MAINTAINING OUR FOCUS: ACCOUNTABILITY REPORTING IN THE COMMUNITY COLLEGE ANNUAL REPORT 2009-10

10/23/2009

ACCOUNTABILITY REPORTING IN THE COMMUNITY COLLEGES (ARCC) 2009-10 ANNUAL REPORT

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EXECUTIVE SUMMARY

This report is divided into two sections. The first section presents the overview of ARCC and college performance on the ARCC measures. The second section presents information on local efforts to assess institutional effectiveness.

Synopsis of 2009-10 ARCC Performance
The 2009-10 ARCC report shows that Santa Monica College consistently demonstrates above average performance in relation to the state on four of the seven ARCC performance indicators. These indicators include: the student progress and achievement rate, the percent of students earning 30 units, the fall to fall persistence rate, and the improvement rate for ESL courses. When compared to previous performance, the college exhibits improved performance over the baseline year in the fall to fall persistence rate and the successful course completion rate in basic skills courses. The percentage of students successfully completing basic skills courses improved 1.1 percentage points over the baseline year. A slight increase, .4 percentage points, in fall to fall persistence was also observed.

Overall, college performance over the period can be characterized as relatively stable. The college continues to outperform the state on the majority of ARCC measures. The college continues to focus its attention on understanding and improving performance in two key areas: vocational education and basic skills.

Local Assessment of Institutional Effectiveness
Issues uncovered with the data informing the ARCC measures have led to the college furthering its understanding of its institutional effectiveness by using a comprehensive three component strategy which includes monitoring, impact assessment, and development. Each of these components works in concert with one another to provide a complete picture of the impact of programs and services on student outcomes.

Development is dependent upon building evaluation capacity among program stakeholders (i.e. providing program stakeholders with the tools they need to increase their understanding, interpretation, and utilization of data at the program level for the purpose of program improvement).

Monitoring, the act of tracking trends in effectiveness at the institutional level through reporting on key indicators, allows the institution to understand and describe trends in summary indicators over time and in relation to various benchmarks. This activity describes overall performance on measures of interest but does not directly connect program goals and activities with outcomes; it allows the institution to quickly summarize its performance and identify areas of strength as well as areas of improvement.

Impact assessment, or program evaluation, directly connect program goals and activities with program outcomes. As such, it represents a key component of a comprehensive institutional effectiveness strategy at SMC. Program monitoring and program impact activities work together to provide a complete picture of institutional performance.
Summary
At SMC, the presentation of ARCC measures as well as local measures of effectiveness have served as a starting point for engaging the campus community in dialogue about the meaning of performance measures and the effects of our local efforts to improve outcomes for all students. Discussions about instruction, support services, and the integration of support services and instruction have occurred across the campus. Specifically, these discussions have taken place and will continue to take place in the Career and Technical Education committee, the Basic Skills committee, the Program Review committee, the Student Learning Outcomes committee, and the Academic Senate, in addition to others. Local reports of effectiveness scheduled to begin in Fall 2010 and better connecting outcomes assessment with program review will more fully complete the cycle of inquiry with respect to student outcomes at SMC.

At SMC, the three-part institutional effectiveness strategy which includes performance monitoring, impact assessment, and developing evaluation capacity can be viewed as a mechanism that drives inquiry, understanding, and improvement. It has inspired understanding through the development of more in-depth and localized analyses, measures, and benchmarks that will more completely assess and describe the effects of programs and services. SMC is committed to continuing the process of understanding and improving student outcomes through its comprehensive three component institutional effectiveness strategy. As part of this process, the college will continue to develop, as needed and appropriate, supplemental data sources, analyses, and reporting mechanisms, the results of which will be used in an ongoing and systematic effort to improve programs and services that support student learning and achievement.
PURPOSE

The purpose of this narrative is to briefly demonstrate how ARCC along with other local assessment tools function as a mechanism to promote inquiry, drive change and program improvement at SMC. In particular, this narrative describes the ways in which both ARCC and local institutional effectiveness activities and tools have: 1) led to better understanding of issues related to performance on ARCC measures; 2) created opportunities for dialogue on topics related to student success and learning; and 3) contributed to new understandings that are reflected in institutional priorities.

The narrative begins with a brief description of ARCC, its measures, and a synopsis of the ARCC 2009-10 institutional performance. The synopsis of ARCC contained in this narrative describes two areas, basic skills and vocational education, in more detail because they were identified last year by the college as areas of focus and because they have been identified through data analysis as areas where richer understanding of performance can be achieved through local measures of effectiveness. The narrative concludes with a discussion of local institutional effectiveness efforts underway at SMC.

SECTION ONE -- ARCC OVERVIEW AND MEASURES

Accountability Reporting in the Community Colleges (ARCC) contains seven measures of student progress and achievement as they relate to the broad mission of the California Community Colleges to support transfer, degree and certificate completion, and basic skills. The measures developed for ARCC reflect a refinement of some of the measures from previous accountability initiatives, such as the Partnership for Excellence (PFE), as well as an expansive consultation process with education scholars and community college practitioners from the field.

It should also be noted that the measures developed for the ARCC system rely on a data collection and reporting process already in place in the California Community Colleges, specifically the Chancellor’s Office Management Information System (COMIS). As such, the measures developed for ARCC from the COMIS provide a useful starting point for discussions about state and local performance; however, they are limited in terms of providing meaningful
understanding of performance at the local level. To the extent that resources are available, meaningful understanding of performance and improvement at the local level requires that local institutions engage in supplemental data collection, analyses, and dialogue -- a process which began at SMC during 2007-08.

Since the pilot year (2007-08), there have been many colleges that have reported issues with ARCC data. One significant issue has been the coding of classes. This issue is significant because several ARCC measures (e.g. those related to basic skills, ESL, and vocational education) are defined in ways that rely on course coding schemes at the local level. For these measures, course coding schemes determine whether or not student enrollments in particular courses are counted for the purpose of ARCC. For example, when examining fluctuations between the 2007 and 2008 ARCC reports in the basic skills measures, SMC identified a course coding issue with its COMIS data. Specifically, data supplied for ARCC measures by SMC for the pilot year (2007) did not capture all of the basic skills courses offered by the college. This coding error was corrected by SMC during the statewide Curriculum Reporting in the Community Colleges (CRCC) project.

More recently, significant coding errors in local data related to the Basic Skills Improvement Rate were uncovered by the Institutional Research Office and Academic Affairs. Since the discovery of these errors, an action plan and timeline for correcting them has been developed and will be implemented during the Fall 2009 term. The errors discovered relate to the COMIS data element CB21, Course Level Prior to College Level Course, which functions under ARCC to provide a basis from which to judge sequential progress through the basic skills course sequence (i.e. improvement from one level to the next). Although the data element is used this way for the purposes of ARCC, it historically has not been used this way by SMC or other colleges around the state. As a result, coding issues with this data element have been the focus of local and statewide discussion. At SMC, it is believed that the coding errors related to this data element are substantial enough to render the ARCC measure Basic Skills Improvement Rate statistically invalid for SMC. Consequently, this measure is not discussed in this report.

It is important to understand that ARCC has illuminated weaknesses in the COMIS reporting mechanism. Through COMIS, data are collected at the local level and then aggregated at the state level. COMIS then, reflects the multiplicity of ways that colleges at the local level respond to their student populations, deliver services, and report their activities at the time in which data elements are created. In creating ARCC as a measurement system, the Chancellor’s Office recognized the inaccuracies present in COMIS data, particularly course coding data, and the imperative created by ARCC to standardize definitions and reporting. CRCC can be viewed as the first effort by the Chancellor’s Office to standardize reporting through COMIS and develop data at the state level that is valid and reliable. The issues with CB21 and the statewide effort underway to standardize coding of this data element can be viewed as another effort designed to make ARCC measures more accurate, valid, and reliable. At this time, the Chancellor’s Office verbally recognizes flaws and weaknesses in the ARCC data, but does not formally report on the reliability of the data that forms the basis of the ARCC performance monitoring system.
Additionally, in an effort to facilitate understanding of the ARCC data and avoid a mandated statewide ranking system of colleges, the Chancellor’s Office has developed peer college groupings for each of the ARCC measures. Theoretically, the groupings cluster colleges together that are more alike than different in terms of environmental characteristics demonstrated to have a statistically significant effect in predicting each of the outcome measures. As a result, peer groups vary by measure and may not conform to a college’s perception of its peers geographically or historically. It is important to note, that the Chancellor’s Office did not intend for the peer groupings to be used as a ranking system among the colleges.

It is also important to note that the peer groupings for SMC from 2007 to 2008 and 2008 to 2009 experienced fluctuation; i.e. the peer groups for each of the measures are different between all three reports. More specifically, between 2008 and 2009 the fluctuation in peer groupings for three of the measures for SMC were substantial (i.e. on at least three measures, there were only two to three colleges in common from one year to the next). At this time it is unclear why these fluctuations in peer groupings are consistently observed. The Chancellor’s Office reports that some of the fluctuations are due to colleges around the state revising and resubmitting their COMIS data. Currently, the Chancellor’s Office does not report on the reliability or stability of its statistical models for the peer groupings. Because of the instability of the peer groupings, this report focuses on comparisons between SMC and state performance, which can be considered average performance, as well as SMC’s performance over time on the ARCC measures.

Finally, ARCC is intended to provide indicators of system level performance not only to legislators and policy makers but to the general public as well. Consequently, the full report for the system (http://www.cccco.edu/Portals/4/TRIS/research/ARCC/arcc_2009_final.pdf) and a shorter report, which can be customized to include only Santa Monica College performance, (https://misweb.cccco.edu/arcc_reportsv1/seldist.aspx) are available online at the California Community College website. Appendix A also contains an excerpt from the SMC ARCC customized report that is readily accessible online at the web site referenced above.

The legislation for Accountability Reporting in the Community Colleges (ARCC) requires that a college’s local Board of Trustees annually review the college’s ARCC report. No action is required by the Board; this narrative, and the selection of material contained in Appendix A, fulfills this legislative requirement.

**Synopsis of 2009-10 ARCC Local Performance**

Local performance is best understood in three ways. First, it represents an individual college’s

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1 Personal email communication, 10/13/2009, Willard Hom, Director of Research and Accountability, California Community College Chancellor’s Office.
Maintaining Our Focus: Accountability Reporting in the Community College Annual Report 2009-10

contribution to the entire system’s performance. Second, local performance functions as a diagnostic tool by enabling colleges to understand their performance and engage in dialogue about program quality and opportunities for improvement. Finally, local performance is also understood within the context of local conditions. That is to say, contextual factors such as reductions or expansions of scheduled offerings (e.g. SMC’s significant reduction in course offerings during the 2003-2004 academic year) and the mix of program offerings and enrollment patterns can and do have an effect on local performance measures over time.

SMC Outperforms State Benchmarks in Four Key Measures

The 2009-10 ARCC report shows that Santa Monica College demonstrates above average performance in relation to the state on four of the seven performance indicators. These indicators include: the student progress and achievement rate, the percent of students earning 30 units, the fall to fall persistence rate, and the improvement rate for ESL courses. Additionally, historical analyses reveal that the college consistently exceeds state benchmarks on these measures.

Figure 1. Comparison of Local Performance to State Performance on the ARCC Student Progress and Achievement Measure.

As is evident from Figure 1, SMC outperforms the state on the student progress and achievement measure by nearly six percentage points for the most recent year for which data are available. This achievement should not be understated because the student progress and achievement rate can be viewed as the ultimate measure of success for a community college. It reflects the degree to which a college transfers students, prepares students for transfer, and facilitates degree and certificate completion for its students. Indeed, the consistent, above average performance on this measure is a significant achievement for SMC, a college that has a national reputation for
Another measure of importance for SMC is the fall to fall persistence rates of its students. Again, Figure 2 demonstrates that SMC consistently outperforms the state on this measure. SMC outperformed the state by nearly four percentage points on this measure in the most recent year for which data are available.

Figure 2. Comparison of Local Performance to State Performance on the ARCC Measure Fall to Fall Persistence Rate.

Consistent with the established body of scholarship in this area, above average progress and achievement and fall to fall persistence rates of SMC students can, in part, be attributed to the resources SMC invests in high quality instructional support programs and the implementation of innovative and effective student services programs. A recent study conducted by the Office of Institutional Research supports this finding. The study reveals the effect of a specific intervention designed to support student success and persistence -- the Counseling 20 course. Specifically, the study revealed that new students who enroll in the Counseling 20 course during their first term at SMC are 29.7% more likely to persist to the following fall term than students who do not enroll in the course when factors such as student background characteristics and academic experiences are held constant. (A copy of this report is available upon request from the Institutional Research Office).

Figures 3 and 4 present college performance in relation to the state on the percent of students earning at least 30 units as well as the ESL improvement rate.
Figure 3. Comparison of Local Performance to State Performance on the ARCC Measure
Percent of Students Earning at Least 30 Units.

Percent 30 Units

<table>
<thead>
<tr>
<th></th>
<th>00-01 to 05-06</th>
<th>01-02 to 06-07</th>
<th>02-03 to 07-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>70.30%</td>
<td>70.40%</td>
<td>71.20%</td>
</tr>
<tr>
<td>SMC</td>
<td>75.00%</td>
<td>74.90%</td>
<td>74.60%</td>
</tr>
</tbody>
</table>
Figure 4. Comparison of Local Performance to State Performance on the ARCC Measure ESL Improvement Rate*.

ESL Improvement Rate*

<table>
<thead>
<tr>
<th></th>
<th>03-04 to 05-06</th>
<th>04-05 to 06-07</th>
<th>05-06 to 07-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>0%</td>
<td>44.70%</td>
<td>51.20%</td>
</tr>
<tr>
<td>SMC</td>
<td>75.10%</td>
<td>71.70%</td>
<td>72.80%</td>
</tr>
</tbody>
</table>

With respect to all of these measures, SMC attributes its performance, in part, to its integration of high quality student support services with instruction; a well-established practice at SMC and one that is grounded in empirical research.

**Areas of Improved Performance: Fall to Fall Persistence Rate & Successful Course Completion Rate Basic Skills**

When compared to its previous performance, the college exhibits improved performance over the baseline year in the fall to fall persistence rate and the successful course completion rate in basic skills courses. Figures 5 and 6 present the historical performance of SMC on these measures.
The percentage of students successfully completing basic skills courses improved 1.1 percentage points over the baseline year. A slight increase, .4 percentage points, in fall to fall persistence was also observed.

Figure 5. Successful Course Completion Rate in Basic Skills Courses 2005-06 to 2007-08.

Figure 6. Fall to Fall Persistence Rates of SMC Students Fall 2004 through Fall 2008
Basic Skills Improvement Rate and Vocational Successful Course Completion Rate

The final two ARCC measures, the basic skills improvement rate and the vocational successful course completion rate, are discussed below.

BASIC SKILLS IMPROVEMENT RATE

With regard to SMC’s performance on the basic skills improvement rate, as was noted above, the college has uncovered significant coding errors with respect to this measure. The errors are believed to be substantial enough as to render this measure statistically invalid for the purpose of assessing performance at this time. Consequently, performance on this measure is not discussed in this report. The college has a plan, which is scheduled to be implemented this fall, to correct course coding errors in its data. Correcting these errors will involve revising course codes effective fall 2009 and is likely to involve correcting historical data as well. It is assumed that once the entire plan is executed, the college will be able to report and assess its performance on this measure.

CAREER AND TECHNICAL (VOCATIONAL) SUCCESSFUL COURSE COMPLETION RATE IN ARCC

There are also some important considerations to note with respect to college performance on the successful course completion rate in Career and Technical Education (CTE or vocational courses). Specifically, for the purpose of ARCC, the overall success rate in career technical (vocational) education classes is reported for the state for all courses coded as vocational. Because the overall success rate for the state is inclusive of every vocational course offered statewide, it represents a weighted average of performance across the state in all vocational classes.

Analysis of Local and State Enrollment Patterns in Vocational Courses

Table 1 presents the number and percent of Career and Technical Education (CTE) enrollments by T.O.P. (Taxonomy of Programs) Code2 for the state and SMC for fall 2007. As is highlighted in Table 1, the largest CTE programs in terms of enrollment at the state level are: Public and Protective Services (T.O.P Code 21 which includes police and fire science programs), Business and Management (T.O.P. Code 05), and Engineering and Industrial Technology (T.O.P. Code 09 which includes automotive and HVAC). These programs comprise 52.75% of the total CTE enrollments statewide. In contrast, the top three CTE programs in terms of enrollment at SMC are: Business and Management (T.O.P Code 05), Media and Communications (T.O.P. Code 06), and Information Technology (T.O.P Code 07). These programs comprise 58.77% of the total CTE enrollments at SMC. (see Appendix B for a sample listing of programs by each T.O.P. Code).

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2 Taxonomy of Programs Codes (T.O.P. Codes) are a mechanism to broadly classify specific programs within a disciplinary categories. A sample listing of programs within T.O.P. Codes is provided in Appendix B.
Table 1. Number and Percent of Enrollments in CTE Courses by T.O.P. Code Fall 2007

<table>
<thead>
<tr>
<th>TOP Code</th>
<th>State N</th>
<th>%</th>
<th>SMC N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 - Agriculture and Natural Resources</td>
<td>18161</td>
<td>2.44%</td>
<td>18</td>
<td>0.25%</td>
</tr>
<tr>
<td>02 - Architecture and Environmental Design</td>
<td>5955</td>
<td>0.80%</td>
<td>2661</td>
<td>14.93%</td>
</tr>
<tr>
<td>03 - Environmental Sciences and Technologies</td>
<td>758</td>
<td>0.10%</td>
<td>44</td>
<td>0.25%</td>
</tr>
<tr>
<td>04 - Biological Sciences</td>
<td>1650</td>
<td>0.22%</td>
<td>5203</td>
<td>29.19%</td>
</tr>
<tr>
<td>05 - Business and Management</td>
<td>132288</td>
<td>17.79%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>06 - Media and Communications</td>
<td>24270</td>
<td>3.26%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>07 - Information Technology</td>
<td>49175</td>
<td>6.61%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>08 - Education</td>
<td>8083</td>
<td>1.09%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>09 - Engineering and Industrial Technologies</td>
<td>114205</td>
<td>15.35%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>10 - Fine and Applied Arts</td>
<td>21789</td>
<td>2.93%</td>
<td>1836</td>
<td>10.30%</td>
</tr>
<tr>
<td>11 - Foreign Language</td>
<td>36</td>
<td>0.00%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>12 - Health</td>
<td>96149</td>
<td>12.93%</td>
<td>1836</td>
<td>10.30%</td>
</tr>
<tr>
<td>13 - Family and Consumer Sciences</td>
<td>92732</td>
<td>12.47%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>14 - Law</td>
<td>7864</td>
<td>1.06%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>15 - Humanities</td>
<td>79</td>
<td>0.01%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>16 - Library Science</td>
<td>764</td>
<td>0.10%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>17 - Mathematics</td>
<td>383</td>
<td>0.05%</td>
<td>17</td>
<td>0.10%</td>
</tr>
<tr>
<td>19 - Physical Sciences</td>
<td>21</td>
<td>0.00%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>20 - Psychology</td>
<td>295</td>
<td>0.04%</td>
<td>39</td>
<td>0.22%</td>
</tr>
<tr>
<td>21 - Public and Protective Services</td>
<td>145886</td>
<td>19.61%</td>
<td>2611</td>
<td>14.65%</td>
</tr>
<tr>
<td>22 - Social Sciences</td>
<td>860</td>
<td>0.12%</td>
<td>39</td>
<td>0.22%</td>
</tr>
<tr>
<td>30 - Commercial Services</td>
<td>12542</td>
<td>1.69%</td>
<td>39</td>
<td>0.22%</td>
</tr>
<tr>
<td>49 - Interdisciplinary Studies</td>
<td>9841</td>
<td>1.32%</td>
<td>39</td>
<td>0.22%</td>
</tr>
<tr>
<td>Total</td>
<td>743786</td>
<td>100.00%</td>
<td>17827</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: Personal e-mail communication, October 13, 2009, Terrence Willett, Director of Research, CalPASS and CalPASS SMC datamart.

Table 2 presents the success rates by program for fall 2007 for the state and SMC. Overall, success rates in CTE courses statewide are 75.85% compared to 65.72% for SMC. However, in analyzing local performance in CTE courses it is important to look programatically rather than at overall rates because success rates vary substantially by program, not all colleges offer all programs, and the overall success rates both locally and at the state level represent a weighted average; i.e. the overall success rate both locally and at the state level are weighted by the number of enrollments in particular types of programs which have variable success rates (see Tables 1 and 2). If performance is only assessed by comparing overall success rates, as is the case with the ARCC measure for CTE, then colleges that do not offer large programs with higher success rates are disadvantaged. Comparisons then, of overall local performance to overall state performance present an inaccurate picture of college performance with respect to this ARCC.
measure because the number of enrollments within programs at the state level is substantially different from the number of enrollments within programs at SMC. As a result, the weighted average does not provide a reasonable or representative benchmark on which to base judgments about local performance because it does not take into consideration the types of programs offered locally or the number of enrollments in programs offered locally. For example, SMC does not offer some of the programs included in the state figure and SMC offers some of the same programs but the balance of enrollments are weighted differently than those of the state.

Table 2. Successful Course Completion Rates by T.O.P. Code Fall 2007

<table>
<thead>
<tr>
<th>TOP Code</th>
<th>State Success Rate</th>
<th>SMC Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 - Agriculture and Natural Resources</td>
<td>77.34%</td>
<td></td>
</tr>
<tr>
<td>02 - Architecture and Environmental Design</td>
<td>72.44%</td>
<td></td>
</tr>
<tr>
<td>03 - Environmental Sciences and Technologies</td>
<td>85.62%</td>
<td></td>
</tr>
<tr>
<td>04 - Biological Sciences</td>
<td>70.48%</td>
<td>84.09%</td>
</tr>
<tr>
<td>05 - Business and Management</td>
<td>67.16%</td>
<td>60.73%</td>
</tr>
<tr>
<td>06 - Media and Communications</td>
<td>69.25%</td>
<td>69.32%</td>
</tr>
<tr>
<td>07 - Information Technology</td>
<td>63.21%</td>
<td>63.23%</td>
</tr>
<tr>
<td>08 - Education</td>
<td>71.77%</td>
<td></td>
</tr>
<tr>
<td>09 - Engineering and Industrial Technologies</td>
<td>81.45%</td>
<td></td>
</tr>
<tr>
<td>10 - Fine and Applied Arts</td>
<td>68.90%</td>
<td>63.56%</td>
</tr>
<tr>
<td>11 - Foreign Language</td>
<td>88.89%</td>
<td></td>
</tr>
<tr>
<td>12 - Health</td>
<td>83.89%</td>
<td>79.66%</td>
</tr>
<tr>
<td>13 - Family and Consumer Sciences</td>
<td>73.38%</td>
<td>68.60%</td>
</tr>
<tr>
<td>14 - Law</td>
<td>72.06%</td>
<td></td>
</tr>
<tr>
<td>15 - Humanities</td>
<td>69.62%</td>
<td></td>
</tr>
<tr>
<td>16 - Library Science</td>
<td>81.81%</td>
<td></td>
</tr>
<tr>
<td>17 - Mathematics</td>
<td>62.92%</td>
<td>47.06%</td>
</tr>
<tr>
<td>19 - Physical Sciences</td>
<td>80.95%</td>
<td></td>
</tr>
<tr>
<td>20 - Psychology</td>
<td>73.22%</td>
<td>74.36%</td>
</tr>
<tr>
<td>21 - Public and Protective Services</td>
<td>82.99%</td>
<td></td>
</tr>
<tr>
<td>22 - Social Sciences</td>
<td>71.05%</td>
<td>75.00%</td>
</tr>
<tr>
<td>30 - Commercial Services</td>
<td>80.68%</td>
<td>68.77%</td>
</tr>
<tr>
<td>49 - Interdisciplinary Studies</td>
<td>69.11%</td>
<td>55.95%</td>
</tr>
<tr>
<td>Total</td>
<td>75.95%</td>
<td>65.72%</td>
</tr>
</tbody>
</table>

Source: Personal e-mail communication, October 13, 2009, Terrence Willett, Director of Research, CalPASS and CalPASS SMC datamart.

With respect to this ARCC measure, it is likely to be a more productive and beneficial process if SMC continues to monitor and track its performance for CTE programs and develop plans for improvement that are programmatically based rather than based on comparisons to overall
performance benchmarks. A better benchmark from which to judge local performance may be to use comparisons of local level program performance to state level program performance.

Summary of Performance on ARCC Measures

Overall, college performance over the period can be characterized as better than the state on the majority of ARCC measures and improved over the baseline year in the area of basic skills successful course completion rates. The college continues to focus its attention on understanding and improving performance in two key areas: vocational education and basic skills.

To support local assessment of institutional effectiveness, the college is engaged in three types of evaluation activities – program monitoring, program impact, and program development. These activities are described in the next section.
SECTION TWO -- LOCAL ASSESSMENT OF INSTITUTIONAL EFFECTIVENESS

Given some of the issues uncovered with the data informing the ARCC measures, the college is continuing to further its understanding of its institutional effectiveness by using a comprehensive three component strategy which includes monitoring, impact assessment, and development. Figure 7 visually summarizes each component of the institutional effectiveness program at SMC and describes each component’s goals. This section of the report discusses each of these components in detail.

Figure 7. Three Component Model for Assessing Institutional Effectiveness at SMC

Development: Building Evaluation Capacity through Training

At SMC, institutional effectiveness is viewed as a shared responsibility among program stakeholders which includes instructional and non-instructional programs. As such, development with respect to local assessment of institutional effectiveness is also dependent upon building evaluation capacity among program stakeholders (i.e. providing program stakeholders with the tools they need to increase their understanding, interpretation, and utilization of data at the program level for the purpose of program improvement). Figure 8 visually outlines the
development component of the three-part institutional effectiveness strategy at SMC by describing the goals, participants, measures, reports, and expectations associated with this component.

**Figure 8. Description of the Development Component of the Local Institutional Effectiveness Strategy.**

- **Goal:** Increase understanding, interpretation, and utilization of data by program staff for the purpose of program improvement.

- **Who:** Research Office in collaboration with Program Review Committee, Student and Institutional Learning Outcomes Committee, Department Chairs, instructional and non-instructional program stakeholders.

- **Measures:**
  - Knowledge of data available, types of research designs, services of research office, and types of analyses
  - Participation levels and satisfaction with workshops and training

- **Reports:**
  - Annual Report Institutional Research (Spring)
  - Institutional Research Program Review

- **Expectations:**
  - As understanding and ability to interpret data increase, programs will be better able to identify issues and make better informed decisions at the program level.

Building evaluation capacity is an important component of SMC's institutional effectiveness effort and involves collaboration between the Research Office, the Program Review Committee, the Student and Institutional Learning Outcomes Committee, Department Chairs, and program stakeholders. As well, SMC has a tradition of program-based assessments accomplished largely through its faculty-driven program review process. Collaboration between the Program Review
Committee and the Institutional Research Office has led to a higher degree of consensus about the need to achieve some standardization regarding measures of effectiveness at the program level. The Research Office will be making a recommendation to the Program Review Committee regarding these measures (details are described in the Impact section of this report). Additionally, collaboration has led to the development and implementation of staff development workshops in the areas of outcomes assessment. Workshops and training related to data mining, data analysis, and data interpretation are planned for the spring.

With regard to outcomes assessment, during 2008-09 the Office of Institutional Research conducted a series of staff development workshops for instructional, student support, and non-instructional programs related to local measures of effectiveness, specifically course and program level outcomes assessment and measurement. The result of these workshops has been: 1) institutional consensus about the characteristics of robust outcomes statements, 2) revisions and improvements of outcomes statements by many programs, and 3) the establishment of the Student and Institutional Learning Outcomes Committee as the expert in evaluating the quality of outcomes statements and assessment activities. During 2009-10 the Student and Institutional Learning Outcomes Committee is working with Information Technology to develop an electronic infrastructure to collect the results of course and program level outcomes assessment data.

Additionally, during fall 2009, a datamart, developed by CalPASS (California Partnership for Achieving Student Success), and populated with SMC data, has been made available to the campus. The datamart allows programs to examine their own data in terms of student demographics, enrollment trends, and success and retention rates by a variety of demographic characteristics. The datamart has been demonstrated to Senior Staff, at a Flex Day workshop, the Program Review Committee, the Career and Technical Education Committee, and the Student and Institutional Learning Outcomes Committee. Additional presentations are planned for the Department Chairs and other program stakeholders. Training in the use of the datamart is in development so that effective uses of the data in terms of analysis for program improvement can be achieved. It is anticipated that the datamart will serve as the primary data analysis tool supporting program review for instructional programs and will serve as a model for the development of similar datamarts for non-instructional programs and course and program level outcomes assessment.

**Monitoring: Local Measures of Institutional Effectiveness**

Program monitoring, the act of tracking trends in effectiveness at the institutional level through reporting on key indicators, allows the institution to understand and describe trends in summary indicators over time and in relation to various benchmarks. This activity describes overall performance on measures of interest but does not directly connect program goals and activities with outcomes; it allows the institution to quickly summarize its performance and identify areas of strength as well as areas of improvement. As such, program monitoring systems, such as ARCC or locally developed systems, usually summarize and describe performance on achievement oriented
measures, which are often categorized as indirect measures of student learning. Program monitoring activities, such as institutional effectiveness reports and scorecards, are useful to quickly summarize performance as well as to focus the institution on performance and assessment at the program level. Program monitoring works in concert with program impact assessments to provide a complete picture of the effects of institutional efforts on student learning and achievement.

Figure 9 summarizes the goals, participants, measures, reports, and expectations associated with the program monitoring component of SMC’s institutional effectiveness program. A full description of the proposed local program monitoring system, or institutional effectiveness report, appears below Figure 9.

**Figure 9. Description of the Monitoring Component of the Local Institutional Effectiveness Strategy.**

<table>
<thead>
<tr>
<th>Goal</th>
<th>• Quickly summarize areas of strength and areas of improvement on local measures.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who</td>
<td>• Research office in collaboration with Program Review Committee, Student and Institutional learning Outcomes Committee, District Planning and Advisory Committee, Board of Trustees</td>
</tr>
</tbody>
</table>
| Measures           | • Transfer/Completion Rates  
                      • Basic Skills  
                      • CTE  
                      • ILOs  
                      • Student Development  |
| Reports            | • Annual  |
| Expectations       | • Performance is expected to influence decision-making with respect to institutional priorities, initiatives, and resources  
                      • Performance will focus attention on impact assessment activities for specific areas  |
Institutional Effectiveness Reporting at SMC

The first institutional effectiveness report is scheduled for publication in Fall 2010. Several factors have guided the development of the proposed measures for the first institutional effectiveness report at SMC. First, the Research Advisory Committee reviewed other models of institutional effectiveness reports from other community colleges; including one from Richland Community College. The committee identified several key measures of interest for SMC related to student progress and achievement. These effectiveness measures met the criteria of being consistent with other models as well as being comprised of data that was available for analysis. Analyses of local data were also conducted by the Institutional Research Office to understand performance trends and gaps among different groups of students. Specifically, analyses of local performance in the areas of basic skills and career and technical education were conducted in order to understand trends and gaps in performance for these students. Additionally, data from system level efforts where valid and relevant were also incorporated in an effort to connect local understanding with the broader goals of the California Community College system. Finally, two areas, student development and institutional learning outcomes were also considered. These two areas are in the development stage until consensus can be achieved regarding standard measures of performance and data becomes more accessible. Efforts to develop data in these areas are ongoing and these components of the institutional effectiveness report are likely to be reported at a later time (beyond Fall 2010). Figure 10 presents the proposed measures for the first annual institutional effectiveness report scheduled to be produced in Fall 2010.

It is anticipated that during 2009-2010, indicators of institutional effectiveness will be further reviewed, measures refined, and then shared more broadly across campus so that consensus regarding measures of effectiveness for the institution can be achieved. The institutional effectiveness report is envisioned as a dynamic and flexible document. One that is open to revision based upon trends in local data and performance as well as the identified imperatives of local governance groups.
Program impact studies, or program evaluations, directly connect program goals and activities with program outcomes. As such, they represent a key component of a comprehensive institutional effectiveness strategy at SMC. Program monitoring and program impact activities work together to provide a complete picture of institutional performance. Figure 11 describes the goal, participants, measures, reports, and expectations for the impact assessment component of SMC’s three-part institutional effectiveness strategy.
Figure 11. Description of the Monitoring Component of the Local Institutional Effectiveness Strategy.

- **Goal**: Connects program goals and activities to outcomes.

- **Who**: Research office in collaboration with Program Review Committee, Student and Institutional learning Outcomes Committee, instructional and non-instructional program stakeholders.

- **Measures**: Standard achievement measures adopted by Program Review Committee, Course and program outcomes adopted by program stakeholders.

- **Reports**: Connected to program review cycle.

- **Expectations**: Assessment is ongoing and continuous, Performance is expected to influence decision-making at the program level, improvements will be implemented, and re-assessed at regular intervals.

At SMC, the assessment of program impact is largely accomplished through the college’s systematic, faculty-driven program review process. During program review, instructional and non-instructional programs are expected to engage in self-reflective dialogue and analysis in order to identify areas of excellence and improvement and understand their effectiveness in achieving their stated course or program outcomes. This self-reflection is also expected to be data driven.

It is also true that among programs and program staff there appears to be varying levels of knowledge with respect to available data, data mining, outcomes assessment, analysis, and data interpretation. As a result, the Institutional Research Office, in collaboration with campus...
committees such as Program Review, Student and Institutional Learning Outcomes, and the Career and Technical Education Committee, has undertaken the effort to build evaluation capacity among faculty and staff. Development of evaluation capacity works in concert with program impact assessment and is critical to its successful implementation and execution. As part of the effort to further develop evaluation capacity and thus, strengthen impact assessment across the institution, the Institutional Research Office will also be making a recommendation to the Program Review Committee about typical data elements that should be included in program review reports. Figure 12 describes some of the proposed measures that will be recommended to the Program Review Committee.

In addition to Program Review, the Institutional Research Office undertakes studies of program impact that are more complex in nature and require more sophisticated research designs and statistical analysis techniques. Some examples of these types of program impact studies conducted by the Research Office appear below.

**Figure 12. Proposed Standard Data Elements for Program Review Reports.**

<table>
<thead>
<tr>
<th>Achievement Outcomes</th>
<th>Learning/Unit Outcomes</th>
<th>Enrollment Trends</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Successful Course Completion Rates</td>
<td>• Course Level</td>
<td>• Demographics</td>
</tr>
<tr>
<td>• Historically under-represented</td>
<td>• Program Level</td>
<td>• FTES</td>
</tr>
<tr>
<td>• Course Retention Rate</td>
<td>• Institutional Level</td>
<td>• Number of Sections Offered</td>
</tr>
<tr>
<td>• Historically under-represented</td>
<td></td>
<td>• Average Section Size</td>
</tr>
<tr>
<td>• Degrees and Certificates Completed</td>
<td></td>
<td>• Number of Students Served/Participants</td>
</tr>
</tbody>
</table>

During 2008-09, the Office of Institutional Research began working with the Basic Skills committee to identify themes and trends in the Basic Skills Initiative (BSI) program activities developed the previous year in an effort to identify how the program activities support the overarching goals of the program. Once consensus is achieved regarding the overarching goals of the program, measures, and program activities, a program evaluation can be designed and implemented. This effort is ongoing.

Additionally, during the summer of 2009, the Institutional Research Office completed several...
studies of the impact of student support services programs on student achievement and persistence. Two of these studies are of particular importance and significance in assessing local effectiveness of these programs and services. The first study examined the effects of enrolling in the Counseling 20 course during the first term as a new student on first semester GPA and fall to fall persistence. This study revealed that while Counseling 20 demonstrated no statistically significant effect on first term GPA once the variance for student characteristics, academic experiences, and participation in other student support services was accounted for, enrolling in Counseling 20 did exert a significant effect on the fall to fall persistence of new students. Specifically, once the effects of student characteristics, academic experiences, and student support services variables were accounted for, new students who enrolled in Counseling 20 during their first term were 29.7% more likely to persist to the following fall term than students who did not enroll in Counseling 20. Additionally, participation in student support services programs explained roughly seven percent of the variance in first-term GPA of new students; i.e. participation in several student support programs and services exerted positive effects on first-term GPA.

A study of the effects of the Summer Bridge program was also conducted by the Institutional Research Office this summer. This study reveals that the Summer Bridge program is successful in accomplishing three key objectives; two related to student engagement and one related to learning strategies. Specifically, students who participated in Summer Bridge demonstrated improvement in feeling accepted and connected to the campus as well as peer to peer interactions; i.e. students who participated in Summer Bridge were more likely to feel accepted and connected to SMC as well as have increased peer to peer social interaction outside of the classroom; factors empirically demonstrated to exert positive effects on student persistence. Also, students who completed Summer Bridge were more aware of their performance in class and more likely to engage in self-regulated learning strategies.

Taken together, the Counseling 20 and Summer Bridge studies, these two studies demonstrate the importance and effectiveness of student support services at SMC. More specifically, these studies provide an empirical basis from which to understand the effects of support services on student engagement and learning and that these effects are related to student achievement and persistence. That is to say, student support services operate on achievement and persistence, indirectly, through engagement and learning strategies, and that these effects in turn exert effects on achievement and persistence of students. The Office of Institutional Research plans to work with Student Affairs to further develop a research agenda related to the effects of its programs and services that is also connected to these programs’ outcomes assessment efforts. In this way, the direct effects of these programs and services can be better assessed and monitored.

CONCLUSION
At SMC, the presentation of ARCC measures as well as local measures of effectiveness have
served as a starting point for engaging the campus community in dialogue about the meaning of performance measures and the effects of our local efforts to improve outcomes for all students. Discussions about instruction, support services, and the integration of support services and instruction have occurred across the campus. Specifically, these discussions have taken place and will continue to take place in the Career and Technical Education committee, the Basic Skills committee, the Program Review committee, the Student Learning Outcomes committee, and the Academic Senate, in addition to others. Local reports of effectiveness scheduled to begin in Fall 2010 and better connecting outcomes assessment with program review will more fully complete the cycle of inquiry with respect to student outcomes at SMC.

At SMC, the three-part institutional effectiveness strategy which includes performance monitoring, impact assessment, and developing evaluation capacity can be viewed as a mechanism that drives inquiry, understanding, and improvement. It has inspired understanding through the development of more in-depth and localized analyses, measures, and benchmarks that will more completely assess and describe the effects of programs and services. SMC is committed to continuing the process of understanding and improving student outcomes through its comprehensive three component institutional effectiveness strategy. As part of this process, the college will continue to develop, as needed and appropriate, supplemental data sources, analyses, and reporting mechanisms, the results of which will be used in an ongoing and systematic effort to improve programs and services that support student learning and achievement.
APPENDIX A – LOCAL PERFORMANCE REPORT
### 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.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Progress and Achievement Rate</td>
<td>58.7%</td>
<td>57.3%</td>
<td>57.5%</td>
</tr>
</tbody>
</table>

### 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.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Students Who Earned at Least 30 Units</td>
<td>75.0%</td>
<td>74.9%</td>
<td>74.6%</td>
</tr>
</tbody>
</table>

### 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.)

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Fall 2004 to Fall 2005</th>
<th>Fall 2005 to Fall 2006</th>
<th>Fall 2006 to Fall 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence Rate</td>
<td>72.8%</td>
<td>71.9%</td>
<td>73.2%</td>
</tr>
</tbody>
</table>

NA: This performance indicator is not applicable for schools of continuing education.
Student Progress and Achievement: Vocational/Occupational/Workforce Development

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Successful Course Completion Rate for Vocational Courses</td>
<td>67.6%</td>
<td>67.8%</td>
<td>67.1%</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Successful Course Completion Rate for Basic Skills Courses</td>
<td>53.7%</td>
<td>53.2%</td>
<td>54.8%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL Improvement Rate</td>
<td>75.1%</td>
<td>71.7%</td>
<td>72.8%</td>
</tr>
<tr>
<td>Basic Skills Improvement Rate</td>
<td>50.7%</td>
<td>46.2%</td>
<td>45.8%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CDCP Progress and Achievement Rate</td>
<td>4.8%</td>
<td>.%</td>
<td>15.3%</td>
</tr>
</tbody>
</table>

Blank cell (% only) = No CDCP data for cohort (college may not have CDCP courses) 0% in cell = CDCP cohort data, but no outcome data as of report date.

NA: This performance indicator is not applicable for schools of continuing education.
Table 1.7: Annual Unduplicated Headcount and Full-Time Equivalent Students (FTES)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Unduplicated Headcount</td>
<td>49,528</td>
<td>49,942</td>
<td>51,348</td>
</tr>
<tr>
<td>Full-Time Equivalent Students (FTES)*</td>
<td>21,316</td>
<td>22,074</td>
<td>18,843</td>
</tr>
</tbody>
</table>

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.


Table 1.8: Age of Students at Enrollment

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19 or less</td>
<td>30.5%</td>
<td>30.4%</td>
<td>28.2%</td>
</tr>
<tr>
<td>20 - 24</td>
<td>30.5%</td>
<td>30.7%</td>
<td>31.5%</td>
</tr>
<tr>
<td>25 - 49</td>
<td>29.1%</td>
<td>28.6%</td>
<td>30.0%</td>
</tr>
<tr>
<td>Over 49</td>
<td>9.9%</td>
<td>10.2%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Unknown</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Source: Chancellor's Office, Management Information System

Table 1.9: Gender of Students

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>58.8%</td>
<td>58.8%</td>
<td>58.4%</td>
</tr>
<tr>
<td>Male</td>
<td>41.1%</td>
<td>41.2%</td>
<td>41.6%</td>
</tr>
<tr>
<td>Unknown</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Source: Chancellor's Office, Management Information System
### Table 1.10:
Ethnicity of Students

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>10.5%</td>
<td>10.2%</td>
<td>10.1%</td>
</tr>
<tr>
<td>American Indian/Alaskan Native</td>
<td>0.5%</td>
<td>0.5%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Asian</td>
<td>15.7%</td>
<td>16.0%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Filipino</td>
<td>2.6%</td>
<td>2.5%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>23.3%</td>
<td>23.0%</td>
<td>22.3%</td>
</tr>
<tr>
<td>Other Non-White</td>
<td>2.9%</td>
<td>2.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>0.6%</td>
<td>0.6%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Unknown/Non-Respondent</td>
<td>9.4%</td>
<td>9.4%</td>
<td>9.6%</td>
</tr>
<tr>
<td>White Non-Hispanic</td>
<td>34.5%</td>
<td>35.0%</td>
<td>35.4%</td>
</tr>
</tbody>
</table>

Source: Chancellor’s Office, Management Information System
Table 1.11: Peer Grouping

<table>
<thead>
<tr>
<th>Indicator</th>
<th>College’s Rate</th>
<th>Peer Group Average</th>
<th>Peer Group Low</th>
<th>Peer Group High</th>
<th>Peer Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>A  Student Progress and Achievement Rate</td>
<td>57.5</td>
<td>58.8</td>
<td>51.3</td>
<td>69.3</td>
<td>A2</td>
</tr>
<tr>
<td>B  Percent of Students Who Earned at Least 30 Units</td>
<td>74.6</td>
<td>73.9</td>
<td>67.9</td>
<td>82.7</td>
<td>B4</td>
</tr>
<tr>
<td>C  Persistence Rate</td>
<td>73.2</td>
<td>72.5</td>
<td>67.9</td>
<td>77.8</td>
<td>C2</td>
</tr>
<tr>
<td>D  Annual Successful Course Completion Rate for Credit Vocational Courses</td>
<td>67.1</td>
<td>74.5</td>
<td>67.0</td>
<td>85.4</td>
<td>D2</td>
</tr>
<tr>
<td>E  Annual Successful Course Completion Rate for Credit Basic Skills Courses</td>
<td>54.8</td>
<td>59.1</td>
<td>48.6</td>
<td>65.7</td>
<td>E5</td>
</tr>
<tr>
<td>F  Improvement Rate for Credit Basic Skills Courses</td>
<td>45.8</td>
<td>48.3</td>
<td>31.4</td>
<td>64.6</td>
<td>F1</td>
</tr>
<tr>
<td>G  Improvement Rate for Credit ESL Courses</td>
<td>72.8</td>
<td>58.4</td>
<td>33.1</td>
<td>79.2</td>
<td>G5</td>
</tr>
</tbody>
</table>

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.
Established in 1929, Santa Monica College serves a diverse population of approximately 51,000 students annually: including California residents, out-of-state, and international students. The college offers more than 80 fields of study and has one of the strongest reputations for transfer in California. The college transfers the highest number of students in total to the University of California, the California State University, the University of Southern California and other four-year universities.

Santa Monica College demonstrates above average performance in relation to its peers on three of the seven college performance indicators. These indicators include: percent of students earning 30 units, fall to fall persistence rate, and ESL improvement rate. Additionally, the college exhibits improved performance over the baseline year in the fall to fall persistence rate and in the basic skills successful course completion rate.

SMC’s above average performance on several measures is related to its tradition of integrating student support services with instruction. Counseling programs focusing on the first year, including the Welcome Center and First Year Institute, and a Student Success Seminar course, assist students through the transition to the college as well as with proper educational planning to meet future goals. The college offers over 19 different specialized counseling programs such as the Latino Center, the African American Collegiate Center, specialized financial aid counselors, and a Scholars program. Above average progress and achievement rates are attributable to the resources invested in student success, high quality instruction and instructional support, and the implementation of innovative and effective student services.

Overall, the trend in college performance on most measures has been relatively stable with only slight fluctuations from last year and is good in relation to its peers. Given the performance measures, the college is continuing to devote more attention to vocational education and basic skills. Revitalization efforts continue in the area of vocational education, and the college is actively pursuing efforts to align vocational programs with community needs and provide relevant and effective support services for vocational students.

Positively, the college experienced a nearly one percent increase in the basic skills successful completion rate over the baseline year. Like other colleges, SMC has experienced increases in the number of students assessing into basic skills English and math courses. Between fall 2004 and fall 2007, the number of students assessing into these courses increased by 30%. The college continues to expand access to instruction for these students and address student outcomes through various student support and instructional initiatives. In keeping with what is known about best practices in this arena, the college has recently developed a Director of Student Success Programs position to coordinate and provide leadership in developing basic skills programs and services for students. It is anticipated that high coordination and focused attention on these students’ needs will continue to result in improved outcomes for students. As well, the college will undertake an in-depth examination of its course coding processes to ensure accuracy of course coding and data collection related to ARCC measures in these areas.
APPENDIX B -- SAMPLE DISCIPLINES WITHIN TAXONOMY OF PROGRAMS (T.O.P.) CODES
TOP 05 – Business and Management

Instructional programs that prepare individuals for a variety of activities in planning, organizing, directing, and managing all business office systems and procedures.

* 0501.00 – Business and Commerce, General

Processes, principles, and procedures of purchasing, selling, producing, and interchanging goods, commodities, and services to prepare a person for a position of responsibility, management, and/or ownership.

* 0502.00 – Accounting

Procedures to systematize information about transactions and activities into accounts and quantitative reports to verify accuracy of data by applying accounting, internal reporting, and decision making principles. Includes accounting and financial reporting that assists in making internal management decisions.

* 0502.10 – Tax Studies

Tax preparation and tax management services for individuals and businesses, including individual and business income tax preparation, and tax planning.

* 0504.00 – Banking and Finance

Financial sectors of the general economy to prepare individuals to engage in financial or banking services. Includes bank management, investments, and loan analysis and management.

* 0505.00 – Business Administration

Programs designed to give a broad, balanced introduction to professional careers in business, usually including business law, economics, mathematics, managerial accounting and computer systems. Includes transfer programs.
* 0506.00 – Business Management
Planning, organizing, directing, and controlling business operations. Includes various theories, tools, and practical applications used to maintain business sustainability through the management of capital, financial, and human resources.

* 0506.30 – Management Development and Supervision
Supervising employees; budgeting, analysis, and coordinating clerical activities; evaluating, organizing, and revising office operations; design of facilities to provide maximum production; evaluating employee records; and coordinating activities of clerical departments and workers, dispute resolution, and mediation.

* 0506.40 – Small Business and Entrepreneurship
Principles, practices, and strategies of small business wholesale, retail, or service operations for owners/managers, and marketing principles and methods applicable to developing businesses.

* 0506.50 – Retail Store Operations and Management
Principles and methods of retail store operations and management, including department stores and supermarkets.

* 0508.00 – International Business and Trade
Principles of managing a business in an international context, and of exporting or importing of industrial or consumer goods in world markets. Includes trade regulations and controls, foreign trade operations, locating markets, negotiation practices, monetary issues, and international law and public relations.

* 0509.00 – Marketing and Distribution
Marketing functions and tasks that facilitate the flow of goods and services to customers and/or ultimate consumers.
* 0509.10 – Advertising

Describes the creation, execution, transmission, and evaluation of commercial messages concerned with the promotion and sale of products and services.

* 0509.20 – Purchasing

The purchase of machinery, raw materials, and product components for manufacturing firms; office supplies, furniture, and business machines for a place of business; or the supplies and equipment needed to conduct a retail or service business.

* 0509.40 – Sales and Salesmanship

Sales functions and tasks generally applicable to any marketing environment, including retailing, sales, and customer service.

* 0509.60 – Display

Creation of products or institutional displays and exhibits for the purpose of stimulating sales and goodwill.

* 0509.70 – E-Commerce (business emphasis)

Programs that combine marketing and management principles with technical applications of the Internet and World Wide Web, with main emphasis on business principles.

* 0510.00 – Logistics and Materials Transportation

Theory, principles, functions, and procedures for the orderly and economic receiving, manufacturing, shipping, and servicing of products or services.

* 0511.00 – Real Estate
Theory and techniques of buying, selling, appraising, renting, managing, and leasing real property. Includes marketing, financing government regulations, and legal aspects of real estate and land economics.

* 0511.10 – Escrow
Principles and methods of real estate escrow and title company operations.

* 0512.00 – Insurance
Risk analysis and personal and/or business insurance and their application in such things as life, disability, property, liability, and fiduciary trust and annuity underwriting.

* 0514.00 – Office Technology/Office Computer Applications
Recording and disseminating of information, by manual and/or electronic means, including administrative office practices (keyboarding, computer literacy/applications, internet usage, e-mailing, scheduling, etc.), global concepts, and office management skills (problem solving, critical thinking, and interpersonal relations).

* 0514.10 – Legal Office Technology
Preparation of legal papers and correspondence by manual and/or electronic means. Includes legal terminology, procedures, and documents.

* 0514.20 – Medical Office Technology
Prepares individuals to perform medical office administrative duties by manual and/or electronic means. Includes a knowledge of medical terminology, as well as hospital, clinic, or laboratory procedures, and compiling and maintaining medical records.

* 0514.30 – Court Reporting
Prepares individuals to record court testimony or other proceedings by machine shorthand. Prepares also for closed captioning and scoping.
* 0514.40 – Office Management

Preparation to supervise and manage operations and personnel of business offices, including supervision, budgeting, scheduling, office systems and records.

* 0516.00 – Labor and Industrial Relations

Describes the history and development of the labor movement, including the analysis and interpretation of federal and state regulations, union contracts, labor negotiations, conciliation, arbitration, and grievance procedures.

* 0518.00 – Customer Service

Preparation for customer service representative, call center technician, and related occupations.

* 0599.00 – Other Business and Management

Specify *(includes all emerging occupations).*
TOP 06 – Media and Communications

Instructional programs that study the theory, principles and methods of creation, transmission, reception and evaluation of various media.

0601.00 – Media and Communications, General
Programs including combinations or overviews of the media arts and technologies categories included in this discipline.

* 0602.00 – Journalism
The gathering, processing, evaluation, and dissemination of information concerning current events and issues through the mass media. Origination and preparation of materials is practiced.

* 0604.00 – Radio and Television
History, theories, principles, techniques, functions, technologies, and creative processes of radio and television (including combined television/film/video programs) in reaching mass audiences.

* 0604.10 – Radio
History, theories, principles, techniques, functions, technologies, and creative processes of radio.

* 0604.20 – Television (including combined TV/film/video)
History, theories, principles, techniques, functions, technologies and creative processes of television and video. Includes programs that combine television with film and/or video.

* 0604.30 – Broadcast Journalism
Theory and techniques of gathering and reporting news specifically for electronic media such as radio and television.

* 0606.00 – Public Relations
Surveying and research in PR, issues PR and news media collaboration, writing for PR, media in PR, speech writing and PR campaigns, data collection and analysis, logic and critical thinking in PR, psychology in critical thinking, public speaking and presentation skills, legal issues in PR, and ethics.

* 0607.00 – Technical Communication
Theory, methods, and skills for writing and producing scientific, technical, and business communications and documentation.

* 0610.00 – Mass Communications
Study of the media by which entertainment and information messages are delivered, techniques used in such media, and social effects of such messages.

0612.00 – Film Studies (including combined film/video)
History, development, theory, and criticism of the film/video arts, as well as principles of film making and film production.

0612. 10 – Film History and Criticism
History, development, theory, and criticism of the film/video arts.

* 0612.20 – Film Production
Communication of dramatic information, ideas, moods, and feelings through films and videos. Includes film technology and equipment, directing, editing, planning and management of film/video operations.

* 0614.00 – Digital Media
A broad range of programs that combine computer and other electronic technologies with skills and techniques from various fine arts and communications disciplines.
* 0614.10 – Multimedia

Principles and techniques of using computers to bring together text, sounds, animation, graphic art, and video to create interactive products to inform, educate, or entertain.

* 0614.20 – Electronic Game Design

* 0614.30 – Website Design and Development

Principles of design, user interface/navigation, graphics applications and other authoring tools to design, edit and publish web pages, documents, images, graphics, sound and multimedia products for the Internet.

* 0614.40 – Animation

Principles and techniques for creating the visual illusion of motion through sequenced images. Includes animation using digital technology.

* 0614.50 – Desktop Publishing

Methods of preparing text and images for presentation to readers, using computerized electronic page layout and publication programs.

* 0614.60 – Computer Graphics and Digital Imagery

Theories, principles, and uses of computer graphics vector- and raster-based software programs for consumer, commercial, and industrial applications.

* 0699.00 – Other Media and Communications

Specify (includes all emerging occupations).
TOP 07 – Information Technology

Instructional programs in the theories, principles, and methods of design, development and application of computer capabilities to data storage and manipulation.

* 0701.00 – Information Technology, General

Information technology concepts, theories, principles, methods and related computer capabilities and applications related to business, technical, and scientific problems.

* 0702.00 – Computer Information Systems

General programs in data and information storage and processing, including hardware, software, basic design principles, and user requirements.

* 0702.10 – Software Applications

Computer application software used in a business or home environment ranging from an end user skill level to corporate level for the management of information. Concepts, theory, application of software for the design and development, distribution, publishing, presentation, and analysis of text, numeric, and graphic data. Procedures, information, and application of software including a variety of methods for inputting and retrieving data, records, and information. Application of software and computer-related tools such as e-mail and speech/voice recognition for the global dissemination of information.

0706.00 – Computer Science (transfer)

Scientific and mathematical principles used in designing and building computers and computing systems, including transfer-oriented programs.

* 0707.00 – Computer Software Development

Design and development of computer-based applications. Includes systems analysis, design, specification, programming, database analysis and design, user interface development, maintenance, and testing.

* 0707.10 – Computer Programming
Entry-level programming, including methods, procedures, symbols and rules used in planning and writing instructions in computer language for the solution of a problem. Includes programming for the World Wide Web.

* **0707.20 – Database Design and Administration**

Development of database applications in a business or organizational environment, including database architecture, programming languages, proprietary database software, and related skills and techniques.

* **0707.30 – Computer Systems Analysis**

Systems analysis and design, including the recognition, definition, and improvement of processes through the use of computer technology and methodologies.

* **0708.00 – Computer Infrastructure and Support**

Network and operation systems design and administration, including certification preparation.

* **0708.10 – Computer Networking**

Principles of local, metropolitan, and wide area computer networking design, installation, maintenance and troubleshooting.

* **0708.20 – Computer Support**

Preparation to provide technical assistance to computer system users. May include use of computer hardware and software, printing, installation, word processing, electronic mail, and operating systems.

* **0709.00 – World Wide Web Administration**

Methods to develop and maintain web servers and hosted web pages, and to function as Webmaster. Includes computer systems and networks, servers, web design and editing, information resources management, web policies and security.
* 0709.10 – E-Commerce (technology emphasis)

Programs that combine marketing and management principles with technical applications of the Internet and World Wide Web, with main emphasis on applications of technology.

* 0799.00 – Other Information Technology

Specify (includes all emerging occupations).

**TOP 08 – Education**

Instructional programs that describe the science and art of importing knowledge, developing the powers of reasoning and judgment, and preparing others intellectually for a more mature and rewarding life.

0801.00 – Education, General (Pre-Professional) (Transfer)

Theory and method related to elementary, secondary and postsecondary education at the lower-division level.

* 0802.00 – Educational Aide (Teacher Assistant)

Practices and techniques necessary for preparing individuals to provide services to students and parents under the direction of professional staff.

* 0802.10 – Educational Aide (Teacher Assistant), Bilingual

Preparation for individuals to provide classroom and school services to children and parents whose native language is other than English, under the direction of professional staff.

* 0809.00 – Special Education

Theories and methods used in working with physically or mentally disabled persons, and assisting special education teachers.
0835.00 – Physical Education

Professional preparation skills in fitness, physical activity, and intercollegiate athletics. Includes courses designed to meet the general education requirement for instruction in lifelong healthful living through appropriate physical activity and theory courses, as well as transfer and physical education teacher preparation.

0835.10 – Physical Fitness and Body Movement

Programs and courses that encourage personal health and longevity through exercise activity, especially noncredit courses in this category.

* 0835.20 – Fitness Trainer

Preparation for training occupations in fitness and health, such as fitness specialists, aerobics or movement instructor, and human performance technician.

0835.50 – Intercollegiate Athletics

* 0835.60 – Coaching

Preparation for occupational coaching in schools or clubs.

* 0835.70 – Aquatics and Lifesaving

Preparation for occupational competency in swimming instruction and lifesaving as recommended by the State of California and the American Red Cross.

0835.80 – Adapted Physical Education

Programs and courses in physical education for persons with disabilities.
0836.00 – Recreation
Leadership principles and skills for recreational and leisure activities, and practices for providing indoor and outdoor recreational facilities and services for the general public.

* 0836.10 – Recreation Assistant
Principles and techniques for preparing individuals to work in recreational occupations, including arts and crafts, sports, and hobbies.

0837.00 – Health Education
Physical and mental health, including disease prevention and control, and the social and economic significance of good health.

0839.00 – Industrial Arts (Transfer)
Meets the lower-division (transfer) requirements for industrial arts majors, including theories, methods, tools, materials, processes related to productive capacity of industry.

0850.00 – Sign Language
Programs and courses in American Sign Language or other sign language for the deaf.

* 0850.10 – Sign Language Interpreting
Programs to prepare individuals to interpret oral speech for the hearing impaired, including sign language, orientation to deaf culture, and interpreting from signing to voice and from voice to signing.

* 0860.00 – Educational Technology
Principles and techniques for use of technology to improve learning. Includes computer software and resources, multimedia enhancements, audio and video skills, and other technology strategies that assist teachers to enhance the delivery of curriculum.
* 0899.00 – Other Education

Specify (includes all emerging occupations).
TOP 09 – Engineering and Industrial Technologies

Instructional programs in the mathematical and natural sciences utilizing the materials and forces of nature for the benefit of human beings. Instructional programs in technology that require the application of scientific and engineering knowledge, methods, and technical skills in support of engineers and other professionals.

0901.00 – Engineering, General (requires Calculus) (Transfer)

Properties of matter and the sources of energy in nature that are made economically useful to humans.

* 0924.00 – Engineering Technology, General (requires Trigonometry)

Technical support of engineering, including the use of civil and mechanical engineering principles, physical sciences, basic physics, mathematics, surveying, materials testing, hydraulics and pneumatics, and the preparation of plans, specifications, and engineering reports.

* 0934.00 – Electronics and Electric Technology

Theory and application of electric and electronic systems and components, including circuits, electro-magnetic fields, energy sources, communications devices, radio, and television circuits, computers, and other electric and electronic components and devices.

* 0934.10 – Computer Electronics

Principles of computer design and circuitry, systems and network architecture and maintenance, components and peripherals, problem diagnosis and repair.

* 0934.20 – Industrial Electronics

Assembly, installation, operation, maintenance, and repair of electronic equipment used in industry and manufacturing. Includes fabrication and assembly of electronic and related components.

* 0934.30 – Telecommunications Technology
Application of engineering principles and technical skills to design and implementation of telecommunications systems. Includes communication protocols, data networking, digital compression and signal processing, satellite and microwave technology.

* 0934.40 – Electrical Systems and Power Transmission

Installation, operation, maintenance, and repair of electrical systems and the power lines that transmit electricity. Includes assembly, installation, maintenance and repair of motors, generators, transformers, and related equipment.

* 0934.60 – Biomedical Instrumentation

Operation, maintenance, and installation of devices associated with biomedical measurements and medical life support.

* 0934.70 – Electron Microscopy

Principles, procedures, and techniques associated with electron microscopes.

* 0934.80 – Laser and Optical Technology

Assembly, installation, testing, adjustment, and operation of various types of lasers and other optical equipment, including fiber optic equipment and systems.

* 0935.00 – Electro-Mechanical Technology

Design, development, testing, and maintenance of electro-mechanical and servo-mechanical devices and systems.

* 0935.10 – Appliance Repair

Repair and servicing of consumer appliances, such as ranges, refrigerators, dryers, water heaters, washers, and dishwashers.
* 0936.00 – Printing and Lithography

Printing or reproduction of materials, including forms, newspapers, publications, and brochures. Computerized pre-print applications, press operations, camera and stripping, and bindery and finish work are included.

* 0943.00 – Instrumentation Technology

Design, manufacture and use of display devices and systems for detection, observation, measurement, control, computation, communication, or data processing.

* 0943.30 – Vacuum Technology

Assembly, installation, maintenance, and repair of various vacuum actuated systems and devices.

* 0945.00 – Industrial Systems Technology and Maintenance

Design, construction, maintenance, and operation of mechanical, hydraulic, pneumatic, and electrical equipment and related systems, such as production machinery. Includes building and plant maintenance.

* 0946.00 – Environmental Control Technology (HVAC)

Assembly, installation, operation, maintenance, and repair of air conditioning, heating, and refrigeration systems.

* 0946.10 – Energy Systems Technology

Theory and methods of energy conservation applied to heating, cooling, and related systems, including the measurement and assessment of energy consumption, diagnosis and prescription. Includes alternative energy systems.

* 0947.00 – Diesel Technology
Repair and maintenance of diesel engines in vehicles, ships, locomotives, and construction equipment, as well as stationary diesel engines in electrical generators and related equipment.

* 0947.20 – Heavy Equipment Maintenance
Maintenance, repair and overhaul of heavy equipment.

* 0947.30 – Heavy Equipment Operation
Operation of heavy equipment, including earth moving, demolition, and construction equipment.

* 0947.40 – Railroad and Light Rail Operations
Operation and maintenance of trains and railroad equipment, including light rail, heavy rail, passenger rail, and freight rail.

* 0947.50 – Truck and Bus Driving
Operation of trucks and buses with diesel, gasoline, or alternative power engines.

* 0948.00 – Automotive Technology
The servicing, maintenance, and diagnosis of malfunctions, and repair and overhaul of components and systems in automotive vehicles.

* 0948.30 – Motorcycle, Outboard, and Small Engine Repair
Repair, overhaul, service, and maintenance of motorcycles, outboard motors, and small engines.

* 0948.40 – Alternative Fuels and Advanced Transportation Technology
Conversion to, installation of, and maintenance of electric vehicles, liquefied petroleum gas, compressed natural gas, hybrid fuel technologies, and related systems.
* 0948.50 – Recreational Vehicle Service

Maintenance of hydraulic, electrical, air conditioning and other systems in recreational vehicles.

* 0949.00 – Automotive Collision Repair

Repair and refinishing of automotive vehicle panels and bodies, straightening of vehicle frames and unibodies, and replacement of damaged vehicle glass.

* 0949.10 – Upholstery Repair–Automotive

Repair and replacement of automotive interiors.

* 0950.00 – Aeronautical and Aviation Technology

Theory of flight and the design, construction, operation, and maintenance of aircraft, aircraft propulsion units, and aerospace vehicles. Includes combined airframe and powerplant mechanics programs.

* 0950.10 – Aviation Airframe Mechanics

Inspection, repair, service, maintenance, and overhaul of airframes and aircraft systems. The program is designed to meet the Federal Aviation Administration (FAA) requirements for licensing as an airframe mechanic.

* 0950.20 – Aviation Powerplant Mechanics

Inspection, repair, service, maintenance, and overhaul of aircraft engines and engine systems. The program is designed to meet the Federal Aviation Administration (FAA) requirements for licensing as a powerplant mechanic.

* 0950.40 – Aircraft Electronics (Avionics)
Electronic theory, applications and equipment used in aircraft, including installation, maintenance, and repair of aircraft electronic and other operating and control systems.

* 0950.50 – Aircraft Fabrication
Principles and techniques of aircraft structural and composites fabrication and assembly.

* 0952.00 – Construction Crafts Technology
Lay out, fabrication, erection, installation, and repair of buildings, highways, airports, and other structures and fixtures, including framing, construction materials, estimating, blueprint reading, and use of tools.

* 0952.10 – Carpentry
Layout, fabrication, erection, and installation of structures using common systems of framing, construction materials, estimating, and blueprint reading.

* 0952.20 – Electrical
Installation, operation, maintenance and repair of electrical systems in buildings, including residential, commercial, and industrial electric power wiring and motors, controls, and electrical-distribution panels.

* 0952.30 – Plumbing, Pipefitting, and Steamfitting
Theories, principles, methods, technical skills and use of equipment in plumbing, pipefitting, and steamfitting.

* 0952.40 – Glazing
Theories, principles, methods, technical skills, and use of equipment in glazing.
* 0952.50 – Mill and Cabinet Work
Cutting, shaping, assembly, and finishing of wood and related materials according to designs and specifications.

* 0952.60 – Masonry, Tile, Cement, and Lath and Plaster
Theories, principles, methods, technical skills, and use of equipment in brick, block and stonemasonry, tile laying and finishing, cement finishing, and lathe and plaster construction.

* 0952.70 – Painting, Decorating, and Flooring
Theories, principles, methods, technical skills and use of equipment in painting, decorating, paperhanging and flooring.

* 0952.80 – Drywall and Insulation
Theories, principles, methods, technical skills, and use of equipment in drywall installation, taping, and insulation.

* 0952.90 – Roofing
Theories, principles, methods, technical skills and use of equipment in hot tar and/or the shingle roofing.

* 0953.00 – Drafting Technology
Planning, preparation, and interpretation of various engineering sketches for design and drafting duties, for circuits, machines, structures, weldments, or architectural plans. Includes the application of advanced computer software and hardware (Computer Assisted Drafting and Computer Assisted Design) to the creation of graphic representations and simulations in support of engineering projects.

* 0953.10 – Architectural Drafting
Preparation of working drawings and electronic simulations for architectural and related construction projects.

* 0953.20 – Civil Drafting
Preparation of working drawings and electronic simulations in support of civil engineers, geologic engineers, and related professionals.

* 0953.30 – Electrical, Electronic, and Electro-Mechanical Drafting
Development of working schematics and representations in support of electrical/electronic engineers, computer engineers, electro-mechanical engineers, and related professionals.

* 0953.40 – Mechanical Drafting
Development of working drawings and electronic simulations in support of mechanical and industrial engineers and related professionals.

* 0953.60 – Technical Illustration
Principles, methods, and techniques used in the design and layout of consumer, commercial, and industrial illustrations.

* 0954.00 – Chemical Technology
Chemical processes, including heat transfer, treatment of liquid and gases, and physical-chemical operations used in industrial processes and the chemical industry.

* 0954.20 – Plastics and Composites
Principles, processes, technical skills, and equipment used in fabricating products from plastics, polymers, and composites.
* 0954.30 – Petroleum Technology

Petroleum production, exploration, testing, drilling, analyzing, and logging drilling cores and transporting gas and oil.

* 0955.00 – Laboratory Science Technology

Practical analytical applications of inorganic chemistry, organic chemistry biochemistry, and other physical and biological sciences in laboratory, testing, and quality control settings in industry and science.

* 0956.00 – Manufacturing and Industrial Technology

Engineering principles and technical skills for the manufacture of products and related industrial processes. Includes shaping and forming operations, materials handling, instrumentation and controls, and quality control. Includes Computer Aided Manufacturing and robotics. Also includes optimization theory, industrial and manufacturing planning, and related management skills.

* 0956.30 – Machining and Machine Tools

Fabrication, assembly and repair of parts and components or systems on machines, such as lathes, grinders, drill presses, milling machines, and shaping machines. Includes Computer Numerical Control and tool design.

* 0956.40 – Sheet Metal and Structural Metal

Theories, principles, methods, technical skills, and equipment used in sheet metal occupations and ironworking occupations.

* 0956.50 – Welding Technology

Welding techniques, processes, and equipment applied in accordance with diagrams, blueprints, or other specifications.
* 0956.70 – Industrial and Occupational Safety and Health

Safety engineering principles and practices, as well as related federal, state and local regulations concerned with workplace safety.

* 0956.80 – Industrial Quality Control

Inspection, testing and evaluation of parts, products, equipment, and processes for adherence to specifications. Includes nondestructive testing.

* 0957.00 – Civil and Construction Management Technology

Application of procedures and techniques related to civil and construction management, including estimating and bidding, scheduling and control, inspection, building systems, construction practices, quality control, labor and safety practices. Includes public works management.

* 0957.20 – Construction Inspection

Inspection of new or remodeled structures to determine their soundness and compliance to specifications, building codes and other regulations.

* 0957.30 – Surveying

Surveying and mapping of angles, elevations, points and contours used for construction, map-making, urban planning or other purposes. Includes related applications of Global Positioning Systems (GPS) and Geographic Information Systems (GIS).

* 0958.00 – Water and Wastewater Technology

Principles, technical skills and equipment used to process, purify, store and distribute potable water, and dispose of waste water. Design, construction, operation, and maintenance of equipment for water or waste water treatment systems.
* 0959.00 – Marine Technology
Operation and maintenance of ships systems and marine equipment.

* 0959.10 – Diving and Underwater Safety
Professional diving, diving instructors or diving support personnel.

* 0961.00 – Optics
Grinding of lenses from optical glass or plastic according to engineering specifications or optometrist prescriptions.

* 0962.00 – Musical Instrument Repair
Maintenance, repair, and tuning of acoustic and electric musical instruments.

* 0999.00 – Other Engineering and Related Industrial Technologies
Specify (includes all emerging occupations).
Presented by:
CAROLINE Q. SHELDON, PH.D.
DEAN, INSTITUTIONAL RESEARCH
NOVEMBER 2009

Executive Summary
ARCC Report 2009-10

SMC Consistently Outperforms the State on Four of Seven ARCC Measures
SMC Demonstrates Improvement on Two ARCC Measures
Issues: Data for Basic Skills Improvement Rate and Career and Technical (Vocational) Education Benchmark
Local Institutional Effectiveness Strategy

Major Findings

SMC Consistently Outperforms the State on Four of Seven ARCC Measures

Student Progress and Achievement

- State
- SMC
SMC Consistently Outperforms the State on Four of Seven ARCC Measures

### Percent 30 Units

<table>
<thead>
<tr>
<th>Period</th>
<th>State</th>
<th>SMC</th>
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<tbody>
<tr>
<td>00-01 to 05-06</td>
<td>70.30%</td>
<td>75.60%</td>
</tr>
<tr>
<td>01-02 to 06-07</td>
<td>70.40%</td>
<td>74.60%</td>
</tr>
<tr>
<td>02-03 to 07-08</td>
<td>71.20%</td>
<td>74.00%</td>
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### Fall to Fall Persistence

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<th>Period</th>
<th>State</th>
<th>SMC</th>
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<tbody>
<tr>
<td>Fall 04 to Fall 05</td>
<td>69.30%</td>
<td>73.80%</td>
</tr>
<tr>
<td>Fall 05 to Fall 06</td>
<td>68.30%</td>
<td>74.60%</td>
</tr>
<tr>
<td>Fall 06 to Fall 07</td>
<td>69.20%</td>
<td>74.00%</td>
</tr>
</tbody>
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### ESL Improvement Rate*

<table>
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<tr>
<th>Period</th>
<th>State</th>
<th>SMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>03-04 to 05-06</td>
<td>44.70%</td>
<td>71.10%</td>
</tr>
<tr>
<td>04-05 to 06-07</td>
<td>51.20%</td>
<td>72.80%</td>
</tr>
<tr>
<td>05-06 to 07-08</td>
<td>51.20%</td>
<td>71.10%</td>
</tr>
</tbody>
</table>

*State performance was not reported for the first period.
SMC Shows Improvement Over the Baseline Year in Two ARCC Measures

Successful Course Completion Rate Basic Skills

2005-06 2006-07 2007-08
50.00% 55.00% 60.00%

Fall to Fall Persistence Rates

Fall to Fall Persistence Rates

75.00% 70.00% 65.00%

Institutional effectiveness at SMC includes three types of interrelated research activities:

Development
Build capacity for understanding and utilizing data for improvement

Monitoring
Snapshot to describe performance strengths and gaps

Impact
Connects program activities to outcomes

Development
Usually includes workshops and training

Workshops and training typically completed during the spring

- Increase understanding, interpretation, and utilization of data by program staff for the purpose of program improvement
- Knowledge of data available, types of research designs, services of research office, and types of programs
- Participation levels and satisfaction with workshops and training
- Annual Report Institutional Research Office
- Institutional Research Program Review
- To understand and ability to interpret data, increase program and faculty understanding of data opportunities and data to better inform students, faculty, and staff
- Annual Report Institutional Research Office
- Institutional Research Program Review

Expectations
• As understanding and ability to interpret data increase, programs will be better able to identify issues and make better informed decisions at the program level
Monitoring

Monitoring provides a snapshot of performance on key measures. Monitoring allows for the identification of performance strengths as well as gaps. Examples of monitoring systems include ARCC, and local institutional effectiveness reports.

| Goal | • Quickly summarize areas of strength and areas of improvement on local measures. |
| Who | • Research office in collaboration with Program Review Committee, Student and Institutional learning Outcomes Committee, District Planning and Advisory Committee, Board of Trustees |
| Measures | • Transfer/Completion Rates • Basic Skills • CTE • ILOs • Student Development |
| Reports | • Annual Expectations • Performance is expected to influence decision-making with respect to institutional priorities, initiatives, and resources • Performance will focus attention on impact assessment for specific areas |

SMC Institutional Effectiveness Report

Proposed measures and benchmarks based on:
• Review of other community colleges
• Analyses of local data
• Identification of performance gaps
• Analyses of system data
• Identified institutional learning outcomes
• Currently available data
• Flexibility

| Goal | • Connects program goals and activities to outcomes. |
| Who | • Research office in collaboration with Program Review Committee, Student and Institutional learning Outcomes Committee, instructional and non-instructional program stakeholders |
| Measures | • Standardized performance measures adopted by Program Review Committee • Course and program outcomes adopted by program stakeholders |
| Reports | • Connected to program review cycle • Assessment is ongoing and continuous • Performance is expected to influence decision-making at the program level, improvements will be implemented, and re-assessed at regular intervals |

Impact

Impact studies directly connect program goals and activities with outcomes. Assessing impact or outcomes allows programs to understand what works for whom.

Examples of impact studies include outcomes assessment via program review, program evaluations such as Summer Bridge, and Counseling at SMC.
Recommendation
Program Review

Develop a set of standard data for all programs to address in program review report that are tied to local institutional effectiveness measures and outcomes.

Achievement/Outcomes
• Successful Course Completion Rates
• Historically underrepresented Groups
• Graduation Rates
• Historically underrepresented Groups
• Enrollment

Learning/Unit Outcomes
• Course Level
• Program Level
• Institutional Level

Enrollment Trends
• Demographics
• FTE
• Number of Sections Offered
• Average Section Size
• Number of Students Served/Participants

CalPASS Datamart Demonstration

Tool is being made widely available on campus
In-depth training available upon request