

A student must successfully achieve the following outcome by 2006-2007.

1. Transferred to Four-Year Institution

Match with National Student Clearinghouse (NSC), UC, CSU files

First-Time Freshman Cohorts													Transfer by
93-94	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	06-07
	94-95	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	06-07
		95-96	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	06-07
			96-97	-----	-----	-----	-----	-----	-----	-----	-----	-----	06-07
				97-98	-----	-----	-----	-----	-----	-----	-----	-----	06-07
					98-99	-----	-----	-----	-----	-----	-----	-----	06-07
						99-00	-----	-----	-----	-----	-----	-----	06-07
							00-01	-----	-----	-----	-----	-----	06-07
								01-02	-----	-----	-----	-----	06-07
									02-03	-----	-----	-----	06-07
										03-04	-----	-----	06-07
											04-05	-----	06-07
												05-06	06-07

*Systemwide is defined as all California Community Colleges

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 1999-2000 (Cohort 1), 2000-2001 (Cohort 2) and 2001-2002 (Cohort 3) who completed at least 12 units by 2004-2005 (Cohort 1), 2005-2006 (Cohort 2) and 2006-2007 (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 \geq 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*

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: R&P (Research and Planning Unit) and the CCCCCO 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 (2004-2005, 2005-2006, and 2006-2007). 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 CCCCCO Web site.

Appendix B: Methodology for Systemwide and College Performance Indicators

FIGURES 6a-6c: INCREASE IN TOTAL PERSONAL INCOME AS A RESULT OF RECEIVING DEGREE/CERTIFICATE

Methodology: R&P (Research and Planning Unit) and the CCCCCO 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 1998-1999 (Cohort 1), 1999-2000 (Cohort 2), or 2000-2001 (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 1998-1999 cohort, three complete years of post-award wage data were available. Five years of post-award wage data were available for the 1999-2000 cohort, and four years of post-award wage data were available for the 2000-2001 cohort.

From the combined COMIS and EDD wage data file, we selected students who received a single award (degree or certificate) 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, but a more comprehensive wage analysis that includes various adjustments is planned as a separate paper.

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

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLES 12a-12c: INCREASE IN TOTAL PERSONAL INCOME AS A RESULT OF RECEIVING DEGREE/CERTIFICATE

Methodology: R&P (Research and Planning 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 1998-1999 (Cohort 1), 1999-2000 (Cohort 2), or 2000-2001 (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 1998-1999 cohort, three complete years of post-award wage data were available. Five years of post-award wage data were available for the 1999-2000 cohort, and four years of post-award wage data were available for the 2000-2001 cohort.

From the combined COMIS and EDD wage data file, we selected students who received a single award (degree or certificate) 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, but a more comprehensive wage analysis that includes various adjustments is planned as a separate paper.

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

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 13: ANNUAL NUMBER OF CREDIT BASIC SKILLS IMPROVEMENTS

Methodology: R&P 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 (2002-2003 to 2004-2005, 2003-2004 to 2005-2006, and 2004-2005 to 2006-2007) 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 "P" or "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: R&P extracted statewide population data with demographic breakdowns by ethnicity, gender, and age from the Department of Finance's (DOF) website for 2004, 2005, and 2006.

The Systemwide Participation Rate 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.

CCCCO MIS staff extracted corresponding demographic data for the statewide community college system for Academic Years 2004-2005, 2005-2006, and 2006-2007.

R&P calculated the rates of community college participation per 1,000 population by age group, gender, and ethnicity as follows:

$$(\text{Community College Enrollment for Academic Year} / \text{DOF Population for Year}) \times 1,000.$$

R&P used the DOF data that corresponds to the Fall term of the academic year. For example, for CCCCCO academic year 2004-2005, we used DOF annual data for 2004.

Data Sources: Chancellor's Office Management Information System (COMIS) and State of California, Department of Finance, *Race/Ethnic Population 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 Systemwide and 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 threshold 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 1999-2000 (Cohort 1), 2000-2001 (Cohort 2) and 2002-2003 (Cohort 3) who achieved outcomes by 2004-2005 (Cohort 1), 2005-2006 (Cohort 2) and 2006-2007 (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*

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*

CB05 COURSE-TRANSFER-STATUS = A, B

SX04 ENROLLMENT-GRADE = A, B, C, CR
AND

CB03 COURSE-TOP-CODE = 17*

CB05 COURSE-TRANSFER-STATUS = A, B

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

4. Transfer Prepared

CB05 COURSE-TRANSFER-STATUS = A, B

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

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

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 threshold 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 1999-2000 (Cohort 1), 2000-2001 (Cohort 2) and 2001-2002 (Cohort 3) who achieved outcomes by 2004-2005 (Cohort 1), 2005-2006 (Cohort 2) and 2006-2007 (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 \geq 12 at your college and/or anywhere in the system

AND

3. One or more of the following:

1. Transfer/Degree Intent

Attempted Enrollment in course(s) where:

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

CB04 COURSE-CREDIT-STATUS = D

2. Certificate Intent

Attempted Enrollment in course(s) where:

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

CB04 COURSE-CREDIT-STATUS = C, D

Outcome

A student must successfully achieve the following outcome:

At Least 30 Units

CB04 COURSE-CREDIT-STATUS = C, D

SX03 ENROLLMENT-UNITS-EARNED \geq 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 2003 (Cohort 1), Fall 2004 (Cohort 2) and Fall 2005 (Cohort 3). Persistence was measured by their enrollment in Fall 2004 (Cohort 1), Fall 2005 (Cohort 2) and Fall 2006 (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 (2004-2005, 2005-2006, 2006-2007). These cohorts excluded “special admit” students, i.e., students currently enrolled in K-12 when they took the vocational course. Vocational courses were defined via their SAM (Student Accountability Model) priority code. SAM codes A, B, and C indicate courses that are clearly occupational. Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR.

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

Cohort

All of the following must be true:

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

Outcome

The student must complete the course with:

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

Calculation: $\text{Successful Course Completion Rate} = \text{Outcome} / \text{Cohort}$

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 (2004-2005, 2005-2006, 2006-2007). 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 P (pre-collegiate basic skills) or B (basic skills, but not pre-collegiate basic skills). Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR.

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

Cohort

All of the following must be true:

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

Outcome

The student must complete the course with:

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

Calculation: $\text{Successful Course Completion Rate} = \text{Outcome} / \text{Cohort}$

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. Only students starting at two or more levels below college level/transfer level were included in the cohorts. Taxonomy of Programs (TOP) codes were used to identify ESL courses. Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR.

Students who successfully completed the initial ESL course were then followed across three academic years (including the year and term of the initial course). The outcome of interest was that group of students who successfully completed a higher-level ESL course or college level English course within three academic years of completing the first ESL course.

Cohorts were developed and followed for academic years 2002-2003 to 2004-2005, 2003-2004 to 2005-2006, and 2004-05 to 2006-2007.

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

Cohort

All of the following must be true for cohort selection:

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

Outcome

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

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

CB04 COURSE-CREDIT-STATUS = C, D

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

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

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 English or Mathematics course who successfully completed that initial course. Excluded were “special admit” students, i.e., students currently enrolled in K-12 when they took the basic skills course. Only students starting at two or more levels below college level/transfer level were included in the cohorts. Taxonomy of Programs (TOP) codes were used to identify Math and English courses. Basic skills courses were those having a course designation of P (pre-collegiate basic skills) or B (basic skills, but not pre-collegiate basic skills). Success was defined as having been retained to the end of the term (or end of the course) with a final course grade of A, B, C, or CR.

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

Cohorts were developed and followed for academic years 2002-2003 to 2004-2005, 2003-2004 to 2005-2006, and 2004-2005 to 2006-2007.

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

Cohort

All of the following must be true for cohort selection:

1. SB11 STUDENT-EDUCATION-STATUS NE 10000

2. CB03 COURSE-TOP-CODE =

For Math: 4930.40, 4930.41, 4930.42

For English: 4930.21, 4930.70

3. CB04 COURSE-CREDIT-STATUS = C

4. CB08 COURSE-BASIC-SKILLS-STATUS = P, B

5. CB21 COURSE-PRIOR-TO-COLLEGE-LEVEL NE A

6. SX04 ENROLLMENT-GRADE = A, B, C, CR

Outcome

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

CB03 COURSE-TOP-CODE =

For Math: 17**.**, 4930.40, 4930.41, 4930.42

For English: 1501.**, 1503.**, 1504.**, 1507.**, 4930.21, 4930.70, 4930.71

CB04 COURSE-CREDIT-STATUS = C, D

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

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

Calculation: Credit Basic Skills Improvement Rate = Outcome/Cohort

Appendix B: Methodology for Systemwide and College Performance Indicators

TABLE 1.6: ENHANCED NONCREDIT 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 enhanced noncredit (ENC) course or series of ENC 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 first ENC course (AKA: Transition to credit).
- Earned an ENC certificate (data not yet available as of March 2008 ARCC report).
- 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 2002-2003 (Cohort 1), 2003-2004 (Cohort 2), and 2004-2005 (Cohort 3) who achieved outcomes by 2004-2005 (Cohort 1), 2005-2006 (Cohort 2) and 2006-2007 (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 ENC only or ENC 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 ENC 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 ENC course(s) with CB11 COURSE-CLASSIFICATION-STATUS = J (workforce preparation-enhanced funding) or K (other noncredit-enhanced funding) within two successive terms (e.g. if the student enrolled in more than one ENC course, the sum of attendance hours for all ENC 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 ENC (i.e., began in ENC only or ENC and other noncredit).

**TABLE 1.6: ENHANCED NONCREDIT 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 ENC attendance

CB03 COURSE-TOP- CODE NE 0835.**
CB04 COURSE-CREDIT STATUS = D
SX04 ENROLLMENT-GRADE = A, B, C, CR

2. Became Transfer Directed

CB03 COURSE-TOP-CODE = 1501*, 1503*, 1504*, 1507*
CB05 COURSE-TRANSFER-STATUS = A, B
SX04 ENROLLMENT-GRADE = A, B, C, CR
AND
CB03 COURSE-TOP-CODE = 17*
CB05 COURSE-TRANSFER-STATUS = A, B
SX04 ENROLLMENT-GRADE = A, B, C, CR

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, CR

4. Earned Associate of Arts or Sciences Degree

SP02 STUDENT-PROGRAM-AWARD = A, S

5. Earned Credit Certificate

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

6. Transferred to Four-Year Institution

Match with NSC, UC, CSU file

Note: The March 2008 ARCC report does not include ENC Certificates in the outcome data. Program information for these certificates was not available at the time this report was published. Future analysis of ENC outcomes will include ENC Certificates of Completion and Competency.

Calculation: ENC-Only Progress and Achievement Rate = Outcome/Cohort

**TABLE 1.6: ENHANCED NONCREDIT PROGRESS AND ACHIEVEMENT RATE
(continued)**

NOTE:

As of March 2008, 38 colleges had applied for and received approval for ENC programs. Data for 29 of these colleges were available for this 2008 ARCC report. Here is a list of participating colleges. An asterisk (*) indicates that cohort and outcome data were available for one or more of the ARCC ENC cohorts from which to calculate a rate for this college.

Allan Hancock*	Modesto*
Bakersfield	Mt. San Antonio*
Butte*	Mt. San Jacinto*
Canyons	North Orange Adult*
Citrus*	Palomar*
Cuesta	Pasadena City*
Desert	Rio Hondo*
East L.A.*	Saddleback*
Gavilan	San Diego Adult*
Glendale*	San Francisco Centers*
Imperial Valley*	Santa Ana
L.A. City*	Santa Barbara CED*
L.A. Mission*	Santa Barbara City
L.A. Trade-Tech*	Santa Monica City*
L.A. Valley*	Santa Rosa*
Lake Tahoe*	Santiago Canyon
Long Beach City*	Sequoias
Mendocino*	Southwest L.A.*
Merced*	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 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.

Full-Time Equivalent Students (FTES): The FTES 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) for academic years 2004-2005, 2005-2006, and 2006-2007 (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 number of FTES reported by the colleges are generated in weekly census procedure courses that are scheduled in the primary terms (quarter or semester system).

Appendix B: Methodology for Systemwide and College Performance Indicators

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 are 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)

FTES: 320 Report from CCCCCO 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) for academic years 2004-2005, 2005-2006, and 2006-2007.

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)

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) for academic years 2004-2005, 2005-2006, and 2007-2007.

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)

Appendix B: Methodology for Systemwide and College Performance Indicators

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 2004-2005, 2005-2006, and 2006-2007.

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)

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Appendix C: Uncontrollable Factors: Selection and Regression Methods

Introduction to Regression Methods

As a preliminary step to finding the peer group for each college and for each college performance indicator, the System Office developed regression models to identify a parsimonious set of uncontrollable factors that predicted each college performance indicator. The System 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.

System Office researchers employed a hierarchical regression approach to identify the best set of uncontrollable factors that predict each of the seven college level outcomes. 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 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) 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 Basic Skills Improvement Rate covered the years 2004-05 to 2006-07, so we selected predictor variable data from the “middle years” of the cohort (e.g. Student Headcount as of Fall 2005).

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 System 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 System 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 regression analysis.

Due to the time constraints for the 2008 ARCC report, we began developing regression models with the original data submissions for 2006-07 and then updated the models based on resubmitted data (e.g., data resubmitted during the colleges’ 60-day review period for ARCC) wherever possible. The tables in Appendix C reflect regression models developed with the resubmitted data that became available within the ARCC timeframe. Use of the most recent data was particularly important in this year’s report given the System Office’s 2007 data quality efforts such as the Curriculum Reporting for the Community Colleges (CRCC) project.

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 Improvement Rate
		2001-02 to 2006-07	2001-02 to 2006-07	Fall 2005 to Fall 2006	2006-07	2006-07	2004-05 to 2006-07	2004-05 to 2006-07
1	Age of the College							
2	Student Count Fall 2003	o	o					
3	Student Count Fall 2004	o	X					
4	Student Count Fall 2005	o	o	X			X	X
5	Student Count Fall 2006	o	o	o		o		
6	Full-Time Equivalent Students 2003-2004							
7	Full-Time Equivalent Students 2004-2005							
8	Full-Time Equivalent Students 2005-2006							
9	Average Unit Load for Fall 2003		o					
10	Average Unit Load for Fall 2004		X					
11	Average Unit Load for Fall 2005		o				o	
12	Average Unit Load for Fall 2006		o	o		o		
13	Percent Female Students Fall 2003							
14	Percent Female Students Fall 2004							
15	Percent Female Students Fall 2005							
16	Percent Female Students Fall 2006							
17	Percent Male Students Fall 2005						o	
18	Percent Male Students Fall 2006				X			
19	Percent of Students Age 25+ Fall 2003	o	o					
20	Percent of Students Age 25+ Fall 2004	o	o					
21	Percent of Students Age 25+ Fall 2005	X	o	X				o
22	Percent of Students Age 25+ Fall 2006	o	o	o	o			
23	Percent of Students Age 30+ Fall 2003		o					
24	Percent of Students Age 30+ Fall 2004		o					
25	Percent of Students Age 30+ Fall 2005		o	o				o
26	Percent of Students Age 30+ Fall 2006		o	o	X			
27	Percent of Basic Skills Students Fall 2003	o						
28	Percent of Basic Skills Students Fall 2004	o						
29	Percent of Basic Skills Students Fall 2005	X						o
30	Percent of Basic Skills Students Fall 2006	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 Improvement Rate
		2001-02 to 2006-07	2001-02 to 2006-07	Fall 2005 to Fall 2006	2006-07	2006-07	2004-05 to 2006-07	2004-05 to 2006-07
31	Percent of Students on Financial Aid Fall 2003	o						
32	Percent of Students on Financial Aid Fall 2004	o						
33	Percent of Students on Financial Aid Fall 2005	o		o	o	o	o	
34	Percent Bachelor (25 plus) Index (Census)	X	o	o		X	o	X
35	Percent Foreign Born Index (Census)			o				o
36	Percent Unemployed Index (Census)	o	o	o		o	X	
37	Percent Below Poverty Index (Census)	o	o	o		X	o	
38	Economic Service Area Index (Household)	o	o	X		o	o	
39	Economic Service Area Index (Family Median)	o	o	o		o	o	
40	Economic Service Area Index (NonFamily)	o	o	o		o	o	
41	Economic Service Area Index (Per Capita)	o	X	o		o	o	
42	English Speaking Index (Census)	o						o
43	English Second Language Index (Census)					o		o
44	English Not Spoken Well Index (Census)	o						X
45	Student Average Academic Preparation Index	o	o	o		o	o	
46	Miles from College to the Nearest UC	o		o	X			o
47	Miles from College to the Nearest CSU	o		o	o		o	o
48	Miles from College to the Nearest 4-Year	o		o	o		o	o
49	Selectivity of the Nearest UC (2003)							
50	Selectivity of the Nearest CSU (2003)							
51	Selectivity of the Nearest 4-Year (2003)							
52	Selectivity of the Nearest UC (2004)							
53	Selectivity of the Nearest CSU (2004)	o						
54	Selectivity of the Nearest 4-Year (2004)	o						
55	Selectivity of the Nearest UC (2005)							
56	Selectivity of the Nearest CSU (2005)						o	
57	Selectivity of Nearest 4-Year (2005)						o	
58	Selectivity of the Nearest UC (2006)							
59	Selectivity of the Nearest CSU (2006)							
60	Selectivity of Nearest 4-Year (2006)				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 Improvement Rate
		2001-02 to 2006-07	2001-02 to 2006-07	Fall 2005 to Fall 2006	2006-07	2006-07	2004-05 to 2006-07	2004-05 to 2006-07
61	SAT Verbal 25th Percentile of Nearest UC (2003)							
62	SAT Verbal 75th Percentile of Nearest UC (2003)							
63	SAT Math 25th Percentile of Nearest UC (2003)							
64	SAT Math 75th Percentile of Nearest UC (2003)							
65	SAT Verbal 25th Percentile of Nearest CSU (2003)	o	o					
66	SAT Verbal 75th Percentile of Nearest CSU (2003)	o	o					
67	SAT Math 25th Percentile of Nearest CSU (2003)	o	o					
68	SAT Math 75th Percentile of Nearest CSU (2003)	o	o					
69	SAT Verbal 25th Percentile of Nearest 4Yr (2003)	o						
70	SAT Verbal 75th Percentile of Nearest 4Yr (2003)	o						
71	SAT Math 25th Percentile of Nearest 4Yr (2003)	o						
72	SAT Math 75th Percentile of Nearest 4Yr (2003)	o						
73	SAT Verbal 25th Percentile of Nearest UC (2004)							
74	SAT Verbal 75th Percentile of Nearest UC (2004)							
75	SAT Math 25th Percentile of Nearest UC (2004)							
76	SAT Math 75th Percentile of Nearest UC (2004)							
77	SAT Verbal 25th Percentile of Nearest CSU (2004)	o	o					
78	SAT Verbal 75th Percentile of Nearest CSU (2004)	o	o					
79	SAT Math 25th Percentile of Nearest CSU (2004)	o	o					
80	SAT Math 75th Percentile of Nearest CSU (2004)	o	o					
81	SAT Verbal 25th Percentile of Nearest 4Yr (2004)	o						
82	SAT Verbal 75th Percentile of Nearest 4Yr (2004)	o						
83	SAT Math 25th Percentile of Nearest 4Yr (2004)	o						
84	SAT Math 75th Percentile of Nearest 4Yr (2004)	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 Improvement Rate
		2001-02 to 2006-07	2001-02 to 2006-07	Fall 2005 to Fall 2006	2006-07	2006-07	2004-05 to 2006-07	2004-05 to 2006-07
85	SAT Verbal 25th Percentile of Nearest UC (2005)			o				o
86	SAT Verbal 75th Percentile of Nearest UC (2005)							o
87	SAT Math 25th Percentile of Nearest UC (2005)							o
88	SAT Math 75th Percentile of Nearest UC (2005)							
89	SAT Verbal 25th Percentile of Nearest CSU (2005)	o	o					
90	SAT Verbal 75th Percentile of Nearest CSU (2005)	o	o	o				
91	SAT Math 25th Percentile of Nearest CSU (2005)	o	o					
92	SAT Math 75th Percentile of Nearest CSU (2005)	o	o					
93	SAT Verbal 25th Percentile of Nearest 4Yr (2005)	o					X	
94	SAT Verbal 75th Percentile of Nearest 4Yr (2005)	o					o	
95	SAT Math 25th Percentile of Nearest 4Yr (2005)	o					o	
96	SAT Math 75th Percentile of Nearest 4Yr (2005)	o						
97	SAT Verbal 25th Percentile of Nearest UC (2006)							
98	SAT Verbal 75th Percentile of Nearest UC (2006)							
99	SAT Math 25th Percentile of Nearest UC (2006)							
100	SAT Math 75th Percentile of Nearest UC (2006)							
101	SAT Verbal 25th Percentile of Nearest CSU (2006)	o	o			o		
102	SAT Verbal 75th Percentile of Nearest CSU (2006)	o	o			o		
103	SAT Math 25th Percentile of Nearest CSU (2006)	o	o			o		
104	SAT Math 75th Percentile of Nearest CSU (2006)	o	o	o		o		
105	SAT Verbal 25th Percentile of Nearest 4-Yr (2006)	o						
106	SAT Verbal 75th Percentile of Nearest 4-Yr (2006)	o						
107	SAT Math 25th Percentile of Nearest 4-Yr (2006)	o						
108	SAT Math 75th Percentile of Nearest 4-Yr (2006)	o						
109	Carnegie Basic Classification (2003-04)				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 Improvement Rate
		2001-02 to 2006-07	2001-02 to 2006-07	Fall 2005 to Fall 2006	2006-07	2006-07	2004-05 to 2006-07	2004-05 to 2006-07
110	Carnegie Size and Setting (2003-04)	o	o	o			o	o
111	Carnegie Fall Headcount (2003-04)	o	o	o			o	o
112	Carnegie Degree of Urbanization (2003-04)						o	o
113	Carnegie Associate Degree Total (2003-04)	o	o	o			o	o
114	Carnegie Two Digit Programs (2003-04)		o	o			o	
115	Carnegie Four Digit Programs (2003-04)		o	o			o	
116	Carnegie Percent Part-Time Students (2003-04)		o	o				
117	Carnegie FTE Enrollment (2003-04)	o	o	o			o	o
118	Educational Needs Index Score (ENI)	o		o		o		
119	Educational Factor (ENI Factor)	o		o		o		
120	Percent 18-64 with HS Diploma (ENI Indicator)	o				o		
121	Percent 25-64 with Associate Degree (ENI Indicator)	o				o		o
122	Percent 25-64 with Bachelor or Higher (ENI Indicator)	o	o	o		o		
123	Difference in College Attainment (ENI Indicator)			o				o
124	Economic Factor (ENI Factor)	o		o		o		
125	Unemployment Rate-2003 (ENI Indicator)	o				o		
126	Percent of Under 65 in Poverty-2000 (ENI Indicator)	o		o		o		
127	Median Family Income-2000 (ENI Indicator)	o		o				
128	Per Capita Income-2000 (ENI Indicator)	o	o	o		o		
129	Percent Manufacturing Employment-2000 (ENI Indicator)			o		o	o	
130	Market Demand Factor (ENI Factor)	o	o					
131	Projected Change-Under 64 from 2000-2020 (ENI Indicator)		o					
132	Percent Population Ages 0 to 19 (2000) (ENI Indicator)	o	o	o				
133	Percent Population Ages 20 to 44 (2000) (ENI Indicator)			o				
134	Population Growth Under 65 (1990-2000) (ENI Indicator)							
135	Percent in County Speaking Second Language in Home (Census)							o
135	Percent in County Speaking English Not Well/Not at All (Census)							o
136	Percent in County Speaking Spanish in Home (Census)					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 Improvement Rate
		2001-02 to 2006-07	2001-02 to 2006-07	Fall 2005 to Fall 2006	2006-07	2006-07	2004-05 to 2006-07	2004-05 to 2006-07
137	Percent Foreign Born in County (Census)							o
138	County Household Median Income					o		
139	County Family Median Income					o		
140	County Non-Family Median Income					o	o	
141	County Per Capita Median Income					o		
142	Percent Below Poverty in County (Census)					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		0.667
<i>Progress Rate for 2006-07</i>	108	
Pct Students Age 25+ Fall 2005	108	
Pct Basic Skills Students Fall 2005	108	
Bachelor Plus Index	108	
Valid N (listwise)	108	
B: 30 Units Plus		0.391
<i>Plus 30 Units Rate for 2006-07</i>	108	
Student Count Fall 2004	108	
Average Unit Load for Fall 2004	108	
ESAI Per Capita Income	108	
Valid N (listwise)	108	
C: Persistence		0.597
<i>Persistence Rate from Fall05 to Fall06</i>	109	
Pct Students Age 25+ Fall 2005	109	
Student Count Fall 2005	109	
ESAI Household Income	108	
Valid N (listwise)	108	
D: Voc Course Completion Rate		0.400
<i>Rate of Successful Vocational Course Completion</i>		
<i>2006-2007</i>	110	
Percent Male Students Fall 2006	110	
Pct Students Age 30+ Fall 2006	110	
Miles to Nearest UC	110	
Valid N (listwise)	110	
E: Basic Skills Course Completion		0.159
<i>Rate of Successful Basic Skills Course Completion</i>		
<i>2006-2007</i>	110	
Bachelor Plus Index	108	
Poverty Index	108	
Valid N (listwise)	108	
F: Basic Skills Improvement Rate		0.253
<i>Basic Skills Improvement Rate 2004-05 to 2006-07</i>	107	
Student Count Fall 2005	109	
Nearest 4-Year SAT Verbal 25th Percentile Fall 2005	109	
Unemployment Index	108	
Valid N (listwise)	106	
G: ESL Improvement Rate		0.470
<i>ESL Improvement Rate 2004-05 to 2006-07</i>	100	
Student Count Fall 2005	109	
English Not Spoken Well Index	108	
Bachelor Plus Index	108	
Valid N (listwise)	99	

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 (2001-2002 to 2006-2007) 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 CCCCCO 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 CCCCCO 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 CCCCCO, 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 $R^2 = .67$, $F(3, 104) = 72.54$, $p < .001$, 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 negligible in the final regression and the residuals appeared to be normally distributed.

Table C3: Hierarchical Regression Analysis Summary for the Progress and Achievement Rate (2001-02 to 2006-07)

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	56.70	3.23		
	Pct Age25+	-13.60	6.68	-.19	-.19
2	(Constant)	63.07	3.29		
	Pct Age25+	-14.38	6.15	-.21	-.19
	Pct Basic Skills	-42.79	9.56	-.39	-.39
3	(Constant)	47.95	2.42		
	Pct Age25+	-17.74	3.92	-.25	-.21
	Pct Basic Skills	-22.61	6.29	-.21	-.39
	BA Index	57.71	4.62	.72	.76

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 (2001-2002 to 2006-2007) are:

- Student Count: The unduplicated number of students taking credit courses attending the college during the Fall of 2004.
- Average Unit Load: The average number of units carried by students at each college in Fall 2004.
- ESAI - Per Capita: The Economic Service Area Per Capita Index 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 CCCCCO, 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. We transformed the outcome variable by squaring the data to reduce negative skewness and to approximate a normal distribution. This transformation alters the interpretation of the unstandardized coefficients (B) that we list below in Table C4, and this explains the relatively large number displayed for the unstandardized coefficient of average student load. The table also displays the zero-order correlation of the outcome variable with each predictor. The full model has an adjusted $R^2 = .39$, $F(3, 104) = 23.95$, $p < .0001$, 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 negligible 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 (2001-02 to 2006-07)

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	4305.67	121.49		
	Student Count	0.04	0.01	.41	.41
2	(Constant)	2846.00	404.05		
	Student Count	0.03	0.01	.36	.41
	Average Unit Load	193.63	51.40	.32	.38
3	(Constant)	1597.11	444.37		
	Student Count	0.03	0.01	.29	.41
	Average Unit Load	242.13	47.51	.40	.38
	ESAI - Per Capita	0.04	0.01	.39	.36

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 ESAI - 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 2005 to Fall 2006) 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.
- Student Count: The unduplicated number of students taking credit courses attending the college during Fall 2005.
- ESAI - Median HH: The Economic Service Area Index (ESAI) - 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+). The full model has an adjusted $R^2 = .60$, $F(3, 104) = 53.91$, $p < .001$, 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 2005 to Fall 2006)

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	6852.62	405.23		
	Pct Age25+	-5252.42	838.59	-.52	-.52
2	(Constant)	5532.78	448.42		
	Pct Age25+	-4018.99	793.57	-.40	-.52
	Student Count	0.05	0.01	.40	.52
3	(Constant)	3828.82	437.58		
	Pct Age25+	-4041.75	651.38	-.40	-.52
	Student Count	0.04	0.01	.32	.53
	ESAI - Median HH	0.04	0.01	.45	.53

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 ESAI – Median HH 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. Also, students coming from higher income service areas 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 2006-2007 Vocational Course Completion Rate are:

- Pct_Male_F06: The percentage of males in each community college population as of Fall 2006, obtained from the CCCCCO MIS.
- Pct_30_F06_Root: The percentage of students age 30 years or older as of Fall 2006, obtained from the CCCCCO 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 $R^2 = .40$, $F(3, 106) = 25.20$, $p < .001$, 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.

Table C6: Hierarchical Regression Analysis Summary for
Vocational Course Completion Rate 2006-07

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	53.82	3.12		
	Pct_Male_F06	52.64	7.15	.58	.58
2	(Constant)	45.57	4.32		
	Pct_Male_F06	50.40	7.00	.55	.58
	Pct_30_F06_Root	15.73	5.87	.21	.27
3	(Constant)	42.07	4.40		
	Pct_Male_F06	49.86	6.81	.55	.58
	Pct_30_F06_Root	14.26	5.73	.19	.27
	DistUC_Log	3.08	1.14	.20	.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 may 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 2006-2007 Basic Skills Course Completion Rate are:

- **BAPlusIndex_Root:** 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. 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.
- **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 $R^2 = .16$, $F(2, 105) = 11.26$, $p < .001$, with the regression weights for the Poverty Index predictor significant at the .05 level, but the BA Index regression weight was not significant. Despite the lack of significance, we retained this indicator given its relative contribution to the model's adjusted predictive ability (R and R^2). 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 2006-07

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	46.59	3.49		
	BAPlusIndex_Root	28.69	7.12	.36	.36
2	(Constant)	64.03	8.13		
	BAPlusIndex_Root	14.0	9.34	.18	.36
	PovertyIndex_Root	-28.90	12.22	-.28	-.40

Appendix C: Uncontrollable Factors: Selection and Regression Methods

Discussion

The proportion of individuals living in poverty in a college's service area had a moderately negative correlation with the college's Basic Skills Course Completion Rate. That is, the higher the poverty index (proportion), the lower the course completion rate, in general. On the other hand, the bachelor degree attainment in a college's service area showed a moderate positive correlation with the Basic Skills Course Completion Rate. We also noted a relatively high correlation between the Poverty Index and the Bachelor of Arts/Sciences Index ($r = -.63$). The collinearity diagnostics for this model indicated minor cause for concern, though not sufficient to discount the model (Field, 2005).

The low adjusted R^2 for this model suggests the need for future 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 (2004-2005 to 2006-2007) are:

- **St_Cnt_F05_Root:** The student headcount for Fall 2005, 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.
- **FrYear_SATVerbal25_05:** The Scholastic Aptitude Test (SAT) Verbal 25th Percentile score for the nearest four-year college for 2005. Obtained from the Integrated Postsecondary Education Data System (IPEDS).
- **UnempIndex_Root:** The Unemployment Index represents the degree of unemployment 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 unemployment rate data 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.

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 $R^2 = .25$, $F(3,102) = 12.88$, $p < .001$, with the regression weights for all predictors significant at the .05 level. Based upon the standardized coefficients (beta), the Unemployment Index provides the largest contribution to the model relative to the other variables, followed closely by the nearest four-year college SAT Verbal 25th Percentile.

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 2004-05 to 2006-07

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	1682.73	227.72		
	St_Cnt_F05_Root	7.04	1.94	.34	.34
2	(Constant)	2815.33	560.89		
	St_Cnt_F05_Root	6.76	1.91	.32	.34
	FrYear_SATVerbal25_05	-2.47	1.12	-.20	-.22
3	(Constant)	5176.54	771.59		
	St_Cnt_F05_Root	5.26	1.81	.25	.34
	FrYear_SATVerbal25_05	-4.09	1.11	-.33	-.22
	UnempIndex_Root	-5619.22	1353.73	-.38	-.31

Discussion

The Unemployment Index had the greatest impact in this model, and was negatively correlated with Basic Skills Improvement Rate. In general, the higher the unemployment rate in the college's service area, 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 who are unemployed show less improvement in basic skills courses than those who are employed. The negative correlation between a college's Basic Skills Improvement Rate and its Unemployment Index 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 negative correlation between nearest four-year college SAT Verbal 25th Percentile (2005), a possible proxy measure of academic preparedness, and Basic Skills Improvement proves more puzzling and may indicate that the SAT score serves as a moderator or mediator variable in a more complex model that exceeds the scope of the ARCC analysis. Intuitively, we would presume a positive relationship here, i.e., the higher the SAT score, the higher the basic skills improvement rate, but the data show otherwise. This counterintuitive correlation may stem from a combination of selection bias and a substitution effect. That is, if the nearest public four-year institution has a relatively high "floor" or admission threshold for its enrolled students, then the nearest CCC may act as the substitute postsecondary institution for those marginally prepared students who otherwise would have attended a public four-year college (and skipped CCC enrollment). Under this hypothesis, certain CCCs will enroll a sub-cohort of students, which as a group, has fairly weak academic preparation (i.e., needing extensive remediation).

Appendix C: Uncontrollable Factors: Selection and Regression Methods

The moderately positive correlation between Student Count (i.e., college size) and Basic Skills Improvement may reflect the resources available at the larger community colleges (as well as economies of scale) that affect improvement rates in English and mathematics Basic Skills courses.

The relatively low adjusted R^2 for this model suggests the need for future 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.

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 (2004-2005 to 2006-2007) are:

- **St_Cnt_F05:** The student headcount for Fall 2005, the “middle year” for the ESL improvement cohort. Obtained from the CCCCO MIS. Analysis of this variable indicated a skewed distribution.
- **SpkEngNotWell Index:** 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 Code 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.
- **BAPlusIndex:** 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.

The plot of residuals for several of the initial models showed heteroscedasticity. After trying various transformations, we employed a Weighted Least Squares (WLS) approach using distance (in miles) to the nearest four-year college as the weighting variable (see Garson, G. David (n.d.). "Weighted Least Squares (WLS) Regression," from *Statnotes: Topics in Multivariate Analysis*. Retrieved 01/23/2008 from <http://www2.chass.ncsu.edu/garson/pa765/statnote.htm>). This is because the colleges influencing the heteroscedasticity were characterized by their considerable distance from the nearest four-year institution. We also deleted two “outlier” colleges from the final regression model (Hair, et al., 2006), though they will still be included in the cluster analysis. Both of these steps improved the adjusted R^2 without a negative effect on the regression diagnostics. At this point, we chose not to use transformed outcome or predictor variables to avoid overcorrection and development of an overly complex 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 $R^2 = .47$, $F(3,93) = 29.36$, $p < .001$, with the regression weights for all predictors significant at the .05 level. Based upon the standardized

Appendix C: Uncontrollable Factors: Selection and Regression Methods

coefficients (beta), the SpkEngNotWell Index 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.

Table C9: Hierarchical Regression Analysis Summary for
ESL Improvement Rate 2004-05 to 2006-07

Step	Variables	B	Std. Error	Standardized Coefficients	Correlation
1	(Constant)	9.28	3.36		
	St_Cnt_F05	.00	.00	.55	.55
2	(Constant)	.89	3.76		
	St_Cnt_F05	.00	.00	.45	.55
	SpkEngNotWell Index	138.90	34.57	.33	.46
3	(Constant)	-16.02	5.61		
	St_Cnt_F05	.00	.00	.33	.55
	SpkEngNotWell Index	178.06	33.81	.43	.46
	BAPlusIndex	84.31	21.82	.32	.33

*Values that appear as .00 in Table C9 are very small numbers. In the final model (Step 3), the value of .00 under B is actually .00110. The value of .00 under Std. Error is actually .00028.

Discussion

The “English Not Spoken Well or Not At All” Index had the greatest relative impact in this model, followed closely by Student Count and the BAPlus Index. All correlations of the predictors with the outcome were positive. Keep in mind that these are not causal or explanatory models and that the predictors and outcomes are institution-based rather than individual-based.

This hierarchical regression model indicates that a combination of college size, self-rated English-speaking ability of the population in the college’s service area and the educational attainment in the college’s service area achieved moderate prediction of ESL improvement rates. Larger college size, higher proportions of those stating that they speak English “Not Well” or “Not At All” and higher the bachelor degree attainment all contributed to higher ESL improvement rates.

The English Not Spoken Well or Not At All Index is new in this year’s ARCC report and may be a fertile area for exploration beyond the need to select clustering variables for the ARCC peer groups.

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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 System Office (CCCSO) 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 CCCSO 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 CCCSO 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, CCCSO 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

CCCSO 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 CCCSO implemented the four steps listed above.

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).

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 k th variable value of the p -dimensional observations for individuals i and j (Everitt, Landau, & Leese, 2001).

In the peer grouping for all seven of the outcomes, CCCSO 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 object treated as a cluster of one. Then objects are successively combined. The criterion for combination is that the within-cluster variation as measured by the sum of 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).³

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

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

(Snedecor & Cochran, 1980).

Concluding Thought

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

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

Appendix D: Peer Grouping Methodology

References

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Appendix E: Terms and Abbreviations

Abbreviation	Definition
AA AS	<p>Associate of Arts Degree Associate of Science Degree</p> <p>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)</p>
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	<p data-bbox="824 275 1143 310">Bachelor of Arts Degree</p> <p data-bbox="824 346 1388 892">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)</p>
BS	<p data-bbox="824 1047 1187 1083">Bachelor of Science Degree</p> <p data-bbox="824 1083 1388 1629">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)</p>

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.
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)
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	We recognize there are other definitions for cohort, but for the purpose of this report, we are using the MIS definition, 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.

Appendix E: Terms and Abbreviations

Abbreviation	Definition
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.
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.

Appendix E: Terms and Abbreviations

Abbreviation	Definition
Enhanced noncredit courses (ENC)	<p>Courses that receive additional funding (per SB 361). The enhanced noncredit programs/sequences of courses are designed to achieve the following outcomes:</p> <ol style="list-style-type: none"> 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.
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
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
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, CCCCCO
SAAP	The Student Average Academic Preparation Index, created by CCCCCO, 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
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 <i>The California Community Colleges Taxonomy of Programs</i> , available at the CCCCCO 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	<p>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).</p> <p>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.</p>
UC	University of California
320 Report	Report used by districts to report FTES to CCCCCO Fiscal Services.

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 System 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.

Appendix F: Legislation Summary

(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

Appendix F: Legislation Summary

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.

Appendix F: Legislation Summary

(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 System 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

Appendix F: Legislation Summary

chancellor to withhold, delay, or reduce specified funds provided in the annual Budget Act to encourage district-level accountability efforts.

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

Appendix F: Legislation Summary

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.

(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 System 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,

Appendix F: Legislation Summary

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.

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 System Office provides below a summary of the presentation dates of the 2007 ARCC report to the colleges' boards of trustees. This documents the System's fulfillment of the above requirement for the 2007 ARCC Report.

	College Name	Date of College Presentation to its Board of Trustees	Date When Documentation Received by the CCCCO System Office
1	Allan Hancock College	6/19/2007	9/26/2007
2	American River College	3/9/2007	10/25/2007
3	Antelope Valley College	3/12/2007	10/25/2007
4	Bakersfield College	3/1/2007	4/25/2007
5	Barstow Community College	12/13/2007	12/14/2007
6	Berkeley City College	11/13/2007	1/11/2008
7	Butte College	4/25/2007	10/25/2007
8	Cabrillo College	5/7/2007	10/25/2007
9	Canada College	10/10/2007	10/25/2007
10	Cerritos College	9/19/2007	10/15/2007
11	Cerro Coso Community College	3/1/2007	4/25/2007
12	Chabot College	2/5/2008	3/3/2008
13	Chaffey College	2/22/2007	3/5/2007
14	Citrus College	2/6/2007	11/1/2007
15	City College of San Francisco	2/8/2007	5/1/2007
16	Coastline Community College	8/15/2007	10/10/2007
17	College of Alameda	11/13/2007	1/11/2008
18	College of Marin	4/17/2007	10/31/2007
19	College of San Mateo	10/10/2007	10/25/2007
20	College of the Canyons	4/11/2007	8/8/2007
21	College of the Desert	3/16/2007	10/11/2007
22	College of the Redwoods	5/1/2007	10/25/2007
23	College of the Sequoias	11/5/2007	12/13/2007
24	College of the Siskiyous	3/6/2007	10/3/2007
25	Columbia College	5/9/2007	6/14/2007
26	Compton Community Educational Center	5/21/2007	9/25/2007
27	Contra Costa College	5/30/2007	7/19/2007
28	Copper Mountain College	2/14/2008	3/20/2008
29	Cosumnes River College	3/9/2007	10/25/2007
30	Crafton Hills College	3/13/2008	3/20/2008
31	Cuesta College	2/7/2007	11/1/2007
32	Cuyamaca College	12/11/2007	1/24/2008
33	Cypress College	2/13/2007	2/14/2007
34	DeAnza College	6/4/2007	9/28/2007
35	Diablo Valley College	5/30/2007	7/19/2007

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 CCCCCO System Office
36	East Los Angeles College	6/27/2007	9/26/2007
37	El Camino College	5/21/2007	9/25/2007
38	Evergreen Valley College	2/12/2008	3/12/2008
39	Feather River College	5/24/2007	8/10/2007
40	Folsom Lake College	3/9/2007	10/25/2007
41	Foothill College	6/4/2007	9/28/2007
42	Fresno City College	4/3/2007	5/10/2007
43	Fullerton College	2/13/2007	2/14/2007
44	Gavilan College	4/10/2007	9/26/2007
45	Glendale Community College	1/24/2008	2/28/2008
46	Golden West College	8/15/2007	10/10/2007
47	Grossmont College	12/11/2007	1/24/2008
48	Hartnell College	9/13/2007	11/6/2007
49	Imperial Valley College	3/21/2007	10/30/2007
50	Irvine Valley College	11/13/2007	1/24/2008
51	Lake Tahoe Community College	2/13/2007	10/25/2007
52	Laney College	11/13/2007	1/11/2008
53	Las Positas College	2/5/2008	3/3/2008
54	Lassen College	2/26/2008	3/24/2008
55	Long Beach City College	7/10/2007	10/1/2007
56	Los Angeles City College	6/27/2007	9/26/2007
57	Los Angeles Harbor College	6/27/2007	9/26/2007
58	Los Angeles Mission College	6/27/2007	9/26/2007
59	Los Angeles Pierce College	6/27/2007	9/26/2007
60	Los Angeles Southwest College	6/27/2007	9/26/2007
61	Los Angeles Trade-Technical College	6/27/2007	9/26/2007
62	Los Angeles Valley College	6/27/2007	9/26/2007
63	Los Medanos College	5/30/2007	7/19/2007
64	Mendocino College	10/17/2007	11/19/2007
65	Merced College	3/6/2007	10/24/2007
66	Merritt College	11/13/2007	1/11/2008
67	MiraCosta College	2/20/2007	3/30/2007
68	Mission College	3/6/2008	3/19/2007
69	Modesto Junior College	5/9/2007	6/14/2007
70	Monterey Peninsula College	2/27/2007	5/17/2007

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	College Name	Date of College Presentation to its Board of Trustees	Date When Documentation Received by the CCCCCO System Office
71	Moorpark College	11/13/2007	1/26/2008
72	Mt. San Antonio College	2/28/2007	6/21/2007
73	Mt. San Jacinto College	10/10/2007	11/29/2007
74	Napa Valley College	3/8/2007	7/11/2007
75	Ohlone College	12/12/2007	1/17/2008
76	Orange Coast College	8/15/2007	10/10/2007
77	Oxnard College	11/13/2007	1/26/2008
78	Palo Verde College	2/26/2008	2/27/2008
79	Palomar College	3/13/2007	6/5/2007
80	Pasadena City College	2/21/2007	3/21/2007
81	Porterville College	3/1/2007	4/25/2007
82	Reedley College	4/3/2007	5/10/2007
83	Rio Hondo College	2/21/2007	9/25/2007
84	Riverside Community College	3/13/2007	4/25/2007
85	Sacramento City College	3/9/2007	10/25/2007
86	Saddleback College	11/13/2007	1/24/2008
87	San Bernardino Valley College	3/13/2008	3/20/2008
88	San Diego City College	2/7/2008	3/3/2008
89	San Diego Mesa College	2/7/2008	3/3/2008
90	San Diego Miramar College	2/7/2008	3/3/2008
91	San Joaquin Delta College	3/8/2007	8/8/2007
92	San Jose City College	2/12/2008	3/12/2008
93	Santa Ana College	12/10/2007	1/23/2008
94	Santa Barbara City College	4/12/2007	9/12/2007
95	Santa Monica College	11/6/2007	11/30/2007
96	Santa Rosa Junior College	3/13/2007	5/2/2007
97	Santiago Canyon College	12/10/2007	1/23/2008
98	Shasta College	1/17/2007	10/25/2007
99	Sierra College	3/13/2007	10/12/2007
100	Skyline College	10/10/2007	10/25/2007
101	Solano Community College	3/3/2007	11/6/2007
102	Southwestern College	2/13/2008	3/13/2008
103	Taft College	11/8/2007	1/28/2008
104	Ventura College	11/13/2007	1/26/2008
105	Victor Valley College	3/12/2008	3/20/2008
106	West Hills College	2/27/2007	5/30/2007
107	West Los Angeles College	6/27/2007	9/26/2007
108	West Valley College	3/6/2008	3/19/2008
109	Yuba College	4/11/2007	9/27/2007

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Appendix H: Acknowledgements

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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, System Office
Willard Hom, System Office

After the RP Group met to develop the initial accountability framework, the System 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 System Office convened the ARCC Technical Advisory Workgroup (TAG) in Fall 2005. The ARCC TAG helped to refine the metrics and format for the ARCC report. The ARCC TAG is comprised of both internal and external representatives from the community colleges, state government, and System Office staff.

ARCC Technical Advisory Workgroup

TAG Members from Community Colleges and State Government (The list below only represents the active participants in 2007)

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Appendix H: Acknowledgements

Other CCCCCO System Office Staff Who Contributed to the ARCC Report

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Bryan Miller (emeritus)