

southwestern community college district  
educational master plan

april 2013



CW/P



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strategy to induce the conditionally-ready students to enroll in math curriculum during their senior year in high school as a way to prepare for college-level instruction. In particular, the College may want to collaborate with the high school faculty to design that senior year math course of study.

**Student Success Priority**

The College prepares large numbers of students to transfer into four-year institutions where they continue their program of study. The College leadership is aware that the majority of Southwestern students is both financially needy and first-generation college-going students who are often reluctant to move out of the region due to economic factors as well as who need family and community bonds. Most students intending to transfer from the College to a four-year institution plan to attend a Scathe transfer major initiative (SB1440), discussed earlier in this Plan, holds the potential to smooth the transfer process to a CSU campus for many students at the College who are able to select a field of study and meet the academic requirements. The faculty will continue actively to engage in the inter-segmental discipline peer review process being used to develop the TMCs. The Curriculum Committee will also continue to be vigilant in fast tracking those approved TMCs that fit with the established campus instructional programs, but the faculty members are encouraged to accelerate their deliberations and may need to embrace a system-wide TMC rather than waiting for SDSU faculty to create a distinct University model. Large numbers of students from the College have been selecting in-state private institutions and out-of-state schools as their transfer destinations, perhaps because they could not gain admission to SDSU or UCSD or perhaps because they felt they could complete a program of study in less time at these other institutions. Whatever the reason, there is a need to pursue the vision of a university and research park located in Chula Vista. The College is encouraged to support those efforts.

New state leadership of the Workforce and Economic Development Division of the Chancellor’s Office is seeking to chart a slightly different direction for CTE instruction. Greater attention to regional labor market needs and increased cooperation among community colleges is expected. Recently released policy reports criticize the state’s basic skills program for not including any explicit focus on the CTE programs and also criticizes the CTE certificate programs for failing to require English or math (critical thinking/problem solving) instruction as part of the certificate curriculum requirements. The College may want to take some cross-discipline institutional learning outcomes as a pilot, and consider a curriculum-mapping project for the CTE certificate programs. This pilot project would help determine the extent to which communications, critical thinking/problem solving, and “soft skills” desired by employers are being taught and assessed. The College also may want to explore additional ways to integrate (contextualize) basic skills with the CTE instruction. A growing body of research literature, some of which is cited in this Plan, suggests that teaching basic skills in the context of the disciplinary topic areas is an effective way to teach students how to apply the foundational skills.

The College has actively pursued a number of basic skills interventions, particularly when dedicated State funding was more readily available. The topic has been the subject of many reports and studies in recent years. This Plan highlights several of the interventions the College has implemented and offers brief discussions of national research findings regarding the efficacy of many strategies. All community colleges struggle with finding ways to make remedial education effective. A recent advocacy document, Core Principles for Transforming Remedial Education, on the topic of remedial instruction may be of interest to the College as its principles are stated very succinctly, draw upon recent creditable research, and has the support of three major groups and an established University research center.



the needs of local employers.

The College has a unique combination of administrative units positioned to advance business activity in the immediate College service area as well as in the San Diego-Imperial Counties region. These include the Center for International Trade and Development (CITD), San Diego Contracting Opportunities Center (SDCOC), and the South San Diego County Small Business Development Center (SBDC).

The College service area contains several enterprise zones and targeted employment areas. This feature makes Southwestern College unique among all of the nine community colleges in San Diego County. There may be ways in which the College could leverage the enterprise zone and targeted employment area designations in its strategic priority efforts to favorably impact the economic, workforce and community development of the service area.

**Projection of Space Needs**

Considering the economic and fiscal factors, the growth projection of Weekly Student Contact Hours (WSCH) for the entire District was established at an average annual 2.6% for benchmark years 2015, 2020 and 2025. WSCH from distance education offerings was excluded from this projection. In any planning cycle, the proposed facilities are time specific and address future needs for increased capacity that may or may not materialize. The strategic goal is to plan for sufficient facilities that are flexible enough to accommodate additional enrollments.

- The future fall term WSCH for the large Chula Vista campus is projected to grow at an average annual rate of 2.5% over the benchmark years 2015, 2020 and 2025.

- The Otay Mesa Higher Education Center is projected to experience future WSCH growth at an annual average rate of 2.8%. However, this rate of growth depends upon future land development activities to bring additional residential housing to the areas west of the Center location.
- The San Ysidro Higher Education Center is also projected to experience future WSCH growth at an annual average rate of 2.7%. This Center is limited in facilities and now operates six days a week. Additional major growth will depend upon the provision of additional instructional facilities.
- The National City Higher Education Center is projected to experience future WSCH growth at an annual average rate of 2.7%. The projection includes: all instructional activity provided in National City at the physical location of the Center; offerings at the Crown Cove Aquatic Center; and, the programs offered to Navy personnel and taught elsewhere in the District. This Center is somewhat limited in facilities. Additional major growth will depend upon expanding instructional services during the weekend and/or the provision of additional instructional facilities.

The forecasts prepared for this Plan are in summary form by educational centers and the Chula Vista campus of the College. The actual forecasting process, however, was conducted at the discipline/program level. A comprehensive analysis by discipline/program can be found in the appendix of the Facilities Master Plan.



# CHAPTER 1

## MESSAGE FROM THE SUPERINTENDENT / PRESIDENT

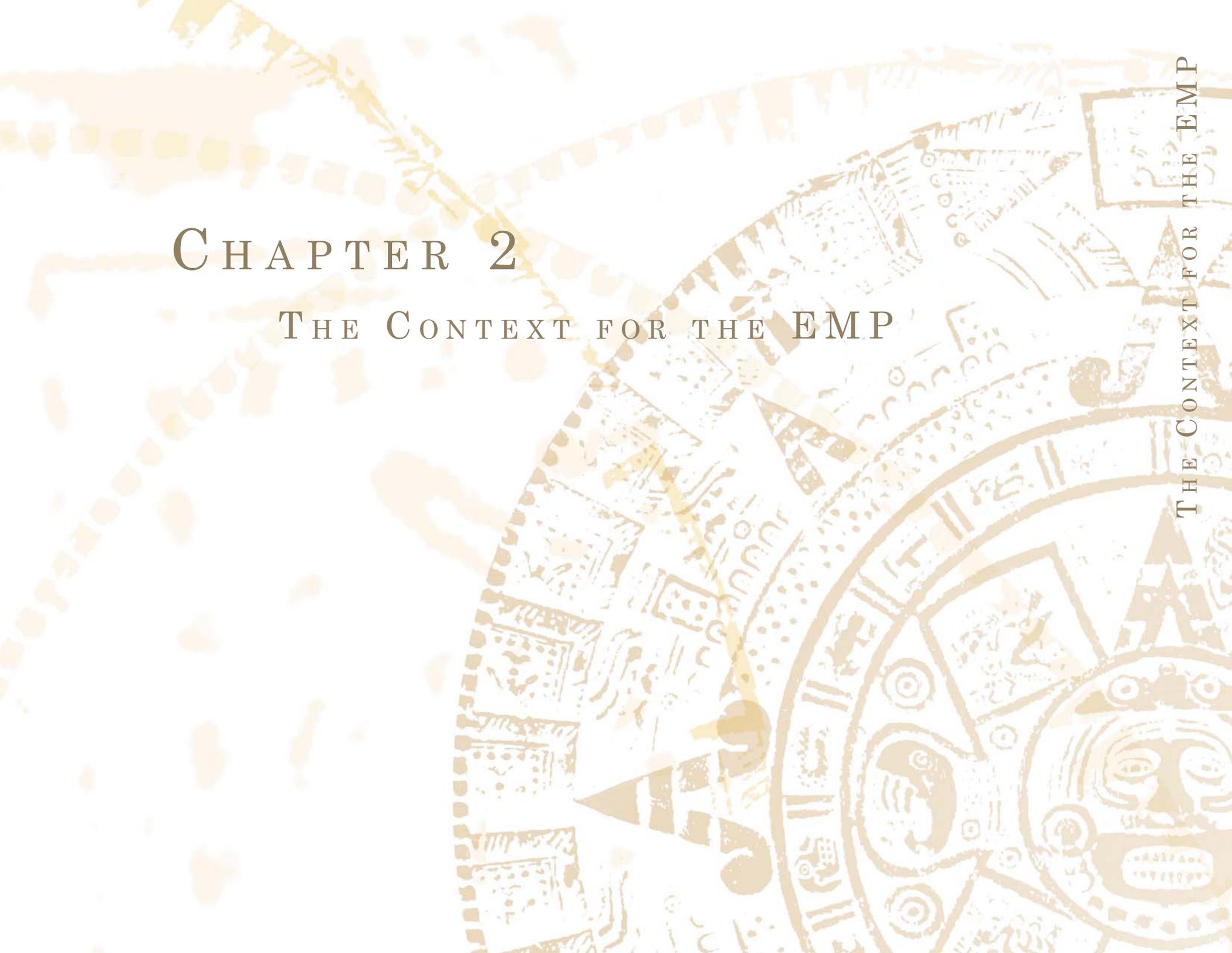






# CHAPTER 2

## THE CONTEXT FOR THE EMP





# The Context For The Educational Master Plan

The Southwestern College Educational Master Plan (EMP) is a reflective evaluation of where the College has been, where it is now, and where it might plan to be in the future with respect to providing services to students and the community. The analysis presented in this document is based on a combination of data and the collective knowledge of faculty, staff, and administrators with respect to predicting the future programmatic needs for the College. Additionally, the EMP aligns with the College's Strategic Plan. The EMP will guide our Facilities Master Plan (FMP) by suggesting likely future enrollment growth and facilities needs because the College is committed to providing facilities to support the institution's educational goal.

The College developed a combined educational and facilities plan in 2008. Subsequently, a Strategic Plan with priorities was crafted with extensive campus consultation in 2011 to guide the institution over the next five years. The Strategic Plan has eight priorities, four of which help the College fulfill its mission, while the other four help the College strengthen itself as a public institution. Each of the priorities was accompanied by institutional goals and objectives that are monitored to serve as key performance indicators.

The results of the ongoing program review process were used in the EMP. In the course of the program review process the College has reviewed course and program offerings with respect to raw numbers of students served, the full-time equivalent students (FTES), the number of full-time equivalent faculty (FTEF) per student, success and retention rates within courses, number of sections offered, percentage of students taking courses online, and degrees and certificates awarded (where appropriate.) Academic disciplines and administrative units were used as units of analysis in these reviews to provide granular insights. In addition to the hard data, each school has provided an assessment of its area as well as plans for the future, as specified in the program

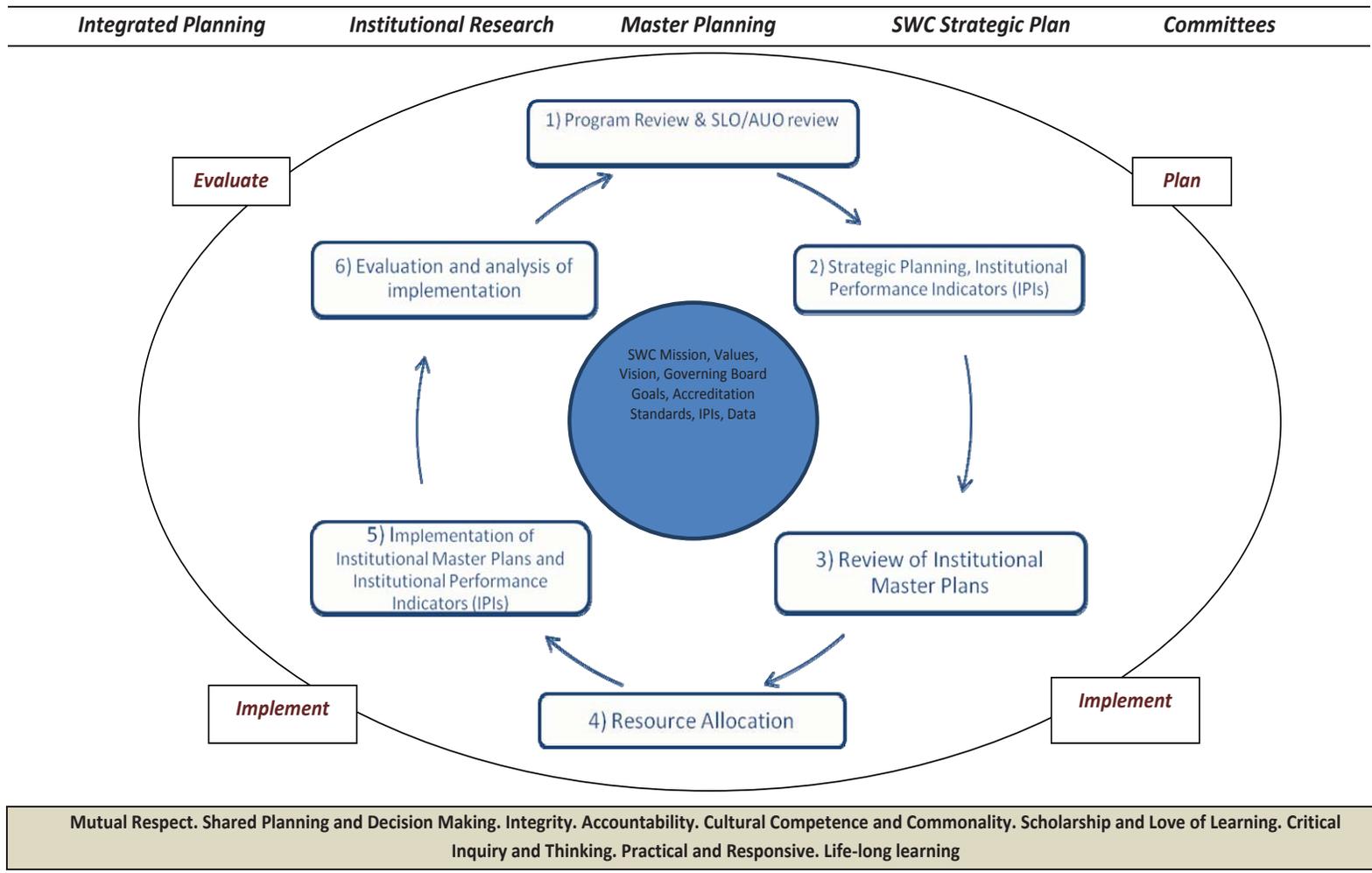
review templates. However, the EMP is not a compilation of the program reviews nor is it a document that takes the place of key functional or operational plans.

With respect to future directions, the EMP uses labor market data from a variety of sources including ESRI, Inc., Bureau of Labor Statistics (BLS), and California Department of Economic Development (EDD) to project future business, government, and industry needs for workers in the region. For purposes of the EMP, data for San Diego County was the primary focus of attention. In some cases we have also presented state and national data as a backdrop.

The EMP's projections represent a best analysis for what the College might consider doing in the next five years. The Plan will be updated based on significant changes that may occur during the next five years. The current Plan was created after the approval of the fall 2012 Midterm Accreditation Report and prior to completion of the Self-Evaluation Report in preparation for the accreditation visit in fall 2015. The College is in the process of implementing many of the action plans described in the 2009 self-study report, but these action plans should be considered on going.

The integrated planning process at the College operates as illustrated in the following graphic.

SWC Integrated Planning Process



Source: Shared Consultation Council, revised February 2013



Shared Consultation Council Prioritization Process for Allocating Discretionary Funding

Standing Committee	Institutional Plans	Prioritization	Strategic Priority	ACCJC Self-Evaluation Standard
<b>Human Resources Committee (HRC)</b>	Human Resources / Staffing Plan  Equal Opportunity Employment Plan  Staff Development Plan	Classified Positions Administrative Positions w/Recommendations from Cabinet  [Faculty Positions via FHP]	Human Resources	3A. Human Resources
<b>Institutional Facilities Committee (IFC)</b>	Educational & Facilities Master Plan (Facilities portion)	Facilities  Equipment (greater than \$5,000)	Physical and Financial Resources and Development (Physical Resources portion)	3B. Physical Resources
<b>Institutional Program Review Committee (IPRC)</b>	Program Review Documents SCC Prioritization Process SCC Operating Principles Shared Planning and Decision Making Handbook	N/A	Organizational Effectiveness	TBD
<b>Accreditation Oversight Committee (AOC)</b>	ACCJC Self-Evaluation Study	N/A	All	All
<b>Budget Committee (BC)</b>	Financial Resources Plan	NONE – Identifies Funding for Master List of priorities once provided by SCC	Physical and Financial Resources and Development (Financial Resources portion)	3D. Financial Resources
<b>Institutional Student Learning Outcomes Committee (ISLOC)</b>	None	None	Provides ISLO data to all standing committees for institutional plans and program review prioritization	All standards involve SLOs and ISLOs

Source: Shared Consultation Council, February 27, 2013

Various functional plan documents have been created to assist the College in institutional planning. These plans include information such as data, demographics, current circumstances, projection of future trends, and findings from program review. Those listed below are not, however, all inclusive of the plans that may be developed and utilized as part of institutional planning. In addition, ongoing review of these plans occurs both within the specific committee or group from which the plan originated and within the SSC.

### **Enrollment Management Plan/Guidance Documents**

In 2009, the College Enrollment Management Committee began working on a long-term enrollment management plan and established a task force to respond to short-term fluctuations in enrollment targets and mid-year budget reductions. Guidance for scheduling was provided to school deans and department chairs for constructing schedules for each term and for the entire academic year in order to achieve FTES targets and to maximize our apportionment dollars. The Enrollment Management Committee provided data of enrollment and other trends over the next few years that was used in making enrollment and scheduling decisions based on, among other metrics, area demographics, trends, high school yield, etc. In addition, specific enrollment management goals were established to guide college-wide planning to make informed decisions regarding program and course offerings and other issues related to enrollment management.

### **Technology Plan**

The College developed a Technology Plan in 2011, after considerable campus consultation. The purpose of the Plan was to guide the further implementation of information technology in support of instruction and administration of the institution through 2015. The Technology Plan provides guidance to the College in terms of processes for providing new and upgraded technology

equipment and software, process for repairing technology equipment, minimum computer standards, wireless policies and procedures, use of computer procedures, and guidelines regarding media services and web pages. The plan also includes the organizational and reporting structure of the staff in addition to related board policies and procedures regarding computer use and network prohibitions. An updated implementation grid can be found at this URL <http://www.swccd.edu/4thLevel/index.asp?L3=1022>

### **Five-Year Capital Construction Plan**

Every year, the College submits a rolling Five-Year Capital Construction Plan. This Plan projects intended renovation and construction projects supported by Proposition AA or Proposition R. Projects on this list come from the goals and objectives, and analysis of the earlier EMP and FMP documents. The SCC carefully reviews major renovation or capital construction projects.

### **Distance Education Plan**

The College submitted a substantive change proposal to the accrediting commission in March 2010 that outlined the direction the College was to take in distance education. The College intends to create a long-term Online Learning Master Plan within the next 12 to 18 months. The Plan will further guide the development of the support services for faculty teaching online, and the scheduling of curriculum offerings provided in either a hybrid or online format. In preparation for the Online Learning Master Plan, the College is conducting a review of the support services provided to students who enroll in distance education offerings. This review will ensure that SWC support services are comparable to the services provided to students who attend the physical college sites (Chula Vista, Otay Mesa, San Ysidro, National City or Crown Cove).

**Student Equity Plan**

In 2009, the College prepared a student equity report and plan to promote greater student access and success. That report considered student achievement data from 2002-03 through 2005-06. Conclusions and observations from that report were translated into plans that flowed into the current College strategic priority to promote more student success and completion.

**Diversity Initiative**

In 2003 the Governing Board asked the Diversity Advisory Committee (DAC) to develop an initiative that would help create an environment of civility and enthusiasm for valuing differences. The 2005 Diversity Initiative came from that request. The Initiative complements and extends the Student Equity Plan as it articulates goals for life at the College from students to training and development of the staff. The overall purpose of the DAC is to protect the learning that is inherent in the process of tolerance, acceptance and understanding of differences.

**Basic Skills 5-Year Plan**

With the introduction of supplemental basic skills funding to address a Board of Governors initiative, the College invented a request for proposals process to allocate new funding to projects proposed by the faculty. Those projects were designed to support interventions that would address shortcomings in student performance that were identified by the faculty. A series of year-end reports about the allocation of the funds are part of the College records. The most recent report highlights efforts in program and curriculum planning and development, advisement and counseling services, as well as supplemental instruction and tutoring. The report discusses intervention activities that the College has found most useful, as well as planned interventions for the future that are based on data analysis and reporting of student achievement. These plans also flow into the current College strategic priority, which is to promote

increased student success and completion.

**College-wide Workforce and Business Development Plan**

The College intends to develop a plan to articulate the ways in which the institution will contribute to the region’s economic revitalization through the use of resources to support the expansion of local business and industry.

**Unit Plans**

One of the most important review activities on campus is the program review process. During this process, College programs assess their effectiveness. Each instructional discipline conducts a comprehensive program review every three years on a staggered calendar. These reviews include the compilation of various data and information including:

1. The school/department/program mission statement
2. Student learning outcomes (instruction) or service area outcomes (non-instructional)
3. Analysis of current performance
4. Program strengths and areas for improvement
5. Goals during the program review cycle to include a time-line, needed resources, obstacles to completion, and how the goals link to the college mission statement
6. Staffing levels and requests for new or replacement positions
7. Budget requests with a justification for any increases noted

When an instructional discipline completes its program review, it is forwarded to the Academic Program Review Committee (APRC) for evaluation to ensure that it contains the required information and meets the standards according to the program review evaluation matrix. Those reviews that are missing necessary elements are referred back to the originating unit for modification. Those that contain the necessary elements for funding are forwarded to the appropriate standing committee of the SCC for prioritization. Prioritized funding needs are then forwarded to the entire SCC to be used when making decisions about budget allocations of funds above and beyond the normal “rollover from the prior year” budget support levels.

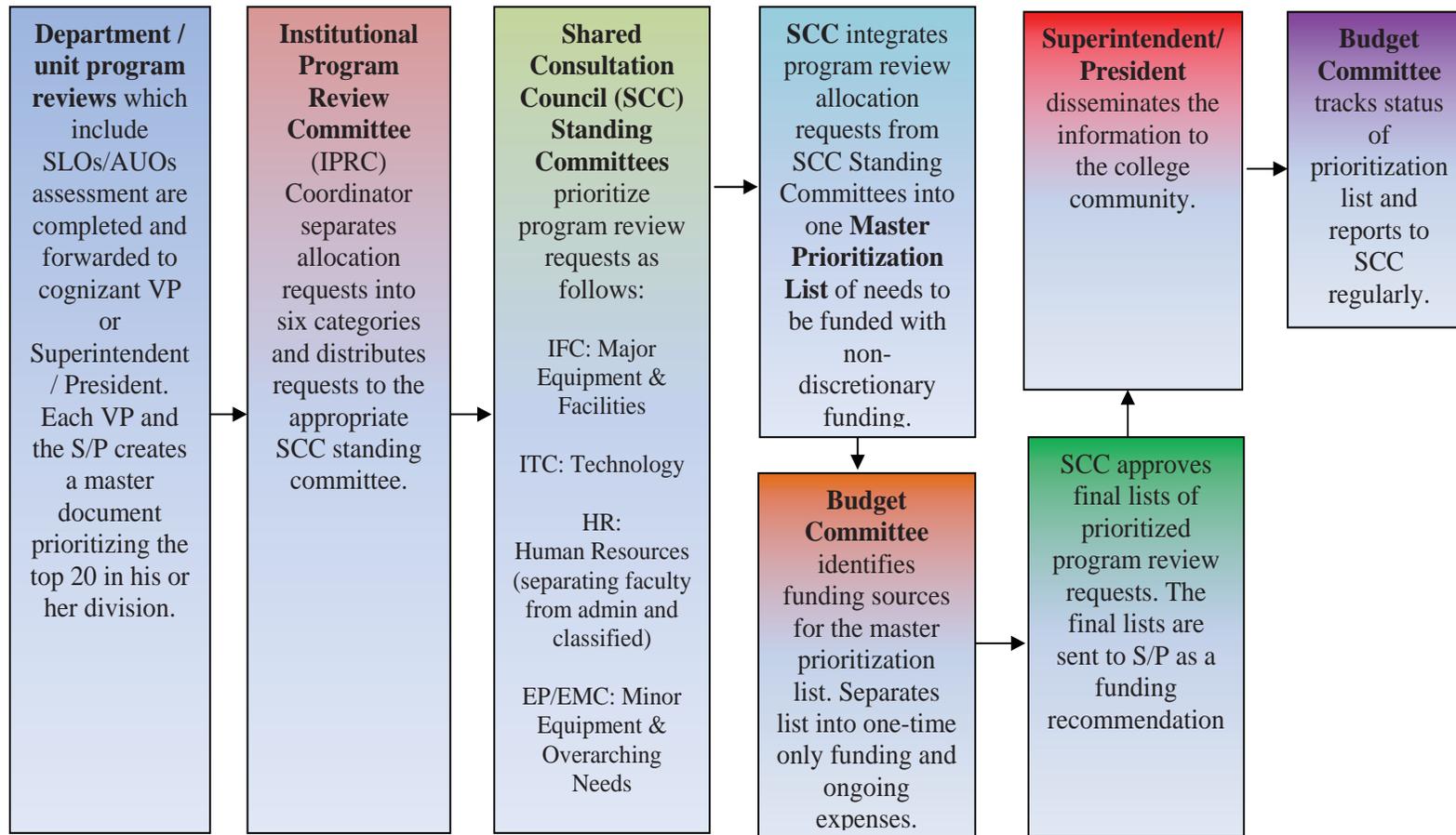
A similar process is followed for administrative and student support units, but the comprehensive review is conducted on a six-year cycle and the completed reviews go to the Institutional Program Review Committee (IPRC) for the same group critique process.

All instructional programs and administrative/student support units annually complete a snapshot report on progress made in achieving objectives and resource needs.

The next stage of the planning process is implementation. Once the reviews have been completed or goals and objectives have been assessed, action is taken in response to the findings. Goals may change, processes may be modified, or services may be added. Regardless, the assessment or evaluation process concludes the cycle. The assessments/evaluations are used to improve the College’s student learning and support services. This overall process- plan, implement, and evaluate (PIE) process, is illustrated in the previously presented integrated planning graphic.

The SCC Prioritization Process addresses resource allocation for program needs that cannot be addressed within the budget development process for the annual operation budget. Program needs are identified through the institutional program review process and are supported by SLO/AUO data within program review documents. Program review documents, both the comprehensive and snapshot format, require program needs to be linked with the College’s Strategic Priority Plan and Institutional Goals and Objectives. The process for allocating discretionary funding used by the SCC is illustrated in the graphic below.

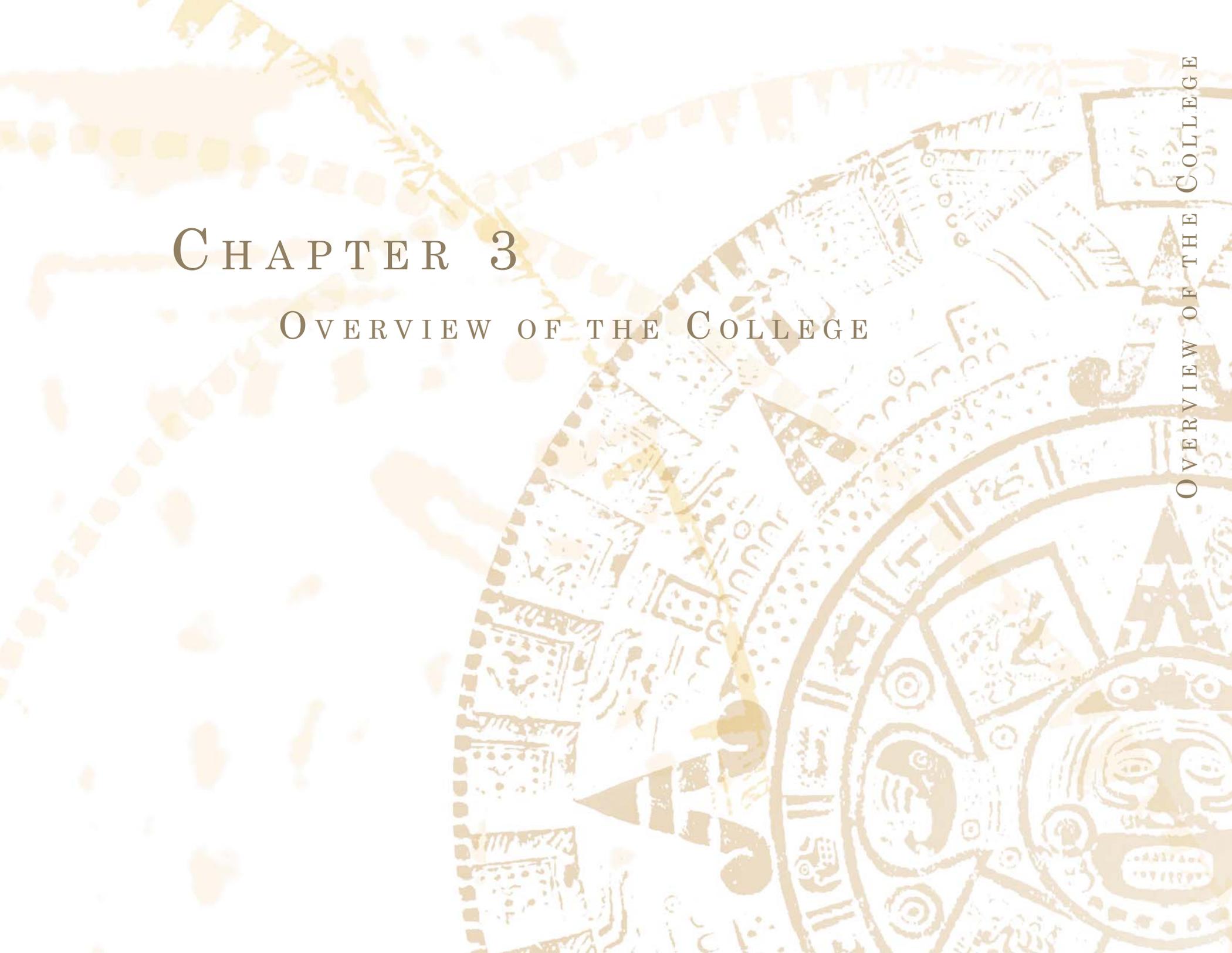
Shared Consultation Council Prioritization Process for Allocating Discretionary Funding



Source: Institutional Program Review Committee February 27, 20113

# CHAPTER 3

## OVERVIEW OF THE COLLEGE







Higher Education Center San Ysidro (HEC SY) is located in a small community in the southwest portion Southwestern College service area. This community, located on the southern border is predominately residential with a population that is approximately 75% Hispanic. San Ysidro has a median household income of \$31,791. The HEC SY has historically offered over 130 different courses and a full array of services to meet the student needs, including financial aid and all aspects of counseling. The center accommodates approximately 1,500 students each semester but has been constructed to accommodate a student body of 2,000. The career and technical education (CTE) programs specific to this Center are Child Development and Bilingual Legal Interpreter.

The HEC SY temporarily closed in the fall of 2007 for major reconstruction funded by Proposition AA. The center's staff and curriculum was shifted to the HEC NC and Higher Education Center Otay Mesa (HEC OM) and the Chula Vista campus while a new, larger two-story facility was constructed in San Ysidro. The new state-of-the-art 18,000 square-foot, two-story Center replaced an original one-story 7,500 square-foot temporary building, which was in place since 1988.

The 77,000 square foot HEC OM, which opened in the fall of 2007, makes higher education more accessible to the residents of South San Diego County. This full service center provides courses in general education and transfer studies as well as basic skills. Additionally, the Otay Mesa facility houses a number of CTE programs specific to this Center such as Nursing, Paramedic, Fire Science, Emergency Medical Technology and a Police Academy. As of fall 2012, in addition to the instructional programs, the HEC OM hosts offices for the Center for International Trade and Development (CITD). The new state of the art center has an initial capacity to serve up to 5,000 students, with a projected build-out capacity of 10,000. Otay Mesa is a community of 20,413 located

in the eastern part of San Diego along the U.S./Mexican border. The Center provides educational opportunities to a geographic area that currently provides 14% of the student population at the District. This community is zoned as the industrial base for the City of San Diego and plays an expanding role in international manufacturing with Mexico. There are approximately 450 companies in the Otay Mesa community employing an estimated 12,000 people. There is also a large airport facility that is utilized by cargo carriers but is being studied as an alternative to the traffic and congestion at San Diego's existing commercial airport. Business development incentives offered through the State of California's Enterprise Zone and Foreign Trade Zone designations have contributed to making this one of the busiest point of entries into the United States for manufacturers operating across the border.

Southwestern College offers the Associate of Arts (AA) degree in some 50 different majors; the Associate of Science (AS) degree in more than 80 different majors; Career Technical Education (CTE) Certificates in over 100 different majors; as well as a host of non-credit offerings for personal and professional development through the College's Continuing Education department.

Of the more than 1,100 community colleges nationwide, Southwestern College consistently places among the top 100 schools in the number of associate degrees conferred. Southwestern College is also the producer in the nation for Hispanic students. Southwestern College has continuously received accreditation by the Accrediting Commission for Community and Junior Colleges (ACCJC), Western Association of Schools and Colleges.

A map of the community college service areas in San Diego County, located on the next page, illustrates the portion of the County, which is the official service area of the Southwestern College District. The official District area is outlined in bold and shaded in green covering the southwestern corner of the County.





# CHAPTER 4

## MISSION, VISION, VALUES







# CHAPTER 5

## ENVIRONMENTAL SCANS





# Environmental Scan

## A. External Scan

### College in Context to Its Environment

As noted above, Southwestern College consists of its main campus on Otay Lakes Road in Chula Vista, the National City, Otay Mesa, and San Ysidro Educational Centers and the Crown Cove Aquatic Center in the Silver Strand State Beach. The College has also developed a distance education program that is supported by units located the Chula Vista campus. There are several instructional programs operated during evening hours and located at a high school and other properties throughout the District service area. The official District service area is the southern portion of San Diego County from the Pacific Ocean east to the County line.

### Economic Conditions<sup>1</sup>

As part of the external scan process, the economic climates at the national, state and regional levels were researched and reviewed. While the economic conditions at these levels may appear to be removed from the day-to-day operations of the College, they will have a significant impact on the direction the College takes in the future. The sections that follow outline the findings from this review.

### National

Based on the most current information from the Kyser Center for Economic Research (Los Angeles, California), the national recession has hit bottom and the economy is beginning to rebound. Gross

Domestic Product (GDP), the best measure of economic output, has regained the territory lost during the recession of 2007 to 2009.

The U.S. economic recovery, however, has been very unbalanced and unstable. Generally, it has been led by three factors: 1) Federal government spending (including the Bush Administration's Troubled Assets Relief Program, or TARP) and the Obama Administration's American Recovery and Reinvestment Program, or ARRA); 2) growth in exports; and 3) consumer spending. While consumer spending only registered a 1% gain over the past three years, the base for consumer spending is so large that even a slight upturn or a downturn can have an enormous impact on the economy.

Economic forecasts indicate that the U.S. economy is recovering. However, it continues to be dragged down by a slow-moving real estate market with massive numbers of foreclosures pending in some states, decreased business investment spending, declining revenues and reduced spending by state and local governments, and prolonged and contentious debate regarding Federal "fiscal cliff" followed by sequestration implemented March 1, 2013. Employment, which fell precipitously in 2008 and 2009, saw an increase of 1.1 million jobs for 2010 and a 1.2% gain in 2011. Job growth in the first six months of 2012 was mixed, but posted a 1.4% gain year-to-year. The unemployment rate should lower to around 7.7% by the end of 2013. While this is encouraging, it needs to be put in perspective. A total of 8.4 million jobs were lost from 2007 to 2009. This translates to a jobs deficit of millions. Viewed in this light, it will take labor markets several years to get back to pre-2007 employment levels.

Following are some the key indicators for the national economy in moving into 2012/2013 and beyond:

<sup>1</sup> Sources for the determination of economic conditions included: Federal Level: Bureau of Economic Analysis, Bureau of Labor Statistics, Congressional Budget Office, Federal Reserve Bank, Office of Management and Budget, U.S. Census Bureau. State Level: California Board of Equalization, Department of Finance, Employment Development Department (Labor Market Information), and California Association of Realtors. Regional Level: San Diego Council on Government (SANDAG), San Diego City and County Government, City of Chula Vista. Private Level: The Kyser Center for Economic Research, San Diego County Economic Development Corporation, South Bay Economic Development Council, San Diego Workforce Partnership, Environmental Science Research Institute (ESRI) Data Systems, Economic Modeling Systems Incorporated (EMS) Data Systems.





Following are the Key Economic Indicators for the U.S. Economy:

U.S Economic Indicators (annual % change except were noted)

Indicator	2006	2007	2008	2009	2010	2011	2012f	2013f
Real GDP	2.7	1.9	-0.3	-3.5	3.0	1.7	2.0	2.2
Nonfarm Employment	1.8	1.1	-0.6	-4.4	-0.7	1.2	1.4	1.4
Unemployment Rate (%)	4.6	4.6	5.8	9.2	9.7	9.0	8.2	8.0
Consumer Price Index	3.2	2.8	3.8	-0.3	1.6	3.2	2.2	1.9
Federal Budget Balance (FY, \$billions)	-\$248	-\$162	-\$455	-\$1,415	-\$1,294	-\$1,297	-\$1,134	-\$806

Annual percent change except where noted as “f” or a forecast

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Office of Management and Budget, Keyser Center for Economic Research, Los Angeles Economic Development Commission

U.S Interest Rates (annual average %)

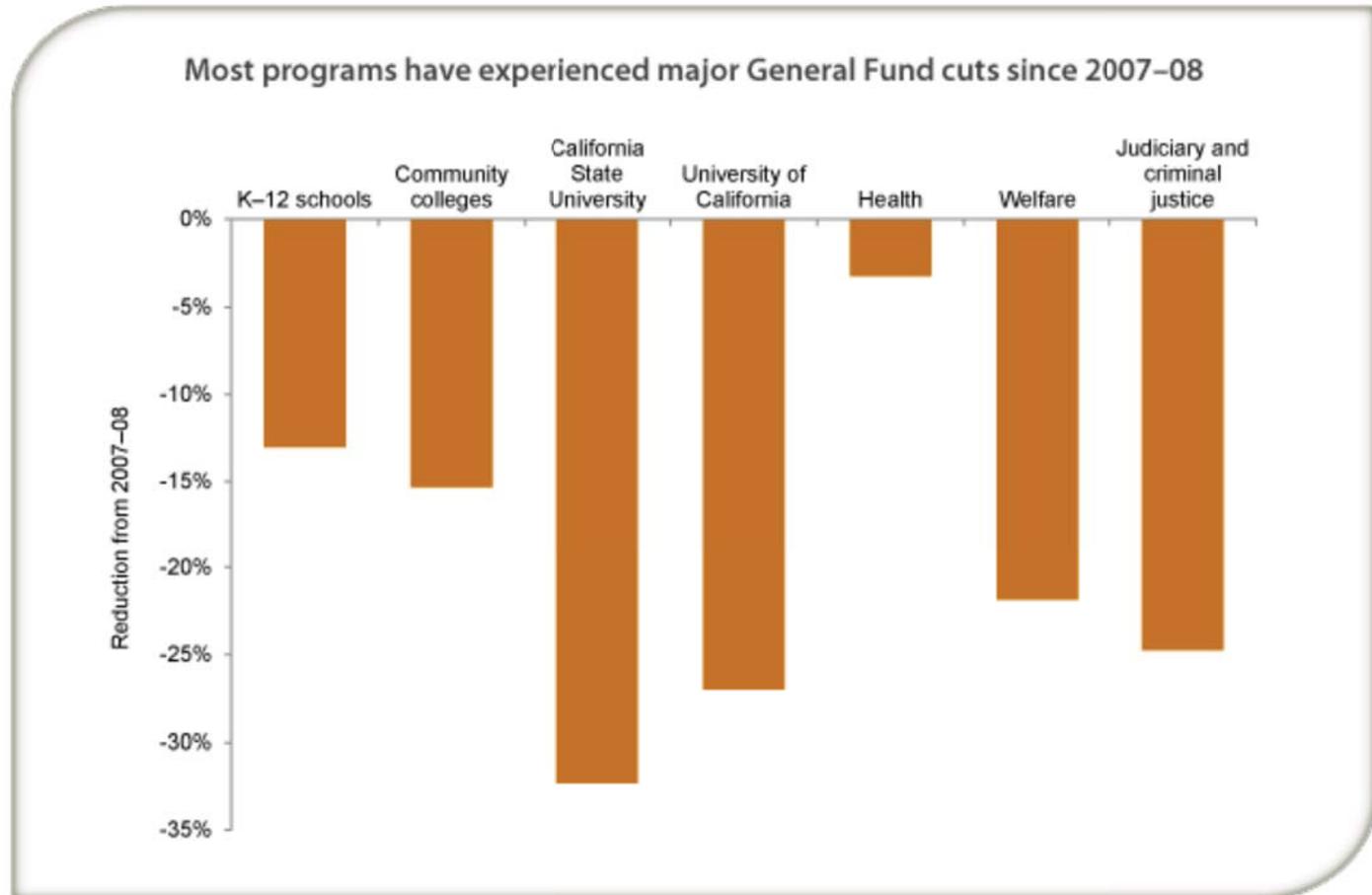
Category	2006	2007	2008	2009	2010	2011	2012f	2013f
Fed Funds Rate	4.97	5.02	1.92	0.16	0.18	0.10	0.10	0.10
Bank Prime Rate	7.96	8.05	5.09	3.25	3.25	3.25	3.25	3.25
10-Yr Treasury Note	4.80	4.63	3.66	3.26	3.22	2.79	1.84	2.22
30-Year Fixed Mortgage	6.41	6.34	6.04	5.04	4.69	4.46	3.90	4.25

Sources: Federal Reserve Bank, Keyser Center for Economic Research, Los Angeles Economic Development Commission





## State Expenditures on Major Programs Since 2007-08



Source: The 2012-13 Budget: California Spending Plan. Legislative Analyst's Office. September 2012.  
California Spending Plan 2010-11, November 2010.

Note: Change is calculated as the difference between the 2012-13 Budget Act and actual 2007-08 spending levels.  
From: Just the Facts: California's State Budget: Impact of the November Election, PPIC, 2012.





- Population Growth: The state's population as of July 2011 was 37.6 million. It is projected to reach 37.9 million by mid-2012 and 38.2 million by 2013. The sheer volume of people within the state creates an economic engine and GDP that is ranked in ninth place compared to all nations in the world.

### Minuses

- Housing/Housing Related Activities: The construction of new homes, particularly multi-family dwellings, has started up. In 2009, only 36,421 housing permits were issued. For 2010, there were 44,601 new housing starts. 2011 saw the number of single-family residential units at only 47,092. The 2012 forecast was for 58,500 permits, while the 2013 forecast is for 76,000 permits. However, these numbers are a fraction of the 2004 peak, when new housing starts registered 212,960. These statistics underscore the condition of the current housing market.
- Environmental Regulations: AB 32 (greenhouse gas legislation) will present business/industry and the consumer with many new regulations. In the short-run it is projected to have a dampening impact on jobs and the longer-term impact on jobs is unknown.<sup>3</sup> New jobs will likely come from building an infrastructure to support alternative fuels.

Summary: Recessionary employment losses are diminishing. Still, there is a considerable gap between pre-2007 and the current employment/unemployment conditions. California was at 5.4% unemployment in 2007 as compared to a rate of 10.7% in 2011. As firms gain confidence that the recovery is for real, an upturn in

<sup>3</sup> California Legislative Analyst. *Net Impact of AB 32 on Jobs*. Retrieved February 7, 2013 from [http://www.lao.ca.gov/reports/2010/rsrc/ab32\\_impact/ab32\\_impact\\_030410.aspx](http://www.lao.ca.gov/reports/2010/rsrc/ab32_impact/ab32_impact_030410.aspx)

employment will be experienced.

Measured in absolute numbers the largest employment gains for 2012 were documented by the Employment Development Department (EDD) in three occupational groups. These are Office and Administrative Support (79,700 jobs), Sales and Related (60,200 jobs), and Food Preparation and Serving Related (45,000 jobs). Occupations with the fastest growth rates are Computer and Mathematical (7%); Arts, Design, Entertainment, Sports and Media (5.4%); and Health Care Support (4.6%).

The short-term outlook for the California economy is better, it has moved from recession to recovery. The economy is at least headed in the right direction, although there is still a long way to go to get back to pre-recessionary levels. State government will need to address its deficit spending issues and the housing market will need to improve before the economy can move beyond marginal, incremental progress.

### Implications for Southwestern College:

- While the state economy is improving, it is improving slowly.
- California's unemployment rate has remained high (9.6%) through 2012.
- The projected State budget deficits through 2012 will likely trigger more belt tightening for state postsecondary institutions and for state sponsored capital construction projects, even with the passage of Proposition 30 in November.
- Housing starts remained at low levels through 2012, but are starting to pick up at the end of the year.
- Energy costs, for gasoline and natural gas likely will rise. The impacts of AB 32 (California Greening) may also create



commercial crops were nursery plants and avocados. The region concentrates in high-value crops and produces the highest dollar value per acre of any county in California.

Per capita income is slightly above the State average. The median household income for San Diego County from 2006-2010 was estimated at \$63,069, just above the state and national averages.

Revenue generated from taxable sales averaged 2.0% on an annual basis between years 2001 and 2011. New housing starts saw a significant decrease from year 2001 to 2011. For comparison, at the height of construction in 2003, new housing starts were 18,314. The construction sector of the economy has been depressed for the past several years. But the forecast is for improvement in 2013, with a projection of new home construction permits increasing 26.4% to 5,500. Home sales, particularly multi-family dwellings, have been on the rise in 2012.

### San Diego County Summary of Key Economic Indicators

Year	Population	Nonfarm Emp	Unemploy- ment Rate	Per Capital Income	Median HH Income	Taxable Retail Sales
2001	2,870,100	1,218,600	4.2%	\$22,926	\$47,137	\$26,300,000,000
2011	3,131,300	1,231,200	10.0%	\$28,691	\$57,668	\$32,000,000,000
11 Yr. Change	9.1%	1.0%		25.1%	22.3%	21.7%
Annual Av.	0.8%	0.1%		2.3%	2.0%	2.0%

Source: ESRI Data Systems; California Department of Finance; Employment Development, Labor Market Information

### Comparison of Key Economic Indicators

2010	Population Growth Rate	Unemploy- ment Rate	Per Capita Income	Median HH Income
San Diego	0.67%	10.50%	\$28,691	\$57,668
State	0.66%	12.40%	\$27,562	\$57,587
Nation	0.67%	9.60%	\$26,739	\$54,442

Source: ESRI Data Systems; California Department of Finance; Employment Development, LMI; U.S. Census Bureau



Unemployment in the San Diego region was recorded at 8.3% in November 2012, well below the 9.5% in November 2011. Looking at individual sectors these are the most significant job growth or loss changes over this one-year period.

The San Diego Regional Economic Development Corporation has identified five industries it wants to continue to nurture in order to grow the local economy.<sup>5</sup> They are the following:

1. Clean Technology
2. Defense
3. Software
4. Maritime
5. Life Sciences

<sup>5</sup> Business Thrives in San Diego. Retrieved July 27, 2012 from <http://www.sandiegobusiness.org>

### San Diego County 12-Month Job Growth and Loss (November 2011 to 2012)

Industry	Gain/Loss
Business & Professional Services	8,600
Retail Trade	6,200
Leisure & Hospitality	5,300
Trade, Transportation & Utilities	4,300
Construction	3,000
Education & Health Services	1,600
Financial Activities	1,500
Government	700
Information	500
Manufacturing	-2,000
<b>Total</b>	<b>29,700</b>

Source; San Diego Workforce Partnership. Unemployment Report. November 2012



San Diego is also home to a large concentration of defense assets. The region is homeport to more than 60% of the U.S. Navy's Pacific Fleet and more than 30% of U.S. Marine Corps' operations. Combined, more than 100,000 service personnel are stationed in the region. The defense industry has contributed to the prominent status of the region in science, technology, tourism, biotechnology, communication, marine technology, information technology, manufacturing and aerospace. The direct economic impact can be expressed as noted in the tables below.

2009 Direct Economic Impact From Defense

Category	Amount (\$ billions)	No. Employees
Direct Spending	\$18.2	
Economic Output	\$30.5	
Earnings	\$16.3	
Employment		354,627

Source: San Diego Regional Economic Development Corporation. Defense. 2011

2009 Top Ten Department of Defense Contracts Performed in San Diego County

Recipient	Contracts Value
General Dynamics	\$1,493,474,604
Science Applications International	\$1,475,910,577
Northrop Grumman	\$1,455,091,021
General Atomics	\$1,315,647,326
Harper Construction	\$324,498,526
BAE Systems	\$262,846,222
Tuner-Penick	\$213,303,344
Hensel Phelps Construction	\$177,640,072
Cubic Corporation	\$174,020,374
Booz Allen Hamilton	\$135,562,060
<b>Top Ten Total</b>	<b>\$7,027,994,126</b>

Source: San Diego Regional Economic Development Corporation. Defense. 2011



The life science industry emerged in San Diego in the 1980s and has become one of the most prominent clusters in the country. The region hosts more than 600 life science, bio-medical companies and more than 80 world-renowned research institutions. The industry employs over 25,000 people; the prominent occupations are listed below with 2010 median wage data.

### 2010 Median Wage Data in the San Diego Life Science Industry

Occupation	2010 Median Wage
Clinical Research Coordinators	\$151,720
Biostatisticians	\$86,120
Biochemists & Biophysicists	\$82,760
Chemical Engineers	\$81,760
Biomedical Engineers	\$77,260
Microbiologists	\$66,540
Clinical Technologists	\$61,680
Laboratory Technicians	\$38,500

Source: San Diego Regional Economic Development Corporation. Life Sciences. 2011







professional services which are expected to grow to 38% of total employment.<sup>10</sup>

The City of San Diego Airport Authority is moving forward to enhance the Brown Field area into a Metropolitan Airpark with a massive twenty-year project. The developer, Brown Field International Business Park, LLC (BFIPB) and Distinctive Projects Company, Inc. of Carlsbad, envisions a mix of aviation-related and non-aviation-related businesses on 352 acres of the Brown Field site. The development includes an aviation business center, full-service fixed-based operator (FBO) service center, helicopter operations facility, a 50-acre solar energy park, a hotel and conference center, commercial and retail space, and relocation of the San Diego Air and Space Museum from Balboa Park. The initial phase would encompass 100 acres and be mainly aviation-related improvements. It is anticipated that the development work alone would generate 7,961 temporary construction jobs starting at the end of 2013 and almost 4,000 jobs through ongoing economic activity located within the development.<sup>11</sup>

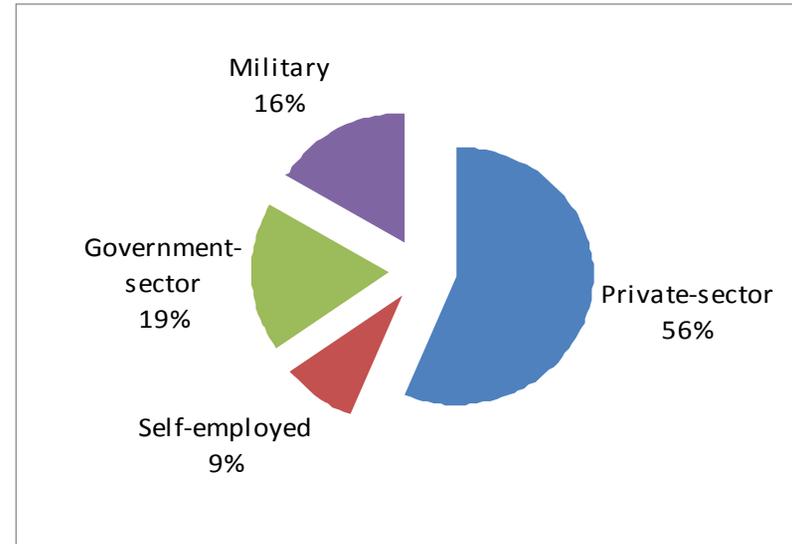
The whole of the South County area of San Diego County has an estimated 7,245 private-sector firms (2007) and 88,644 jobs, or about eight percent of all private-sector employment in the County.

Employment in the South County area is concentrated in retail trade, accommodation and food services, and health care. Twenty-three percent of total employment is in retail trade. General department stores and other clothing and accessory stores serve both the residents of South County, but also many shoppers from

<sup>10</sup> City of San Diego, Otay Mesa Community Plan, April 2011 draft. Retrieved from <http://www.sandiego.gov/planning/community/profiles/otaymesa/> on September 13, 2012.

<sup>11</sup> Indigo Key. *An Economic Impact Analysis for Foley and Lardner, LLP*. November 2007

### South County Employment



Source: South County Economic Development Council. South County Region Employment Profile, 2007



In a collaborative effort the Economic Development Councils in South and East San Diego, in cooperation with the City and County of San Diego launched a study of the sub county areas for the purpose of creating an economic development strategy. That effort identified several industries as potential industries to expand, retain and attract. A discussion of why these particular industry groups may be compatible and successful in the Study Area and an indication of the current industry challenges and needs is found in the August 2011 study.<sup>14</sup>

14 South County Economic Development Council, et. al. *South and East San Diego County 2011 Comprehensive Economic Development Strategy*. August 2011

Potential Target Industries for the Comprehensive Economic Development Strategy Study Area

Industry Group	Typical San Diego/Imperial Annual Wage Range (in 000's)						Employment Growth Projection			Local Historical Growth		
	\$20	\$30	\$40	\$50	\$60	\$70+	Up	Down	Flat	Up	Down	Flat
Agriculture & Fruit/Veg Processing			X				X					X
Biomedical Products				X	X	X	X*				X*	
Biotech & Pharmaceutical					X	X	X					X
Business Services		X	X	X			X			X		
Communications				X			X*			X		
Computer & Electronics					X	X		X			X	
Defense					X	X		X		X		
Design/Creative		X	X				X			X		
Entertainment/Recreation	X	X	X				X			X		
Environmental Tech						X			X	X		
Financial Services					X	X	X			X		
Renewable Energy			X	X	X	X	X			X		
Specialized Health Care			X	X			X			X		
Specialty Foods			X					X*		X		
Travel & Hospitality	X						X			X		
*These industries have experiences only a very slight growth or decline												

Source: South County Economic Development Council, et. al. *South and East San Diego County 2011 Comprehensive Economic Development Strategy*. August 2011



organizations are preparing to provide incentives that are intended to stimulate students to complete degree programs successfully. In private sector, employers have been increasingly screening applicants for employment by requiring college degrees for positions that previously did not require a degree.<sup>16</sup>

While it has been announced that some new federal resources will be allocated for use by community colleges, the Congress is currently also struggling to restrain spending and to reduce debt levels. This will have an impact on the amount of money that the community colleges receive.

President Obama has pushed to increase college graduation rates across the nation. Complete College America, a non-profit organization, was formed to advance this mission. It has enlisted support from 22 state leaders to ensure greater numbers of students acquire degrees. Its publication, *Time is the Enemy*, has focused national attention on several key observations:

- Nontraditional students are the new majority
- Part-time students rarely graduate
- Graduation rates are especially low for students who are of African American or Hispanic descent, as well as students who are older or poorer than the typical student
- Students are wasting time earning excess credits and taking too much time to earn a degree
- Too many students need remediation and too few succeed when they get it<sup>17</sup>

<sup>16</sup> Catherine Rampell. "Degree Inflation? Jobs That Newly Require B.A.'s," *New York Times*. December 4, 2012; Karin Fischer. "A College Degree Sorts Job Applicants, but Employers Wish It Meant More," *Chronicle of Higher Education*. March 8, 2013 p. 26-29

<sup>17</sup> Complete College America. *Time Is The Enemy*. September 2011

The Gates, Ford, Lumina, and Kellogg Foundations as well as the Carnegie Corporation of New York fund their collective work and the efforts of others to promote change in higher education.

The community colleges may be helped by federal legislation to consolidate student loan programs within the US Department of Education and increase the amount of Pell funds per grant. However, recent Congressional proposals to curtail the Pell grant awards may hurt the colleges and students. The long-term impact remains to be seen, but federal aid is now limited to a maximum number of credit hours represented by 150% of the credits required for the program of study the student is pursuing. For a community college associate degree that would be 90 semester credit hours. Veterans on the G.I. Education Bill may be more limited in the credit hours funded by that program. President Obama has signed an executive order to align the monthly repayment rate of federal loans to the level of future wages earned by the student. That may ease the burden of debt for students and make the act of borrowing for a college education more feasible for prospective students. The President has also declared a policy to not enforce deportation on children of illegal immigrants who meet certain conditions and to provide work permits for them. That will ease some burdens in that subset of the population and may stimulate some to attend college who would not otherwise do so.

The Obama administration and the U.S. Department of Education have announced a new emphasis for their involvement with career and technical education through a transformation of the Carl D. Perkins Career and Technical Education Act of 2006 as it comes due for renewal. The new directions are shaped by four key principles:

- (1) Alignment. Effective alignment between high-quality CTE programs and labor market needs to equip students with 21st-

century skills and prepare them for in-demand occupations in high-growth industry sectors;

(2) Collaboration. Strong collaborations among secondary and postsecondary institutions, employers, and industry partners to improve the quality of CTE programs;

(3) Accountability. Meaningful accountability for improving academic outcomes and building technical and employability skills in CTE programs for all students, based upon common definitions and clear metrics for performance; and

(4) Innovation. Increased emphasis on innovation supported by systemic reform of state policies and practices to support CTE implementation of effective practices at the local level.

Differences in the current provisions of the Perkins Act and the proposed changes were announced in April 2012.<sup>18</sup>

After the Higher Education Opportunities Act was passed by Congress in 2008 a series of new federal regulations have been issued to improve program integrity where Title IV financial aid funds are involved. Regional accrediting bodies are now expected to provide closer scrutiny of member institutions on a range of new topics such as:

- The analysis and use of student achievement data, expressed at a variety of levels and in different ways, to improve programs and services.
- Specific attention must be given to the institution's longitudinal data on student achievement, disaggregated and analyzed in a variety of forms, to identify any concerns about stability and achievement of the institution's mission.
- Conformance of credit hours awarded to the "Carnegie Unit" standard as found in a variety of curriculum and instructional settings.

18 U.S. Department of Education, Office of Vocational and Adult Education. *Investing in America's Future: A Blueprint for Transforming Career and Technical Education*. April 2012.

The efficacy of methods that the institution uses to verify the identity of students enrolled in distance and correspondence education classes and steps taken to preserve the integrity of the credits and grades awarded.

- Public disclosure of educational costs and employment prospects for students in any career and technical program designed to prepare those students for gainful employment upon graduation.

In part, stimulated by prior federal government actions, regional accrediting bodies are insisting that greater attention be given to student learning outcomes. The expectation by the Accrediting Commission for Community and Junior Colleges (ACCJC) is that proficient assessment processes will be routinely practiced at the course, program, and degree levels by all member institutions by fall 2012.

These new areas are in addition to the traditional goals of accreditation:

1. Providing assurance to the public that the education provided by the institution meets acceptable levels of quality
2. Promoting continuous institutional improvement
3. Maintaining the high quality of higher education institutions in the region

Although subtle, the Commission has changed the term used for the initial phase of the comprehensive reaccreditation process from a self-study to a self-evaluation. The change underscores the increased emphasis that claims made by the institution must be supported by evidence and evaluation.<sup>19</sup> The change also echoes some of the national discussions about educational quality and accreditation.

19 Accrediting Commission for Community and Junior Colleges. *Preparing for A Comprehensive Visit*. Workshop materials presented on October 21, 2011

One of the points in the national discussion is to press institutions to supply more measures of college outcomes and output. In short, what is the return on investment for the public’s support of higher education? Increasing the count of completers, certifying learning accomplished, ensuring able graduates who can help the nation compete in the global market place and addressing the achievement gap between social-economic and ethnic groups are other themes in the national discussions. These themes bring renewed pressures on regional accreditors such as ACCJC to expect more of member institutions.

- One recently announced expectation is the requirement for institutions to set standards for student achievement for programs and assess institutional performance against those standards.
- Low performing institutions will be expected to do improve their rates.
- Assessment knowledge and skills students are certified to have mastered, including readiness to participate in the labor market.
- Make more information available to the public.<sup>20</sup>

The President’s challenge to the nation, which was aimed at increasing the numbers of college graduates, has not been ignored in California. Within California, the Public Policy Institute (PPI) has estimated that one million additional bachelor’s degree holders will be needed by 2025 to meet workforce needs in California.<sup>21</sup> The Community College League of California (CCLC) launched an “alternative futures” project, 2020 Vision for Student Success, to

<sup>20</sup> Barbara Beno, ACCJC President. “Accreditation 2013 and Beyond,” remarks to the Accreditation Institute of the Academic Senate for California Community Colleges, February 8, 2013.

<sup>21</sup> Hans Johnson and Ria Sengupta *Closing the Gap: Meeting California’s Need for College Graduates* (San Francisco, CA: Public Policy Institute of California, April 2009)

respond to the national graduation goal by identifying policy and practice changes that could be implemented to increase student achievement. To contribute its part toward achieving the national graduation goal, California needs to produce a total of 1,065,000 degrees or certificates per year. That translates to producing an additional 23,000 degrees and certificates per year, a 5.2% annual increase.<sup>22</sup> These aspirations are closely coupled with the need to assure the quality of the awards conferred. A recent national report notes the following:

Quality in higher education must be defined in terms of student outcomes, particularly learning outcomes.... The value of degrees and credentials- both for the individual and society as a whole- ultimately rests on the skills and knowledge they represent... Ultimately, learning is what students’ need, what degrees and credentials should represent and what higher education should provide to everyone who seeks it. (p. 1) <sup>23</sup>

The following State initiatives are intended to increase student success rates:

- The Board of Governors’ basic skills initiative seeks to enable more students to overcome their academic deficiencies.
- The Student Success Task Force, formed under the provisions of SB1143, prepared a set of recommendations to bolster measures designed to promote student success and degree completion.
- Additional legislation, SB1440 Student Transfer Achieve-

<sup>22</sup> 2020 Vision: A Report of the Commission on the Future, (Sacramento, CA: Community College League of California, 2010)

<sup>23</sup> A Stronger Nation Through Higher Education: How and Why Americans Must Achieve a “Big Goal” for College Attainment. A Special Report, (Indianapolis, IN: Lumina Foundation for Education, 2009)



The Task Force recommendations come in the wake of a severe shortfall in resources for the State’s public higher education institutions. Fiscal support to the community colleges has been sharply curtailed in recent years. Since 2008-09 dwindling state support for the community college system, approximately \$800 million, has translated into an historic 17% drop in enrollment or more than 485,000 students. As noted above, the prospects for a quick recovery to the state’s economy and ability to support higher education are not good. The Legislature has increased the enrollment fee that students pay from \$26 per unit to \$46 per unit. Governing boards for the University of California and the California State University systems have also responded to reduced State support by increasing their tuition fees. Both university systems are reducing the number of students that are accepted and redirecting many to the community colleges. The community college system is overwhelmed with enrollment. As a result, class sections, which have been reduced in number, fill quickly causing students to take more time to earn their degrees. The passage of Proposition 30 will curtail some of the severe budget cutting for the immediate future.

The Governor’s announced proposals for the 2013-14 state budget contained some significant policy changes for the community college system. Some highlights included:

- Changing the census-based apportionment system to provide a larger amount to the students who are still enrolled at the end of the term.
- Limit state-supported instruction to 90 semester units.
- Require all students seeking a BOG waiver to complete a Free Application for Federal Student Aid (FAFSA).
- Shifting the remaining adult education program from K-12 schools to community colleges.

- Incentives to increase the use of technology, including more distance education.

Given the circumstances of the economy the new Vice Chancellor for Economic and Workforce Development has listened intently to the perspectives articulated at a statewide economic summit held in May 2012. The themes of the summit were to recognize that the California economy is better described as a series of regional economies rather than a unified state economy. Further, the summit participants identified a need to better match job requirements to educational preparation.<sup>24</sup> The Chancellor’s Office has translated these discussions into a four-part initiative called Doing What Matters for Jobs and the Economy. The initiative has four parts:

- Giving Priority. This part of the initiative called for regional discussions and agreement among community colleges to focus on a limited number of industrial sectors that their efforts would target based on labor market information and regional program capacities.
- Make Room. This part of the initiative called for community colleges to reconsider the wide range of programs they were offering and retool or cut out those that were not well matched to the regional economy.
- Student Success. The third part of the initiative calls for a focus on ways to promote greater student success in courses and programs and ways to better measure outcomes through closer collaboration with K-12 systems and the EDD in data collection and program evaluation. That collaboration at the regional level will be incentivized by a new approach to funding projects from the Chancellor’s Office.

<sup>24</sup> California Forward. *California Economic Summit Action Plan*. July 2012



### Key Demographic Considerations

Demographic attributes for the County and State are provided in the table below. It is notable that, for San Diego County, the projected percentage of increase in population and households between the year 2010 and 2015 (4% each) is slightly more than that of the State. The projected change in average household size and median age are on the order of four times the change throughout the state. The median household income change projected between the year 2010 and 2015 is 4.2% above the State percentage.

### San Diego County vs. State of California Demographic Projections

Element	San Diego County			2000 to 2015	2010 to 2015
	2000	2010	2015	% Change	% Change
Population	2,813,833	3,120,279	3,246,592	15%	4.0%
Households	994,677	1,086,865	1,130,792	14%	4.0%
Average Household Size	2.73	2.75	2.78	2%	1.1%
Median Age	33.2	34.7	35.1	6%	1.2%
Median Household Income	\$47,137	\$57,668	\$67,932	44%	17.8%
Per Capital Income	\$22,926	\$28,691	\$32,695	43%	14.0%

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, ESRI Market Profile

Element	State of California			2000 to 2015	2010 to 2015
	2000	2010	2015	% Change	% Change
Population	33,871,648	37,983,948	39,328,336	16%	3.5%
Households	11,502,870	12,662,806	13,063,778	14%	3.2%
Average Household Size	2.87	2.93	2.94	2%	0.3%
Median Age	33.3	34.4	34.5	4%	0.3%
Median Household Income	\$47,622	\$60,992	\$69,315	46%	13.6%
Per Capital Income	\$22,711	\$27,845	\$31,883	40%	14.5%

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, ESRI Market Profile

The rate of projected growth on several measures between 2010 and 2016 for San Diego County are comparable to those of the State. However, both the County and the State exceed the median household income rates of change expected throughout the nation.

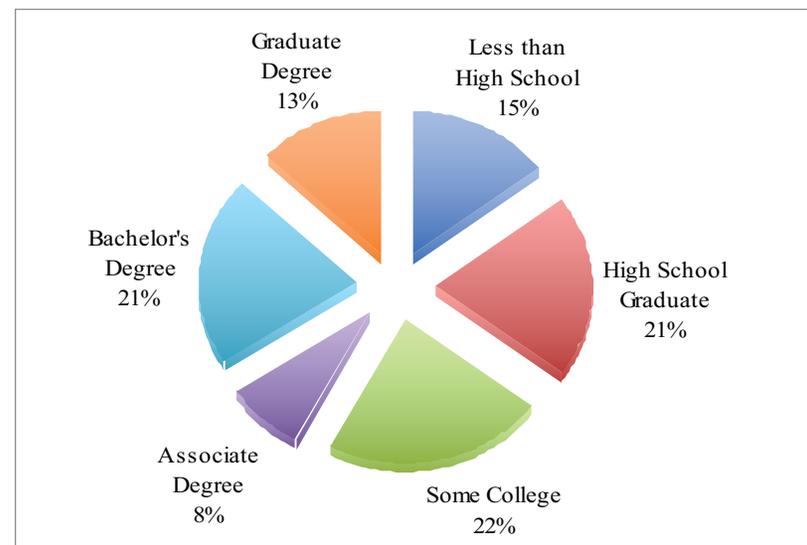
### San Diego County vs. State vs. National Rates of Change

Trends	Annual 2010-2016 Growth Rates		
	SD County	State	National
Population	0.67%	0.66%	0.67%
Owner Occupied Housing Units	1.01%	0.99%	0.91%
Median Household Income	3.33%	3.39%	2.75%

Source: U.S. Bureau of the Census, 2010 Census of Population and Housing, ESRI Demographic and Income Profile

The percentage of San Diego County residents age 25 or older who are high school graduates is 20.7 percent or -2.2 percent lower than the state average. The portion of County adults age 25 or older that reported having less than ninth grade education or some high school, but no diploma, is almost 15% of the adult population. These data suggest there is a large audience to which the College might appeal in providing its educational services.

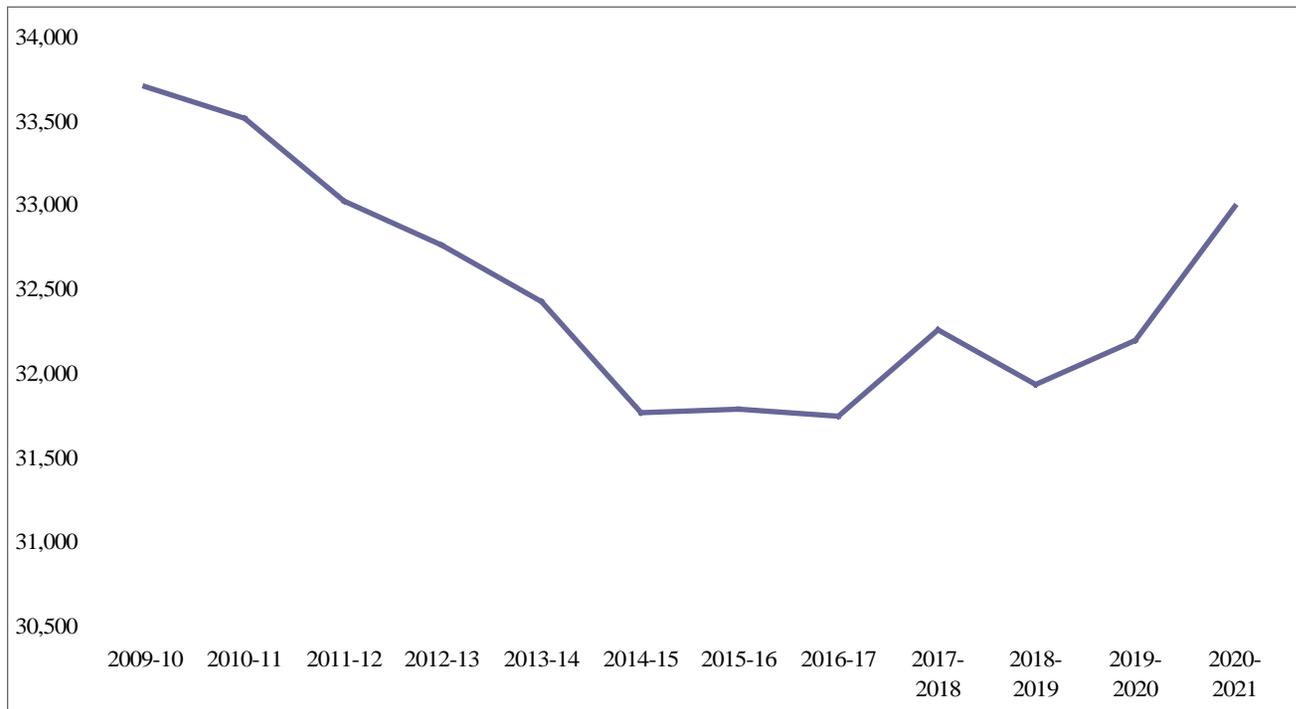
### San Diego County Educational Attainment, Age 25+ (2010)



Source: US Census Bureau, ESRI Market Data

The California Department of Finance projects an annual 18% decrease in the number of high school graduates between 2009-10 and 2020-21 in San Diego County. The graphic below illustrates a gradual increase between 2016-17, followed by a sharper increase from 2018-19 out to 2020-21.

### San Diego County Expected High School Graduates

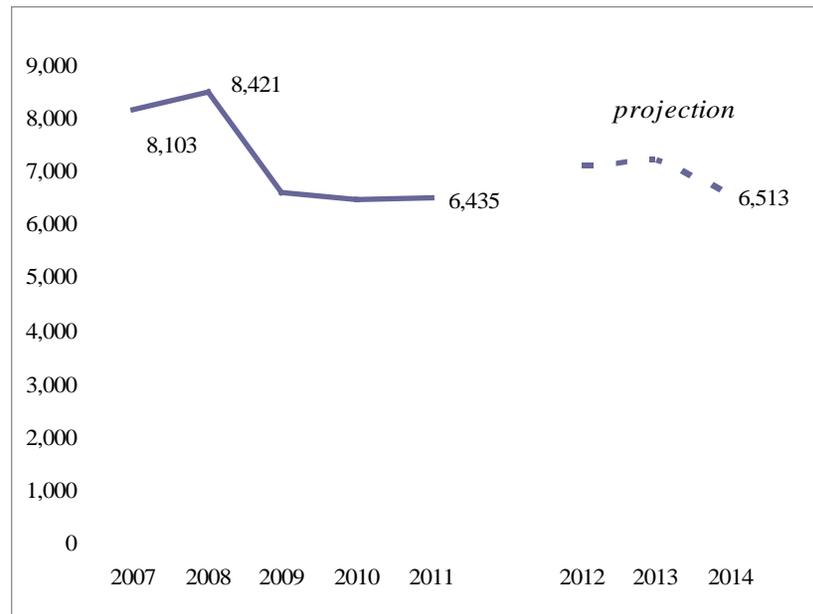


Source: State of California, Department of Finance, California Public K-12 Graded Enrollment and High School Graduate Projections by County, 2011 Series. Sacramento, California, October 2011.

Although SWC enrolls recent high school graduates from four public high school districts (Sweetwater, Coronado, Grossmont and San Diego), the primary feeder high schools are within the Sweetwater Union High School District. The size of the high school senior class in the Sweetwater District schools parallels the decline shown throughout San Diego County. The estimate of future enrollments 2012 to 2014 (dashed line) illustrates the continuation of that decline in the Sweetwater District. The College may experience a decline in enrollment from the most recent high school graduating classes.

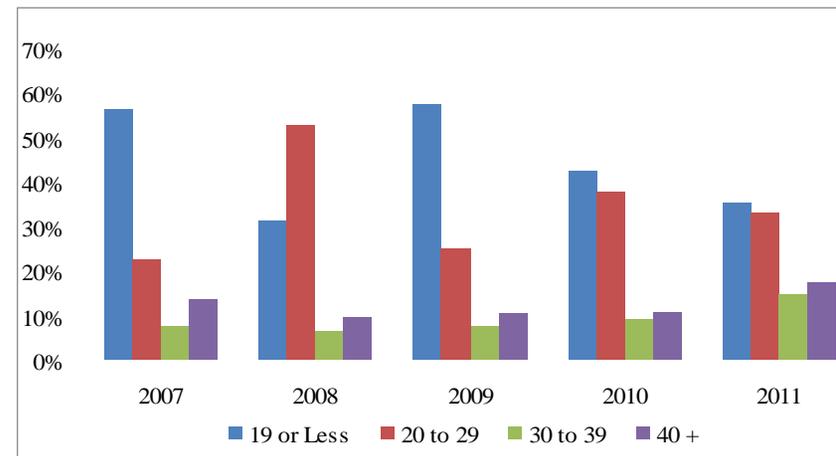
In the last five fall terms, younger students (under age 19 and regardless of their high school of origin) have, on average, represented 45% of the first-time students enrolling at the College.

### Senior Class Enrollments, Sweetwater Union High School District



Source: California Department of Education; analysis Cambridge West Partnership

### First-time, Fall Term Students by Age Group



Source: Chancellor's Office Data Mart 2.0; analysis by Cambridge West Partnership

There is a wide range of accountability performance index (API) scores among the high schools that commonly send students to the College. The average base API score from 2007-2011 for each high school is displayed in the table below. The API is a composite score ranging from 200 to 1000 based on several standardized exams taken by the high school students.

Average API Scores, 2007 to 2011

District	School	Average
Sweetwater	Bonita Vista Senior High	801
Sweetwater	Olympian High	801
Sweetwater	Eastlake High	789
Sweetwater	Otay Ranch Senior High	769
Sweetwater	Chula Vista Senior High	749
Sweetwater	Hilltop Senior High	739
Sweetwater	Sweetwater High	728
Sweetwater	Castle Park Senior High	726
Sweetwater	Mar Vista Senior High	704
Sweetwater	Options Secondary	701
Sweetwater	Southwest Senior High	694
Sweetwater	San Ysidro High	684
Sweetwater	Montgomery Senior High	672
Sweetwater	East Hills Academy	602
Sweetwater	Palomar High	548
Sweetwater	Sweetwater Community Day	534
Sweetwater	Bounce Back Independent Study	512
Sweetwater	MAAC Community Charter	498
Sweetwater	Alta Vista Academy	404
Coronado Unified	Coronado High School	859
San Diego Unified	Morse High School	623
Grossmont Union High	Mount Miguel High School	654

Source: California Department of Education; analysis Cambridge West Partnership

There are also differences among the schools regarding the college readiness for English or mathematics as measured by the California State University Early Assessment Program (EAP) placement recommendations.

CSU Early Assessment Program Results, 2012

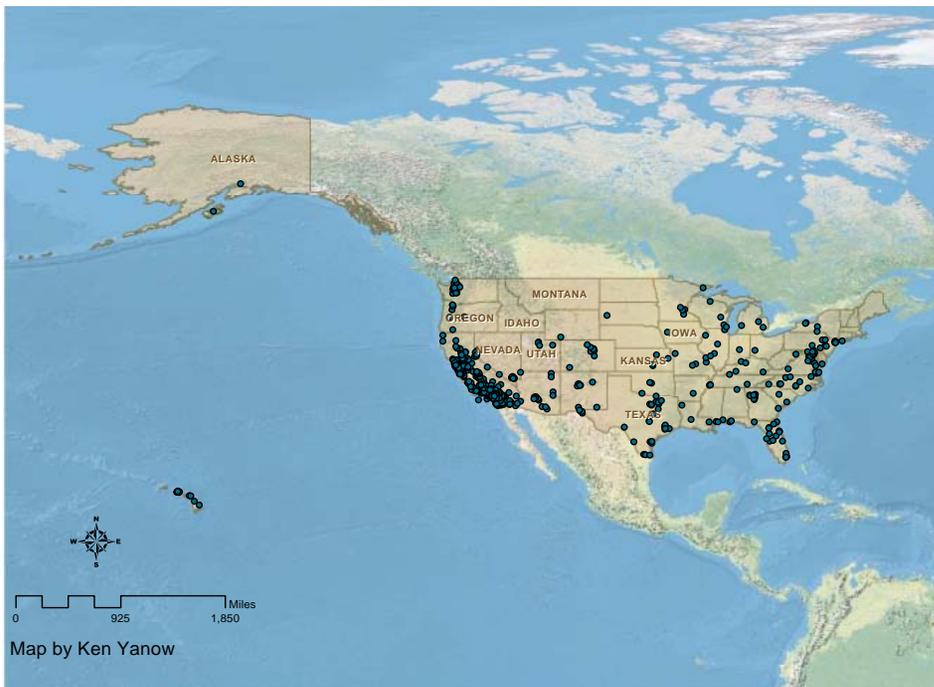
EAP Recommendation	Sweetwater (all HS)		Coronado HS		Morse HS		Mount Miguel HS	
	Participation %	Placement %	Participation %	Placement %	Participation %	Placement %	Participation %	Placement %
<b>English</b>	96%		19%		97%		94%	
Ready for college		23%		0%		17%		10%
Ready- conditionally		16%		0%		16%		11%
Not ready		61%		100%		66%		79%
<b>Mathematics</b>	92%		31%		90%		69%	
Ready for college		11%		24%		3%		6%
Ready- conditionally		52%		56%		48%		36%
Not ready		37%		20%		48%		58%

Source: California State University, Office of the Chancellor Early Assessment Program Test Results

The participation percentage in the table above reflects the number of students who completed the EAP exams compared to the number of students who participated in the California Standards Test (EST) exams. Participation in the EAP is voluntary. Perhaps the relatively low participation rate at Coronado High School may be attributed to those students intending to apply for UC or private institutions. The values in the placement percent column represent the portion of participating students whose scores met the content standards for CSU and the California community colleges. Additional information about the academic preparation strength of incoming students to the College is discussed in the internal scan section of this Plan.

The College has attracted students from throughout the United States as illustrated in the graphic below that was prepared for a zip code study conducted by College faculty. In some cases the out-of-area student location markers represent active duty military personnel reporting the zip code for their home of record. In other cases, the out-of-area markers are students enrolled in distance education offerings sponsored by the College.

Southwestern College Students (Fall 2007 to Fall 2011)



Based upon an analysis of residential zip codes reported by enrolled students (see discussion below), an area of San Diego and adjacent Baja California that encompasses a 20-minute driving time from the main campus site comprises the territory effectively served by Southwestern College. This area is illustrated in the graph below.

### Southwestern College Effective Service Area



Source: Environmental Sciences Research Institute (ESRI); analysis by Cambridge West Partnership









U. S. Census Bureau calculates the portion of a population considered to be below the poverty level by considering both family income and the size and composition of the family. That data is not available for all of the subareas served by the College. However, over 10% of the population age 18 to 64 in Imperial Beach, Lemon Grove, and National City are reported as below the poverty level based on the American Community Survey data from 2006-2010.

Unemployment is the highest in National City (18.2% in July 2012) followed by 15.2% in Imperial Beach. The communities of Chula Vista, Lemon Grove and Spring Valley range between 11% and 11.9% unemployment in July 2012. Throughout the San Diego region 46% of the unemployed are considered long-term unemployed (six plus months without a job). Of all the unemployed served by the career centers network in the region, 44% were between the ages of 41 and 55.<sup>26</sup>

<sup>26</sup> Peter Callstrom, President & CEO, San Diego Workforce Partnership, presentation to the South County Economic Development Council Economic Summit September 21, 2012.

**Median Household Income Changes 2010 to 2016f and Percent of Population 18-64 Below Poverty 2006-2010**

Geography	2010	2016f	Annual Rate of Change	18 to 64 Yrs, % Below Poverty	Unemployment July 2012
State	\$57,587	\$68,019	3.39%	12.4%	10.4%
County of San Diego	\$57,668	\$67,932	3.33%	11.7%	9.3%
City of San Diego	\$55,570	\$65,141	3.23%	13.7%	9.5%
<b>Effective Service Area</b>	<b>\$46,900</b>	<b>\$54,121</b>	<b>2.87%</b>		
Selected Subareas					
Bonita	\$86,467	\$92,477	2.07%	5.9%	7.6%
Chula Vista	\$59,205	\$68,610	2.99%	8.0%	11.1%
Coronado	\$79,621	\$90,622	2.62%	5.5%	6.1%
Imperial Beach	\$42,130	\$49,120	3.12%	10.3%	15.2%
Lemon Grove	\$49,532	\$56,823	2.79%	15.0%	11.9%
National City	\$35,581	\$39,704	2.22%	18.5%	18.2%
San Diego In District	\$54,304	\$62,425	2.83%		
Otay Mesa	\$54,091	\$62,310	2.87%		
East of National City	\$57,315	\$65,231	2.62%		
San Ysidro	\$31,079	\$35,488	2.69%		
Spring Valley	\$59,850	\$69,675	3.09%	9.1%	11.0%
North of National City	\$33,508	\$37,477	2.26%		

Sources: ESRI; U.S. Census Bureau, American Community Survey 5-Yr Averages 2006-2010; EDD Unemployment data retrieved September 28, 2012 from <http://www.labormarketinfo.edd.ca.gov>; analysis by Cambridge West Partnership

With respect to educational attainment of adults, there is evident variation among the communities and areas within the effective service area. Throughout the effective service area 43.9% of adults 25 years of age or older had accomplished high school graduation or less. However, five communities are reported by the U.S. Census Bureau with higher percentages of citizens at that lower level of educational accomplishment. One of these communities, located north of National City, is just outside the official College service area. These communities represent the areas most in need of the educational services offered by the College.

### Educational Attainment Levels of Adults by Community

2010 Educational Attainment, Adults 25 Years or Older	ESA	Bonita	Chula Vista	Coronado	Imperial Beach	Lemon Grove	National City	Otay Mesa	East of National City	San Ysidro	Spring Valley	North of National City
Less than 9th Grade	10.3%	2.8%	8.2%	0.6%	8.8%	5.9%	21.5%	13.1%	7.1%	32.9%	4.4%	19.8%
9th - 12th Grade, No Diploma	9.9%	5.2%	8.3%	2.3%	11.1%	10.8%	16.4%	12.7%	7.5%	19.4%	7.8%	14.5%
High School Graduate	23.7%	18.0%	22.8%	12.8%	29.3%	28.5%	26.4%	34.1%	23.7%	19.8%	27.3%	21.5%
Some College, No Degree	22.7%	21.3%	22.2%	22.5%	28.3%	27.7%	18.9%	20.6%	26.5%	15.6%	26.4%	19.0%
Associate Degree	8.0%	9.7%	9.2%	7.7%	8.4%	8.6%	5.3%	6.7%	9.9%	4.5%	8.7%	6.6%
Bachelor's Degree	16.7%	25.7%	19.5%	28.4%	10.4%	12.0%	8.5%	9.6%	20.8%	5.0%	17.1%	12.1%
Graduate/Professional Degree	8.7%	17.3%	9.7%	25.6%	3.8%	6.6%	3.1%	3.1%	4.5%	2.7%	8.4%	6.5%
<i>Subtotal HS Graduate or Less</i>	<i>43.9%</i>	<i>26.0%</i>	<i>39.3%</i>	<i>15.7%</i>	<i>49.2%</i>	<i>45.2%</i>	<i>64.3%</i>	<i>59.9%</i>	<i>38.3%</i>	<i>72.1%</i>	<i>39.5%</i>	<i>55.8%</i>

Source: ESRI; analysis by Cambridge West Partnership



### Key Cities

A review of fall term College headcount data from 2007 to 2011 reveals that of the 12 cities that dominate the unduplicated student headcounts on average for each fall term, three of them are outside the official College service area. Zips associated with the City of San Diego but within the official service area contributed the most students. The City of Chula Vista ranks first in the average number of students attending the College. Combined, these cities account for 98% of the total fall headcounts.

### Fall Term Unduplicated Headcounts of Students by City of Residence

In District	City	2007	2008	2009	2010	2011	Average 2007-2011	Total 2007-2011	Cumulative % of Total
Y	Chula Vista	8,589	8,907	9,615	8,611	8,860	8,916.4	44,582	
Y	San Diego	4,249	4,301	4,720	4,148	4,316	4,346.8	21,734	
Y	San Ysidro	1,376	1,402	1,624	1,454	1,526	1,476.4	7,382	
Y	National City	1,260	1,345	1,359	1,223	1,271	1,291.6	6,458	
Y	Imperial Beach	633	620	766	700	685	680.8	3,404	
Y	Bonita	693	681	719	622	561	655.2	3,276	
Y	Spring Valley	388	398	431	377	418	402.4	2,012	
Y	Coronado	114	142	122	94	92	112.8	564	
Y	Lemon Grove	110	99	102	91	88	98.0	490	
Y	Dulzura	10	7	5	6	6	6.8	34	
N	San Diego	1,527	1,540	1,550	1,409	1,612	1,527.6	7,638	
N	El Cajon	188	181	202	202	227	200.0	1,000	
N	La Mesa	104	104	107	101	112	105.6	528	97.3%

Source: Southwestern College Research and Planning; analysis by Cambridge West Partnership

The geographical areas of the zip codes from San Diego that are within the official service area are detailed below.

Fall Term Unduplicated Headcounts of Students Living In A San Diego Zip Within the Official District Service Area

Zip	City	Area Description	In District	2007	2008	2009	2010	2011	Average 2007-2011	Total 2007-2011
92154	San Diego	Otay Mesa East and West	Y	2,610	2,814	3,173	2,802	2,851	2,850.0	14,250
92139	San Diego	Paradise Hills, Bay Terraces	Y	818	752	787	682	717	751.2	3,756
92114	San Diego	Emerald Hills, Encanto, Skyline	Y	790	698	727	639	714	713.6	3,568
92153	San Diego	within 92154, Otay Mesa West	Y	26	29	29	21	25	26.0	130
92136	San Diego	Naval Station, San Diego	Y	1	5	2	2	7	3.4	17
92135	San Diego	within 92118, NAS NI	Y	2	1	1	2	2	1.6	8
92155	San Diego	NAB, Coronado	Y	2	2	1			1.7	5

Source: Southwestern College Research and Planning; analysis by Cambridge West Partnership

In addition to the several San Diego zip codes shown above as outside the official College service area, a large number of students have been attending the College from El Cajon and La Mesa. Some of these students may be enrolled in distance education offerings from the College.

Between 2007 and 2011 the relative balance of in-District vs. out-of-District students has remained fairly constant. However, there have been shifts and changes in the city of residence among the in-District enrollments at the College. Participation from the core area

Fall Term Unduplicated Headcounts of Students Living Outside the Official District Service Area

Area/City	2007	2008	2009	2010	2011	Average 2007-2011	Total 2007-2011
North of National City	815	836	881	803	928	852.6	4,263
El Cajon	188	181	202	202	227	200.0	1,000
La Mesa	104	104	107	101	112	105.6	528
<b>Total This Group</b>	<b>1,107</b>	<b>1,121</b>	<b>1,190</b>	<b>1,106</b>	<b>1,267</b>	<b>1,158.2</b>	<b>5,791</b>

Source: Southwestern College Research and Planning; analysis by Cambridge West Partnership

of San Ysidro has increased the most (10.9%). Conversely, student participation from Bonita (-19%), Lemon Grove (-20%) and Coronado (-19.3%) has decreased the most. Participation from active duty military personnel, many of who are based in Coronado, likely accounts for some of the decline as those students are subject to deployment directives in support of overseas military conflicts. The small numbers of students from Dulzura translate into a misleading percentage of change calculation.

Overall, the headcount has increased from 19,869 in 2007 to 20,330 in 2011. This increase occurred in the face of the sharp and persistent reductions in revenue support that have curtailed enrollments significantly throughout the state.

### Changes in Fall Term Unduplicated Headcount by City of Residence

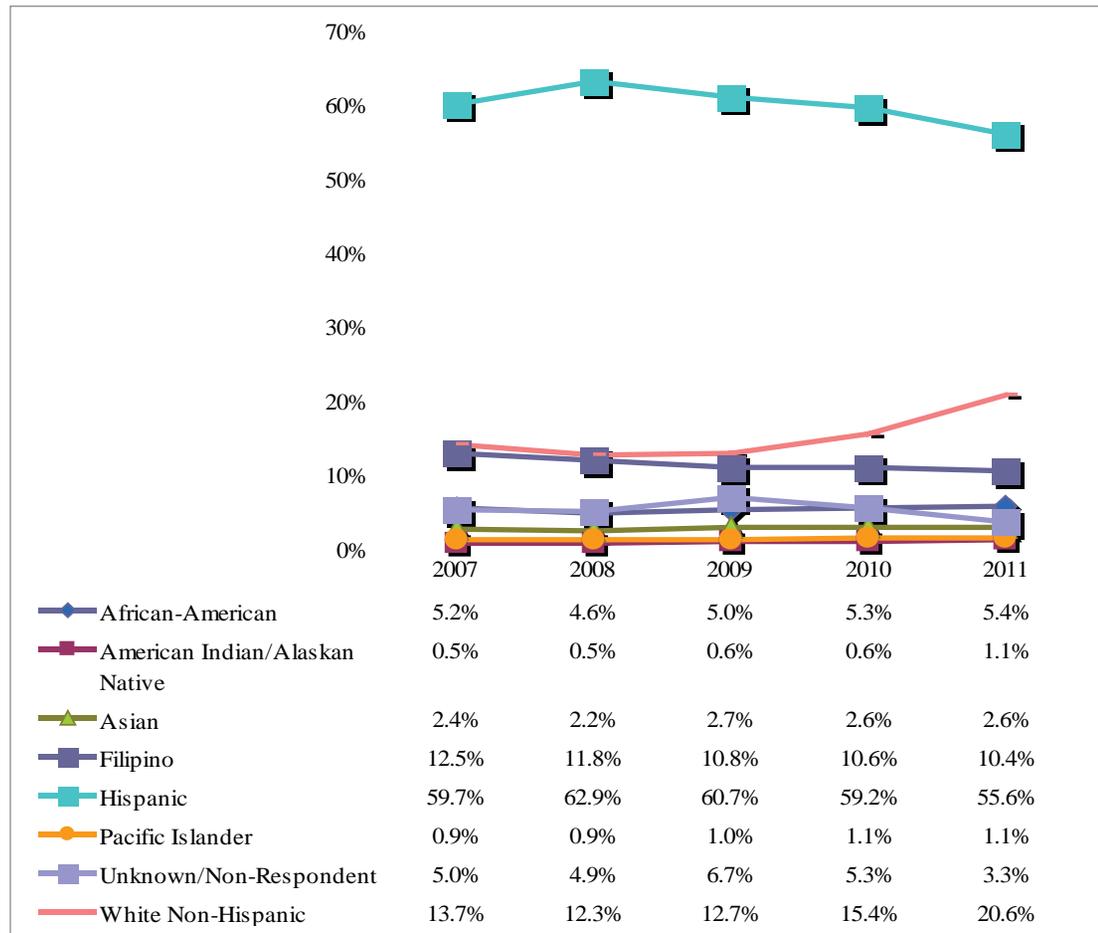
City	2007	2008	2009	2010	2011	Average	Total	% Change 07 to 11
In District								
Chula Vista	8,589	8,907	9,615	8,611	8,860	8,916.4	44,582	3.2%
San Diego	4,249	4,301	4,720	4,148	4,316	4,346.8	21,734	1.6%
San Ysidro	1,376	1,402	1,624	1,454	1,526	1,476.4	7,382	10.9%
National City	1,260	1,345	1,359	1,223	1,271	1,291.6	6,458	0.9%
Imperial Beach	633	620	766	700	685	680.8	3,404	8.2%
Bonita	693	681	719	622	561	655.2	3,276	-19.0%
Spring Valley	388	398	431	377	418	402.4	2,012	7.7%
Coronado	114	142	122	94	92	112.8	564	-19.3%
Lemon Grove	110	99	102	91	88	98.0	490	-20.0%
Dulzura	10	7	5	6	6	6.8	34	-40.0%
<b>Subtotal</b>	<b>17,422</b>	<b>17,902</b>	<b>19,463</b>	<b>17,326</b>	<b>17,823</b>	<b>17,987.2</b>	<b>89,936</b>	<b>2.3%</b>
<b>% of Total</b>	<b>87.7%</b>	<b>88.2%</b>	<b>89.0%</b>	<b>88.8%</b>	<b>87.7%</b>	<b>88.3%</b>		
Out of District	2,447	2,397	2,400	2,180	2,507	2,386.2	113,798	2.5%
% of Total	12.3%	11.8%	11.0%	11.2%	12.3%	11.7%		
<b>Total</b>	<b>19,869</b>	<b>20,299</b>	<b>21,863</b>	<b>19,506</b>	<b>20,330</b>	<b>20,373.4</b>	<b>101,867</b>	<b>2.3%</b>

Source: Southwestern College Research and Planning; analysis Cambridge West Partnership



Over the last five fall terms, the largest ethnic group attending the College has been on average Hispanic (60%). White non-Hispanic (15%) has been on average a much smaller part of the student body. Filipino as a group is the third largest ethnicity (11%) on the campus over this period of time. As illustrated below the trend shows a slight decline (-4%) in the share of Hispanic students within the student body from 2007 to 2011. Conversely, over this period of time the portion of the student population who self-report as White non-Hispanic has risen by 7%. Statewide the Hispanic and White non-Hispanic groups are represented 32% and 33% respectively.

### Fall Term Student Ethnicity



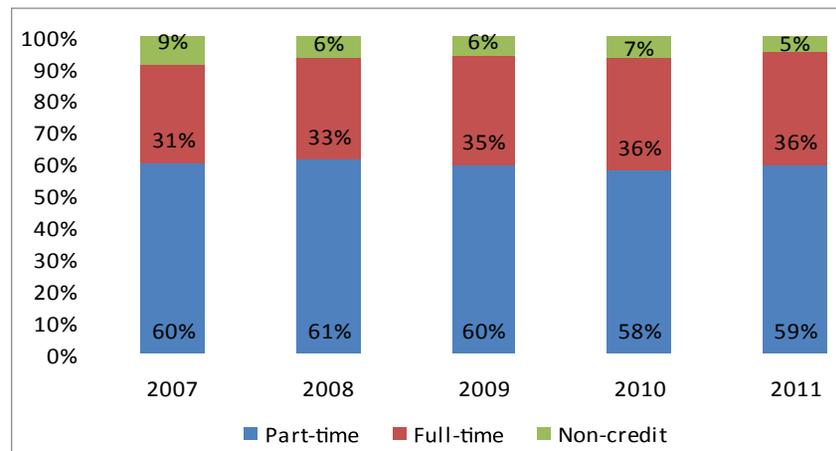
Source: Chancellor's Office Data Mart; analysis by Cambridge West Partnership, LLC

From an access and equity perspective the portion of the student population attending the College in 2010 who self-report as being Hispanic (59%) substantially exceeds the Hispanic portion of the population (45%) in the effective service area with respect to ethnicity. A much lower percentage of White non-Hispanic students were enrolled at the College in 2010 (15%) than are found in the effective service areas as a whole (54%).

As is commonly the case at public community colleges, most SWC students attend college part-time, taking less than 12 credit hours per term. On average in the last five fall terms, 60% of the students at the College completed a unit load of less than 12 units while one-third completed 12 units or more as full-time students. Between 2007 and 2011 the full-time students increased by 5%. On average only 7% of the students were enrolled exclusively in noncredit offerings. Over these five fall terms the noncredit group shrank by 4%, largely due to restrictions on the numbers of noncredit courses offered.

Within the broad categories of full-time vs. part-time, there are three notable concentrations of student unit loads. Among all students, 26% are completing 12 to 14.9 semester units or four to five courses. Another 21% are completing a 3 to 5.9-unit load or commonly one course per term. Approximately 33% of the students are completing a heavier part-time load of 6.0 to 11.9 units or two to four courses.

Fall Term Full-time vs. Part-time Student Status



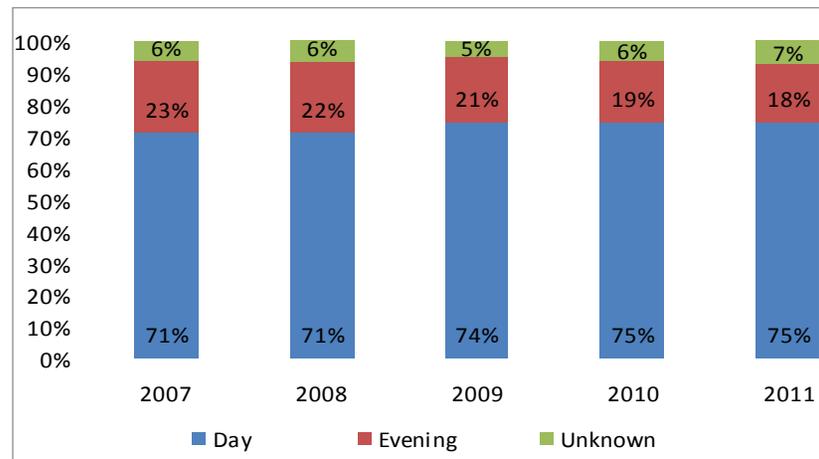
Source: Chancellor's Office Data Mart; analysis by Cambridge West Partnership, LLC

Throughout the state 61% of students attending a California community college are enrolled in the part-time category of less than 12 units, 28% attend full-time with a student load of 12 or more units, and 11% are enrolled exclusively in noncredit offerings. The noncredit enrollment group has shrunk by 2% from 2007 to 2011 while the full-time enrollment group has also increased by 2%. A recent Economic Impact Report prepared for the College estimated that 75% of the students who reported their employment status were employed.<sup>27</sup> That level of employment impacts the numbers of credits in which a student can successfully enroll and complete and may adversely impact their progress toward a goal and college completion.<sup>28</sup>

On average over the fall terms from 2007 to 2011, a very large portion (73%) of the students attends the College during the day, whereas 21% attend only in the evening. Evening classes are defined as those that start at or after 4:30 pm. A small group representing 6% had an unknown attendance pattern, which may mean they were enrolled in a class where the meeting times were to be arranged such as an online distance education course or the students are attending both day and evening classes. From 2007 to 2011 the portion of students attending in the evening has dwindled 5% while the day population has increased 4%.

27 Economic Modeling Specialists, International. *Economic Contribution of Southwestern Community College District*. EMSI, Moscow, ID April 2012.  
 28 Katherine Mangan. "New Tally Counts All Graduates, Even Transfers," *The Chronicle of Higher Education*. November 23, 2012 p. 1.

Fall Term Time of Day Attending



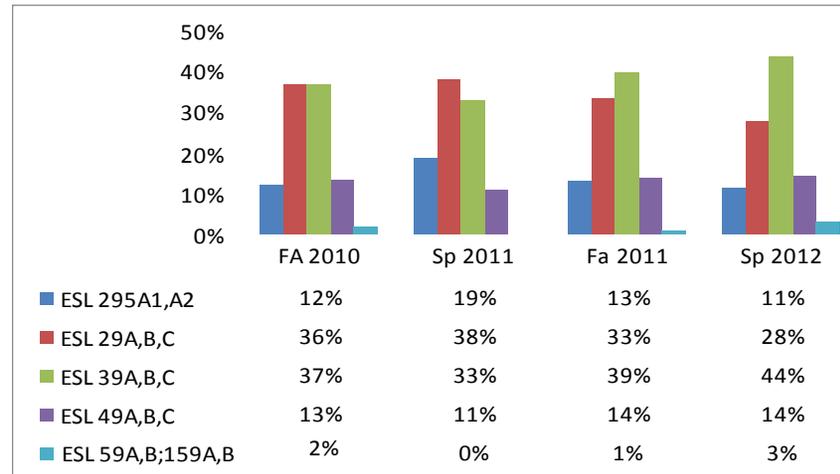
Source: Chancellor's Office Data Mart; analysis by Cambridge West Partnership, LLC



The percentages of students recommended to English 71 translate to 5,178 students over the fall 2009 to spring 2012 terms. The percentages placed into English 114 represent 6,602 students while the percentages placed into English 115 represent 3,494 students. Completion of RDG 158 or the equivalent skill level is required to access ENGL 115. ENGL 114 is a transferable course that provides elective transfer credits. ENGL 115 is the composition course that is both transferable and meets the Associate Degree requirement.

In considering the academic preparation of English language learners, it should be noted that a very small percentage of the students place into a transfer-level ESL course. The core of the ESL program is to prepare these learners for college-level curriculum. ESL 49A, B, C are courses considered to be one level below the transfer level. On average, in recent terms only 13% of the students are recommended to this level. The bulk of the students (86%) completing the ESL placement process are recommended to curriculum that is considered two or three levels below transfer. Comparable placement recommendation information across the state or among community colleges is not available.

### English as a Second Language Placement Recommendations Fall 2010 to Spring 2012



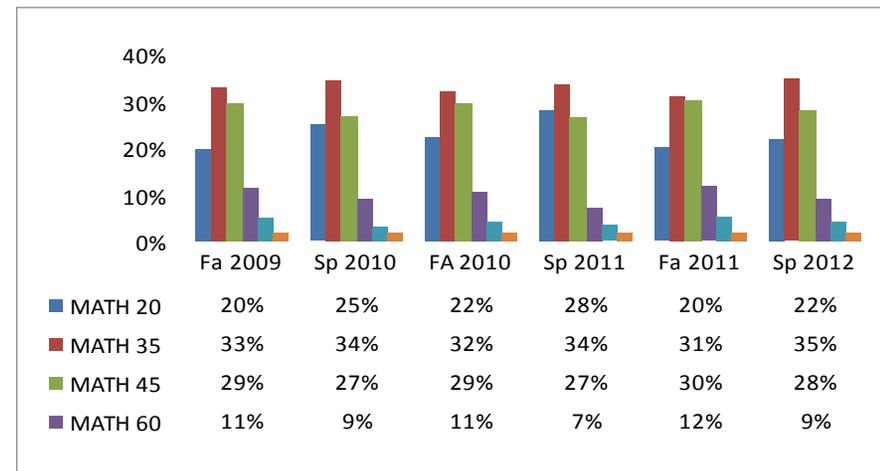
Source: Southwestern College Assessment Office; analysis by Cambridge West Partnership



Some 1,697 students are represented by the percentages of students placed into Reading 52 from fall 2009 to spring 2012. The percentages of recommendations for Reading 54 represent 3,526 students. Reading 56 placements represent 4,315 students. The Reading 158 percentages represent 6,233 students. Completion of RDG 158 or the equivalent skill level is required to access ENGL 115. The largest block of students, 10,886, are found in the percentages of students judged to be reading proficient.

On average between fall 2009 and spring 2012, 98% of the students placed into courses below the transfer level, MATH 101 or higher. Approximately 22% of the students assessed during this time placed into basic mathematics (MATH 20), four levels below transfer mathematics curriculum. On average some 61% of the students place into either pre-Algebra (MATH 35) or Elementary Algebra (MATH 45) instruction. The Intermediate Algebra curriculum is presented in two courses at the College (MATH 60 and 70) but on average only 15% of the students place there. While these two math courses are not a transferable level of math instruction, it is the graduation level of mathematics competence for the Associate of Arts and Science degree. Comparable placement recommendation information across the state or among community colleges is not available.

### Math Placement Recommendations Fall 2009 to Spring 2012

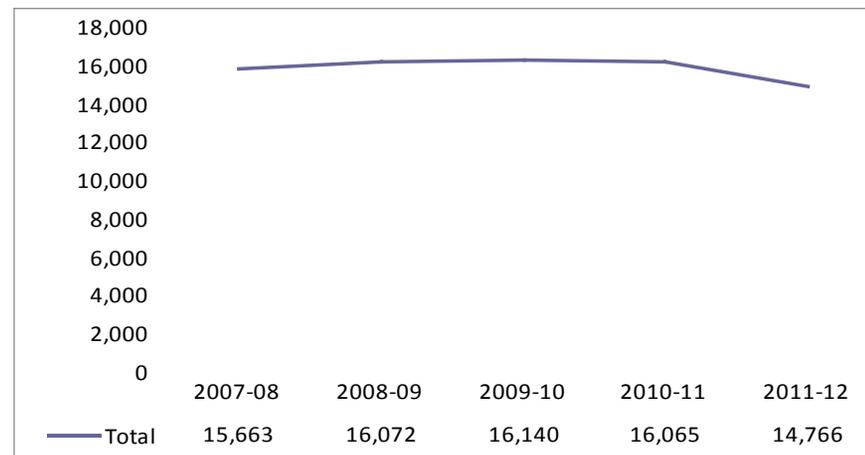


Source: Southwestern College Assessment Office; analysis by Cambridge West Partnership



From 2007-08 to 2011-12 the annual Full-time Equivalent Student (FTES) produced at the College decreased by -6% or 896 units of FTES. Over this period of time the noncredit FTES has dropped from 5% of the total in 2005-06 to only .8% of the total in 2010-11. Conversely, credit FTES has moved from 95% of the total in 2005-06 to 99.2% of the total in 2010-12. These changes are the direct result of funded workload reductions from the state.

### Fiscal Year Funded FTES Trends



Source: Apportionment Reports 2007-08 retrieved September 11, 2012 from <http://extranet.cccco.edu/Divisions/FinanceFacilities/FiscalServicesUnit/Reports/ApportionmentReports.aspx>; analysis by Cambridge West Partnership, LLC



Fall 2011 Key Measures for the Program of Instruction, Chula Vista Campus

Program of Instruction	Net Sections	Seats	Seats/Sec	WSCH	WSCH/Sec	FTES	Lec Hrs %	Lab Hrs %
Arts & Communications	206	6,589	31.99	23,013.4	111.7	767.11	59.0%	41.0%
Health, Exercise Science, Applied Technology	284	8,866	31.22	30,424.2	107.1	1,067.10	43.0%	57.0%
Language & Literature	354	9,678	27.34	37,859.4	107.0	1,262.00	99.0%	1.0%
Mathematics, Science & Engineering	317	10,808	34.09	42,570.8	134.3	1,419.00	73.0%	27.0%
Social Science, Humanities, Business	408	14,245	34.91	41,957.9	102.8	1,398.60	79.0%	21.0%
Noncredit	34	4,852	142.71	2,625.6	77.2	87.52		
<b>Fall 2011 Total</b>	<b>1,603</b>	<b>55,038</b>	<b>34.33</b>	<b>178,451.3</b>	<b>111.3</b>	<b>6,001.33</b>	<b>77.0%</b>	<b>23.0%</b>

Source: Southwestern College Admissions and Records Office; analysis Cambridge West Partnership, LLC

Fall 2011 Key Measures for the Program of Instruction, Otay Mesa HEC

Program of Instruction	Net Sections	Seats	Seats/Sec	WSCH	WSCH/Sec	FTES	Lec Hrs %	Lab Hrs %
Arts & Communications	2	58	29.00	201.1	100.6	6.13	66.7%	33.3%
Health, Exercise Science, Applied Technology	6	115	19.17	508.2	84.7	16.94	28.3%	71.7%
Language & Literature	8	209	26.13	916.5	114.6	30.55	100.0%	0.0%
Mathematics, Science & Engineering	17	496	29.18	2,169.6	127.6	72.32	56.7%	43.3%
Social Science, Humanities, Business	45	1,207	26.82	4,879.2	108.4	162.64	53.9%	46.1%
Health Occupations	76	1,529	20.12	6,355.5	83.6	211.85	23.9%	76.1%
Other	13	273	21.00	680.8	52.4	21.20	100.0%	0.0%
<b>Fall 2011 Total</b>	<b>167</b>	<b>3,887</b>	<b>23.28</b>	<b>15,711.0</b>	<b>94.1</b>	<b>521.63</b>	<b>39.0%</b>	<b>61.0%</b>

Source: Southwestern College Admissions and Records Office; analysis Cambridge West Partnership, LLC

Fall 2011 Key Measures for the Program of Instruction, National City & Crown Cove HEC

Program of Instruction	Net Sections	Seats	Seats/Sec	WSCH	WSCH/Sec	FTES	Lec Hrs %	Lab Hrs %
Arts & Communications	9	275	30.6	1,029.0	114.33	34.30	93.1%	6.9%
Health, Exercise Science, Applied Technology	18	336	18.7	878.1	48.78	29.27	74.1%	25.9%
Language & Literature	18	510	28.3	2,156.1	119.78	71.87	100.0%	0.0%
Mathematics, Science & Engineering	28	883	31.5	3,351.6	119.70	111.72	80.2%	19.8%
Social Science, Humanities, Business	39	1,093	28.0	3,078.7	78.94	102.62	85.1%	14.9%
Health Occupations	65	1,270	19.5	3,333.3	51.28	111.11	36.6%	63.4%
Noncredit	7	210	30.0	90.3	12.90	3.01		
<b>Fall 2011 Total</b>	<b>184</b>	<b>4,577</b>	<b>24.9</b>	<b>13,917.1</b>	<b>75.64</b>	<b>463.90</b>	<b>69.0%</b>	<b>31.0%</b>

Source: Southwestern College Admissions and Records Office; analysis Cambridge West Partnership, LLC

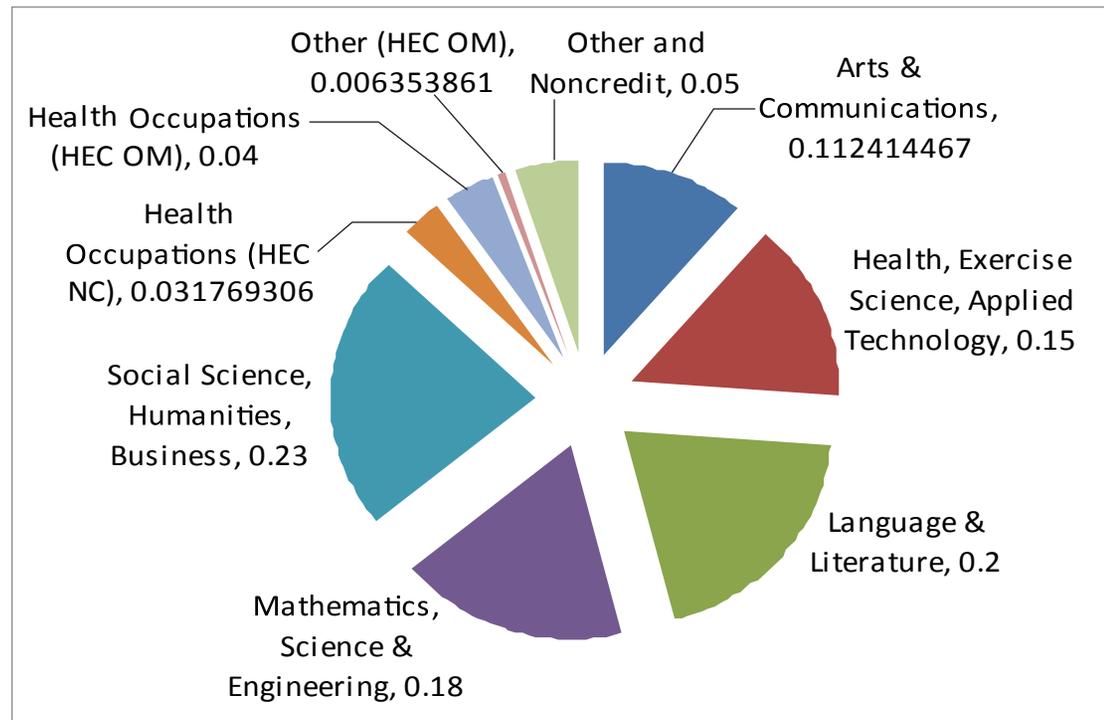
Fall 2011 Key Measures for the Program of Instruction, San Ysidro HEC

Program of Instruction	Net Sections	Seats	Seats/Sec	WSCH	WSCH/Sec	FTES	Lec Hrs %	Lab Hrs %
Arts & Communications	13	330	25.4	1,111.0	85.46	37.03	63.6%	36.4%
Health, Exercise Science, Applied Technology	18	428	23.8	1,225.8	68.10	40.86	52.9%	47.1%
Language & Literature	50	1,247	24.9	4,870.2	97.40	162.34	95.8%	4.2%
Mathematics, Science & Engineering	18	624	34.7	2,392.8	132.93	79.76	100.0%	0.0%
Social Science, Humanities, Business	69	1,708	24.8	4,183.6	60.63	139.50	80.8%	19.2%
<b>Fall 2011 Total</b>	<b>168</b>	<b>4,337</b>	<b>25.8</b>	<b>13,783.4</b>	<b>82.04</b>	<b>459.49</b>	<b>84.0%</b>	<b>16.0%</b>

Source: Southwestern College Admissions and Records Office; analysis Cambridge West Partnership, LLC

The schools of the college were used to determine percentage shares of the sections offered at all locations. In this analysis the Social Science, Humanities & Business School had the greatest share of the curriculum offerings at 23%. The next largest was the School of Language and Literature at 20% followed by the Mathematics, Science & Engineering School at 18%. Collectively these three schools account for 61% of all sections offered.

Fall 2011 Distribution of the Curriculum Offerings (sections)



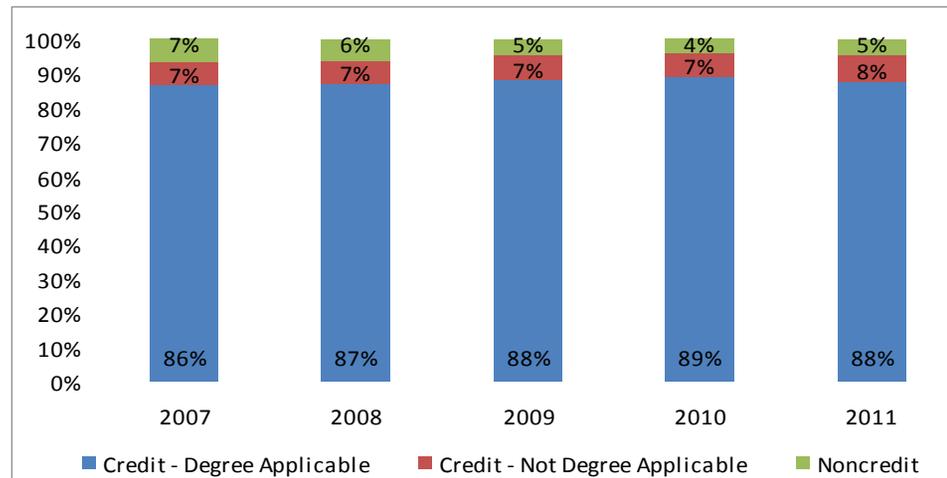
Source: Southwestern College Admissions and Records Office; analysis Cambridge West Partnership, LLC



Both the distribution of curriculum and WSCH graphics reflect the dominant position of the general education courses at the College. As is the case at institutions where a large number of students are intending to transfer to a four-year school, the courses in greatest demand are those from the disciplines represented in the required general education patterns. Those courses commonly come from the traditional liberal arts disciplines of the institution.

The relative portion of total classes scheduled by credit status of the course has remained fairly stable during the last five fall terms. On average the credit degree-applicable offerings represent 83%, credit but not degree-applicable about 11% and noncredit roughly 6% of the total FTES. From 2007 to 2011 degree-applicable classes have increased by 4% of total offerings, non degree-applicable and noncredit offerings have decreased 2% each.

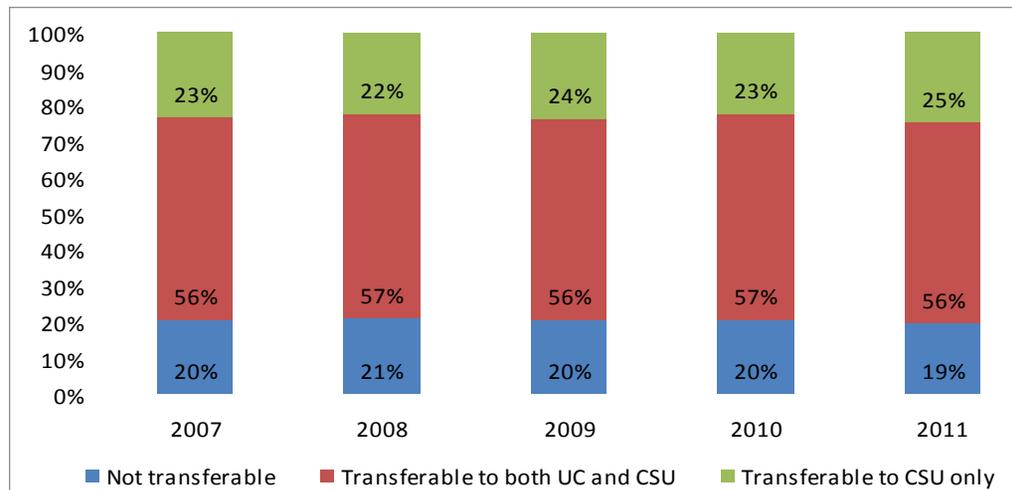
Fall Class Offerings by Credit Status



Source: MIS Referential files; analysis by Cambridge West Partnership, LLC

The relative portion of total classes scheduled by transfer status of the course has remained fairly stable during the last five fall terms. On average the course offerings transferable to both the University of California (UC) and the California State University (CSU) represent 56%, those transferable only to CSU have been about 23% and the nontransferable offerings have been roughly 20% of all the sections scheduled. From 2007 to 2011 nontransferable classes have decreased by 1% of total offerings while the courses transferable only to CSU have increased 2%.

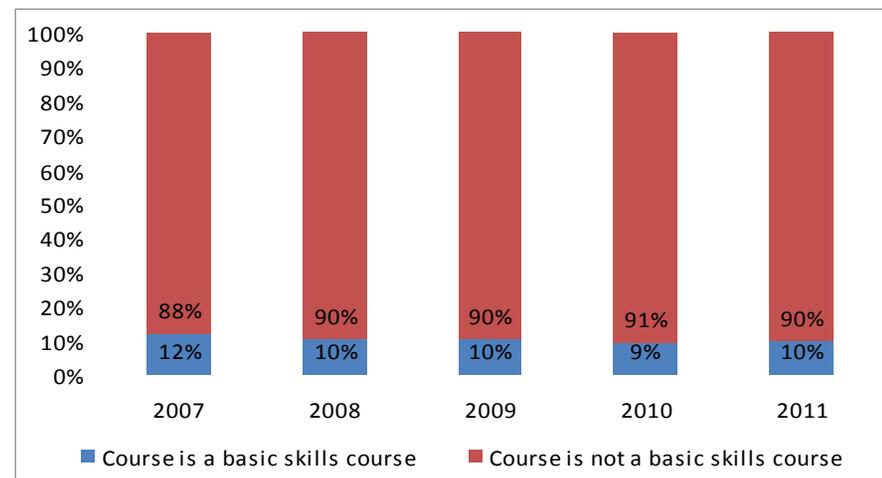
### Fall Class Offerings by Transfer Status



Source: MIS Referential files; analysis by Cambridge West Partnership, LLC

The relative portion of total classes scheduled by basic skills status of the course has remained fairly stable during the last five fall terms. On average the non-basic skills offerings represent 90% of the offerings while basic skills classes have been roughly 10% of the total classes scheduled. From 2007 to 2011 non-basic skills classes have increased by 2% and the basic skills offerings have decreased 2%.

### Fall Class Offerings by Basic Skills Status

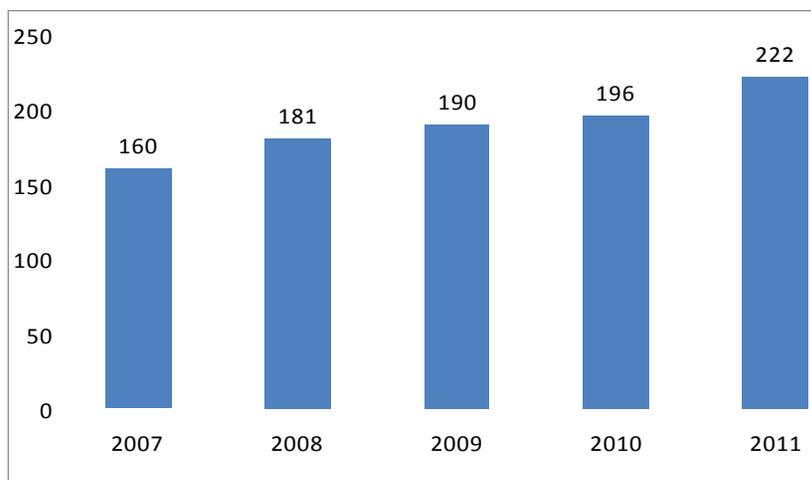


Source: MIS Referential files; analysis by Cambridge West Partnership, LLC



Most classes offered by the College are presented as traditional face-to-face offerings as compared to distance education classes. However, the numbers of classes presented by distance education has been growing (39% increase or 62 classes). Over the past five fall terms, the numbers of distance education classes has average 190 classes per term.

### Fall Classes Offered by Distance Education Mode of Instruction



Source: MIS Referential Files; analysis by Cambridge West Partnership, LLC

As noted previously, a recent article by TecEDge indicated that the College is the fourth largest provider of distance education.<sup>30</sup> However, the College has temporarily stopped creating new distance education offerings while a review of services and technology provided to support faculty and the enrolled students is conducted. One of the strategic priorities created by the College in 2011 is student access with one of the objectives under that priority being “Increase student access through the use of technology (e.g., interactive website, online support services, etc.)”. Another priority is student success, with one of the objectives being “Promote student success by providing parallel student and instructional support services for online students as are available for students who attend classes on campus”.

### Non-Instructional College Resources to Support the Educational Mission

#### **Support Service Offices**

The College provides a diverse set of programs to support student learning which do not necessarily generate FTES. These programs make an important contribution to the college experience. They focus support on students who are at greatest risk of failure in higher education. These include students who are the first generation in the family to attend college, have minority backgrounds, are from low-income families, or who have physical, mental, or emotional disabilities.

<sup>30</sup> TecEDge, Update: Distance Education Courses At California Community Colleges, retrieved November 9, 2011 from <http://ccctechedge.org/news/miscellaneous/246-update-distance-education-courses-at-california-community-colleges>





Southwestern College Online Student Support Services (continued)

Service Area & Service	Online Interactively	Notes
Schedule appointments Testing schedule	X	
<i>Career Center</i> Activities calendar California Career Café Career/Major exploration links Choices Planner	X X X	A virtual career center Via Bridges.com Career/Major interest Assessment tool
<i>Center for International Studies</i> Basic information and forms available		
<i>Counseling</i> e-Counselor available Online orientation	X	For basic information and questions only
<i>Center for Technical Education and College Success (CTECS)</i> Basic information and forms available		
<i>Disability Support Services</i> Basic information and forms available		
<i>Extended Opportunity Programs &amp; Services (EOPS)</i> Point & click contact services e-EOPS counseling available	X X	Students can contact the director from the website. For extenuating circumstances only. Fall and Spring only.
Enroll online	X	
<i>Evaluations</i> Basic information and forms available Online receipt & transfer of transcripts Degree audit/E-advising (pilot spring 2013)	X Coming soon	

Source: Student Affairs Online Services Inventory, July 2012



Southwestern College Online Student Support Services (continued)

Service Area & Service	Online Interactively	Notes
<i>Parking</i>	Coming soon	
<i>Online parking permits</i>		
<i>Student Activities</i>		
<i>Basic information and forms available</i>		
<i>Student Accounts (Cashiering)</i>	X	
<i>Student Bookstore</i>		
<i>Order or rent texts online</i>	X	
<i>Student Employment Services</i>		
<i>California Career Café</i>	X	A virtual career center
<i>Job fair information</i>		
<i>Job/internship/volunteer listings</i>		
<i>Resume and interview prep assistance</i>		
<i>Twitter</i>	X	
<i>Transfer Center</i>		
<i>External transfer links available</i>	X	Via ASSIST.org
<i>Workshop/Activities calendar</i>		
<i>Workshop registration</i>	X	
<i>Workshop handouts/information</i>		
<i>Online steps to transfer workshops</i>		
<i>Email list serve registration</i>	X	
<i>Transfer assistance links</i>		
<i>Veterans' Services</i>		
<i>Term calculator available</i>	X	
<i>Women's Resource Center</i>		
<i>Soroptimist International Women's</i>		
<i>Opportunity Award online application</i>	X	

Services in all of these areas have been reduced by the current shortfall of revenue. The areas are being supported by a combination of categorical funding, general funds and funds from the Associated Student Body and other ancillary funds.

It is important to the College that students succeed, persistently enroll in one term after the next, and achieve their educational goals. The above listed services represent a commitment to support student efforts. However, recent budgetary challenges threaten the capacity to continue the services at the same level, and to meet larger future demands for assistance. The College will need to be creative in finding ways to sustain or more efficiently provide some of these services. If not, SWC may be faced with difficult choices regarding the extent of support to selected areas, if policymakers at the state level do not pre-empt the campus leadership in that regard. The College program review process may provide some assistance in this decision making process.

### **Library and Learning Resources**

A new Library/Learning Resources Center opened in 2003. The three-story facility is located at the main north entrance to the campus. The new building incorporates a variety of services including the Library, Multimedia center, Interdisciplinary Tutoring Center/computer lab, Staff Development facilities, the Teaching and Learning Center (TLC), the Telemedia Center plus staff offices and conference and meeting rooms. Students are offered a variety of study spaces for group work or media viewing, wireless Internet and both print and non-print media.

The building in 2003 allowed changes in the information environment that supported student learning and allowed the library staff to develop strategies to address twenty-first century student demands and needs. The book, periodical, and media collection support the academic program of instruction at the College. Books

may be checked out for four weeks while periodicals are available for use in the Library. A collection of reserve books is available for one- or two-hour use in the Library only. Most of them are instructors' personal copies of textbooks. Also the Library provides an online e-book collection and full-text periodical databases for students to use. Students can also access DVDs, CDs, CD-ROMs, audiocassettes; sound filmstrips and sound slide sets. These media are for in-Library use only and private viewing carrels are also provided. The media production unit assists faculty and staff with services such as the preparation of posters, flyers, personal websites and digital media.

Academic support functions, such as the Interdisciplinary Tutoring services, are located on the third floor. Students have access to more than 100 computer stations with standard computer tools for accomplishing class work and research, including periodical and information databases, the Internet, Microsoft Office suite (Word, Excel, Access and Power Point), the Library catalog, e-books and other software. Photocopiers are available on the second and third floors, printing from computers is available as well.

The Telemedia facility includes a studio, control room, audio booth, lab for editing and post-production, as well as several production software suites perfect for group productions.

The Staff Development Program, located in the LRC/Library or Bldg. 620, is a place where professional development is coordinated and professional development activities are held. Staff Development includes a library of resources, a computer lab with both Mac and PC computers open to all staff, a training lab for software training, three training rooms (L238 North, L238 South, and L246), and a Library Orientation room (L244) that has sometimes served as a large capacity training room. Staff Development provides professional development for all staff

through workshops, activities, and one-on-one training. The Staff Development Coordinator, the Training Services Coordinator, and the Staff Development Program Assistant coordinate the Staff Development Program.

The library faculty collaborates with classroom faculty. Librarians consult discipline faculty regarding purchases for the collection and give library orientations geared to specific assignments. However, some of the resource reductions pose a significant challenge to the library staff to maintain their electronic equipment and resources. The library staff has been dwindling due to retirements so that the staffing level threatens the unit's ability to effectively serve the faculty and students.

**College-wide Staffing Patterns**

Since 2007, the overall workforce at the College has declined. The full-time equivalent (FTE) number of classified administrators declined the most, 19.4%, over this period of five years. In addition to these changes, a number of positions have remained vacant as part of a strategy to conserve resources. The FTE of tenured faculty has declined by 9.8% while the FTE of educational administrators has declined by 4.6%.

**Employee Groups by Full-time Equivalency**

Employee Group	2007	2008	2009	2010	2011
Educational Administrators	26.2	23.1	24.0	23.3	25.0
Tenured/Tenure Track Faculty	202.5	201.8	208.1	199.4	182.7
Academic Temporary	252.5	244.6	260.0	269.9	282.7
Classified Administrators	36.6	34.2	33.5	34.8	29.5
Classified Support	339.5	342.7	327.5	349.9	331.1
<b>Total</b>	<b>857.3</b>	<b>846.4</b>	<b>853.1</b>	<b>877.3</b>	<b>851.0</b>

Source: Chancellor's Office Data Mart 2.0; analysis by Cambridge West Partnership, LLC



Given that a significant percentage of employees in key classifications are of retirement age, this is the time to consider priorities to guide the decisions about replacement personnel. In the current and near-term environment the financial resources available to the College are insufficient to sustain all areas of the institution at optimal staffing levels.

**Budget to Support Instruction and Student Support Services**

The budget development process at the College historically has been completed as a “rollover” process. The managers of departments were provided with budget development sheets that displayed their discretionary accounts, and they were allowed to move their budget from one category to another to better serve their needs. In 2012-13, with the State budget information the College received, it was decided that some contingency plans should be create in case there were mid-year reductions.

The following risks were acknowledged in developing the 2012-13 budget. These points illustrate the revenue stresses the College has faced in recent years.<sup>31</sup>

- Deficit spending on the order of \$2.2 million will call for significant reductions in expenditures
- The current year deficit is financed with one-time solutions (5% salary reduction, \$1 million Other Post-Employment Benefits (OPEB), reserve reductions, etc.)
- If Proposition 30 fails, a mid-year cut of approximately \$4.8 million will have to be addressed. There is only \$1.1 million available to address additional current year cuts leaving an additional \$3.7 million in reductions to be identified.
- No apportionment deficit factor was built into the budget.

<sup>31</sup> SWC FY 2012-13 Proposed Adopted Budget. Retrieved October 4, 2012 from <http://www.swccd.edu/3rdLevel/index.asp?L2=612>

A deficit factor will result from a State revenue shortfall mid-year.

The following expenditure reductions and strategies were used to develop the 2012-13 budget.

- A 5% one-time salary reduction for all employees.
- The reserve was reduced from 7% to 5% by a \$2.2 million drawdown.
- Step and column increases of \$647,000 with benefits.
- \$1 million reimbursement from the OPEB trust.
- SERP payment of \$598,000 (second of five years of payments).
- Additional employee health insurance of \$475,000 above the bargained amount of \$5,200 per employee.
- Estimated workload reduction of 809 FTES. However, the fall 2012 and spring 2013 schedules were planned to absorb a reduction of 1,032 FTES in anticipation that Proposition 30 would not pass.
- Better management of the part-time overload designated for instructional and non-instructional personnel expenses guaranteed that \$11.5 million is allocated for those purposes.

The College departments operated extremely efficiently for the 2011-12 fiscal year. If that behavior can be continued in 2012-13, it will hopefully allow the campus to achieve necessary savings, while it considers long-term solutions to its ongoing budget deficits.

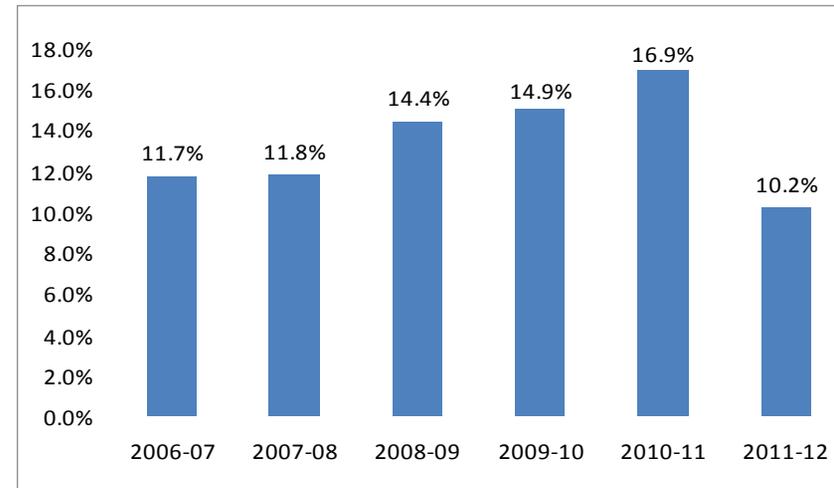
In recent years budget development has been extremely difficult. With many unknowns at the State level, the College has created alternative scenarios taking into consideration various possible

options. Vacancies created through attrition from resignations and retirements are being reviewed on a case-by-case basis with many of the positions being frozen to help the campus meet its revenue reduction targets. Currently, under an agreement with the California School Employees Association (CSEA), vacated classified positions will not be considered for replacement until the beginning of the next fiscal year.

The Budget Committee and Shared Consultation Council (SCC) play vital roles in the budgeting process. The budget development process includes that, on an annual basis, both committees are presented with a summary of expenditures from the previous year and a breakdown of those expenditures by major category (salaries, utilities, supplies, etc.). In that same report, the current fiscal year budget is broken down in the same way. This allows the constituents that serve on the committee to understand where the expenditures were made in the previous year, as well as where the expenditures are anticipated to be in the coming year. With the budget challenges that the College is facing, the committee gets regular updates, as new information is made available from the State to ensure that everybody has an overall understanding of the financial state of the College. The task of the Budget Committee is to provide recommendations to the SCC for budgetary decision making and funding of the priorities established by the SCC to the extent funds are available.

The College has been facing some very serious budget challenges in recent years and will continue to be facing revenue challenges in the next 2-3 years, possibly longer, given the economic circumstances of the State. The College is doing its very best to prepare for these future unknowns, but it will be extremely challenging given the reductions that have already been taken, both in financial resources and human resources.

### Five-Year Ending Balance as Percent of Expenditures



Source: Fiscal Data Abstracts 2007-2011, Table IX; SWC Annual Financial and Budget Report for 2011-12; analysis by Cambridge West Partnership, LLC

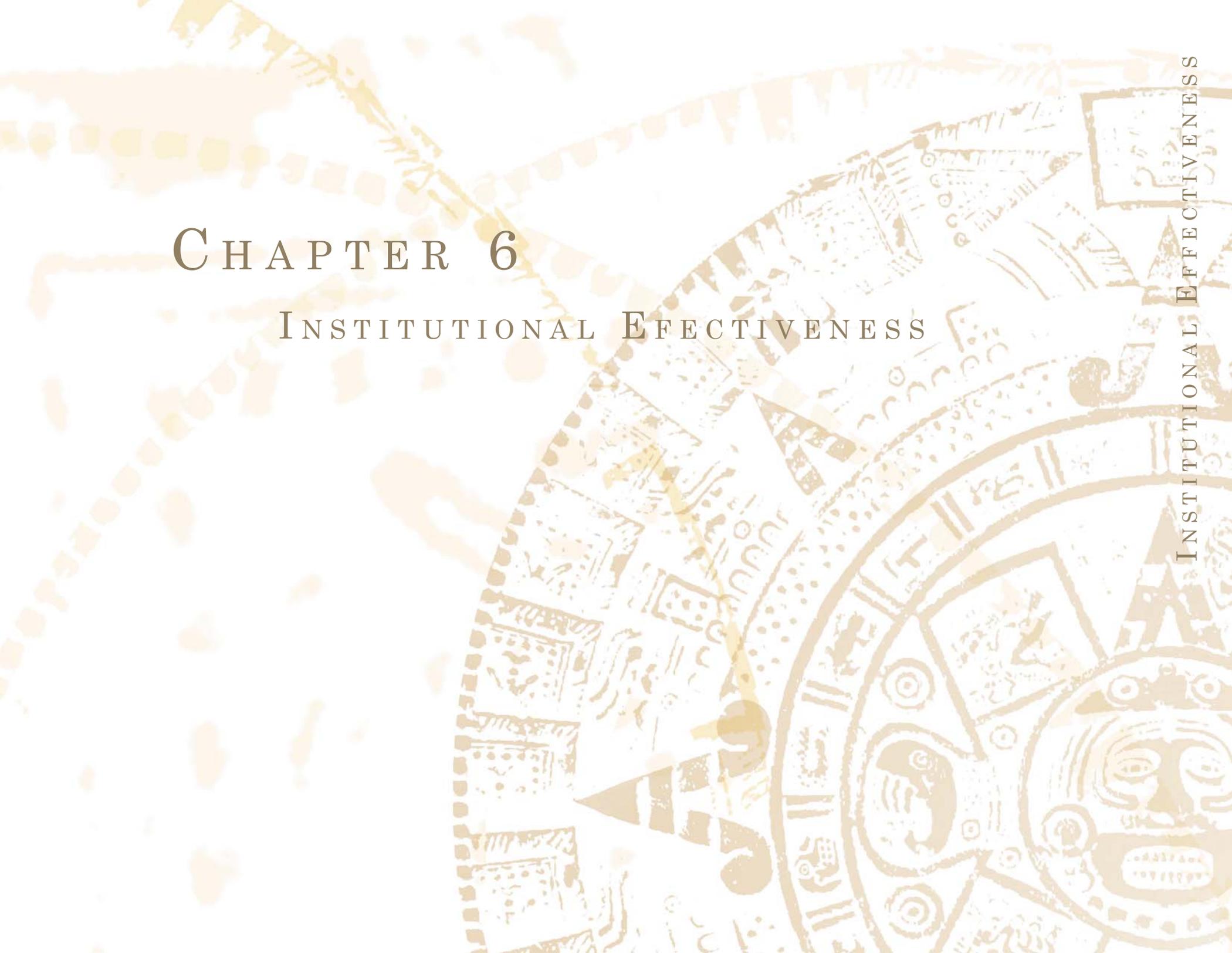




The plan sets an ambitious pace for activity to support teaching and learning over the next several years. Within one to three years the College network, the enterprise-wide wireless system, and the district data center need to be modernized. Over the next three to seven years a fiber optic infrastructure should be developed, the telecommunications room modernized, and a data center potentially relocated.

# CHAPTER 6

## INSTITUTIONAL EFFECTIVENESS



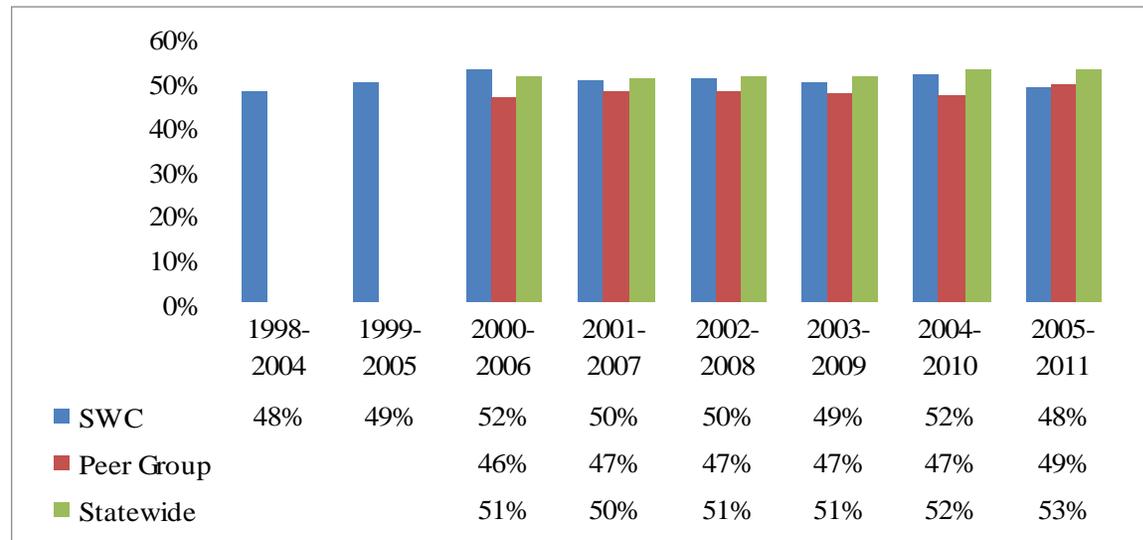




The annual ARCC reports<sup>32</sup> show that in recent years the SWC Student Progress and Achievement (SPAR outcome) has been on par with the statewide rate and the performance rate reported for a peer-group of California community colleges. For the cohort of students covering 2005 to 2011 the College rate slipped below that of the statewide rate by 5%.

<sup>32</sup> A copy of the current and past reports, which contain a detailed methodology section, can be extracted from <http://www.cccco.edu/ChancellorsOffice/Divisions/TechResearchInfo/ResearchandPlanning/ARCC>

### Student Progress and Achievement Rate



Source: Source: Southwestern College ARCC Reports 2007 to 2012; analysis by Cambridge West Partnership, LLC



The College has explored the comparative success of students in earning a degree or certificate based upon their self-reported race and ethnicity in a report updated June 2009.<sup>33</sup> Several groups showed a lower likelihood to earn a certificate, but the same groups earned a degree at rates equivalent to the majority.

The College has set a goal to increase the number of degrees and certificates awarded from an average (2007-08 to 2011-12) of 1,680 to 3,000 over the next two years. A more detailed view of the past awards is provided below.

After 2005-06, the College began to award Associate Degrees in specific discipline areas; therefore, the decline in Interdisciplinary Studies awards is a little misleading. Nevertheless, the three discipline areas with the most awards are Interdisciplinary Studies (32%), Public and Protective Services (13%), and Health (12%). Until 2009-10, the term Interdisciplinary Studies was used to denote the transfer preparation Associate Degree program offered by the college.

33 SWC Student Equity Plan Status and Data Update. June 2009

Details of Most Often Awarded Degrees and Certificates

Program Type - TOP2 Code	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	Total	%	Average	% Change
Interdisciplinary Studies-49	572	579	483	415	312	2,361	32%	472.2	-45.5%
Public and Protective Services-21	149	181	234	188	242	994	13%	198.8	62.4%
Health-12	148	152	161	212	199	872	12%	174.4	34.5%
Business and Management-05	222	184	135	140	130	811	11%	162.2	-41.4%
Family and Consumer Sciences-13	142	107	104	29	56	438	6%	87.6	-60.6%
Engineering and Industrial Technologies-09	57	82	97	78	75	389	5%	77.8	31.6%
Psychology-20	37	48	50	36	70	241	3%	48.2	89.2%
Social Sciences-22	33	43	45	34	77	232	3%	46.4	133.3%
Media and Communications-06	42	30	32	34	44	182	2%	36.4	4.8%
Fine and Applied Arts-10	34	33	38	33	37	175	2%	35.0	8.8%
Law-14	38	25	38	20	24	145	2%	29.0	-36.8%
Information Technology-07	13	39	27	22	23	124	2%	24.8	76.9%
Humanities (Letters)-15	13	21	19	29	22	104	1%	20.8	69.2%

Source: MIS Referential Files; analysis by Cambridge West Partnership, LLC



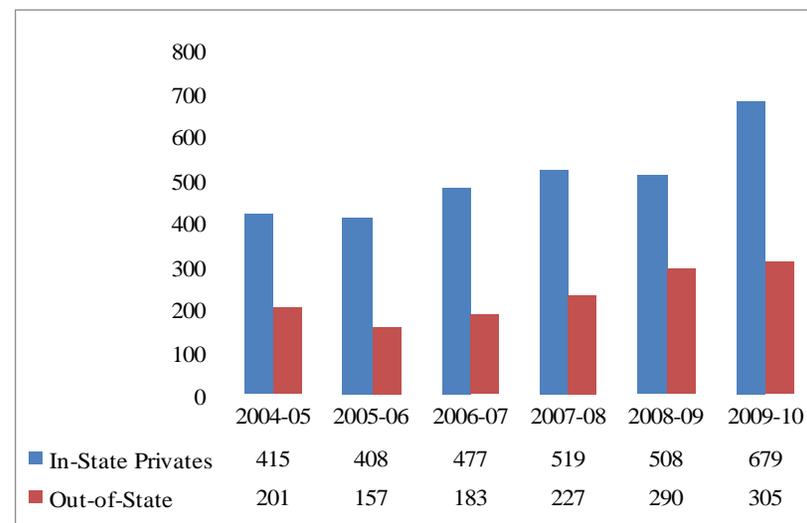
As an alternative, transfer-bound students from the College have been seeking entrance to in-state private institutions and out-of-state schools. The number of students from the College who have successfully transferred to in-state private or out-of-state institutions has been steadily climbing over the academic years for which data is available (2009-10 is the most recent year). On average, from 2004-05 to 2009-10, the College annually has sent 501 students to private institutions in the state and 227 students to out-of-state schools. From 2004-05 to 2009-10, there has been a 64% increase in the numbers of students accepted at in-state private schools and a 52% increase in the numbers accepted at out-of-state institutions.

Among the in-state private schools, the most popular are: (1) University of Phoenix (annual average of 250 students); (2) National University (annual average of 139 students); (3) ITT Technical Institute (annual average of 29 students); (4) New School of Architecture and Design (annual average of 26 students); and (5) University of San Diego (annual average of 20 students). Over this period of time, the leading out-of-state institutions are (1) Ashford University, a large provider of distance education located in Iowa, (annual average of 39 students); (2) University of Maryland-University College (annual average of 14 students); and (3) Excelsior College, a New York institution providing distance education (annual average of 11 students). Ashford is owned by the Bridgeport Education Inc., an organization based in San Diego.

The analysis at right considers the transfer phenomenon from the perspective of a transition year in which the community college student effects a transition to a four-year institution by enrolling in the senior institution. The analysis does not consider the length of time it took the community college student to complete the preparation for transfer, then to make the transfer to the four-

year school. If a cohort approach were taken to the transfer phenomenon, some additional insights come to light. A cohort methodology has been developed by the Chancellor’s Office. The method tracks cohorts of first-time community college students for six years to determine if they show “behavioral intent to transfer”. A student becomes eligible to potentially enter a transfer cohort by enrolling for the first time at any California Community College (CCC). Students may be concurrently enrolled in high school (aka “special admits”), may be high school dropouts, or may be high school graduates at the time of their initial enrollment. Students are assigned a cohort year according to the academic year in which they first enroll at a CCC. Transfer cohort students are attributed uniquely to one “home” community college based on where they earned most of their units.

### Full-Year Transfers to Out-of-State (OOS) and In-State Private (ISP) Schools



Source: California Community College Chancellor’s Office, Research, Analysis and Accountability Unit Reports; analysis by Cambridge West Partnership, LLC



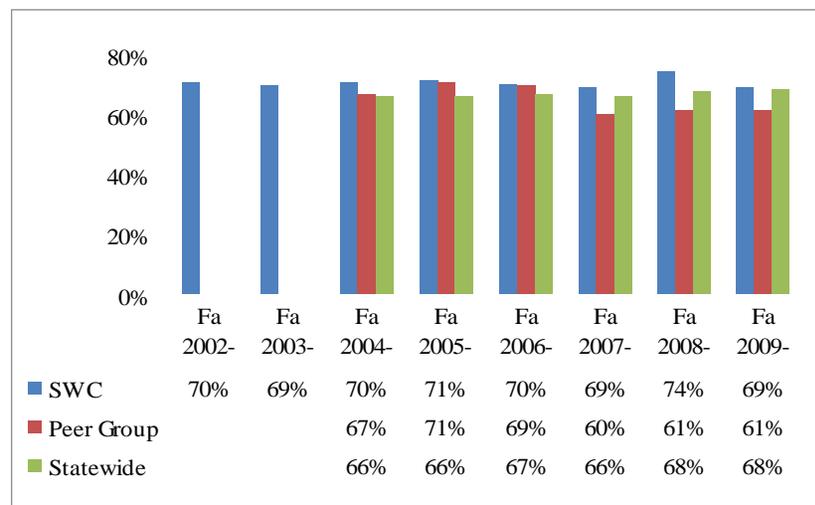


In this analysis, the denominator of the ratio is the same as the student progress and achievement indicator. The students who successfully complete 30 credit hours are the only students included in the numerator.

Another outcome found in the ARCC framework is the percentage of students who begin as a cohort in one fall term and remain enrolled the following fall semester. Over the period of time from fall 2004 to 2010 the College has done better than its peer group and the statewide experience.

In future years the state-sponsored accountability framework for the California community colleges will continue to focus on the fall to fall persistence rate, but will be adding an extended persistence view that includes a third primary semester for a total of 18 months. The College has not yet set a key performance indicator

### Fall Term Persistence

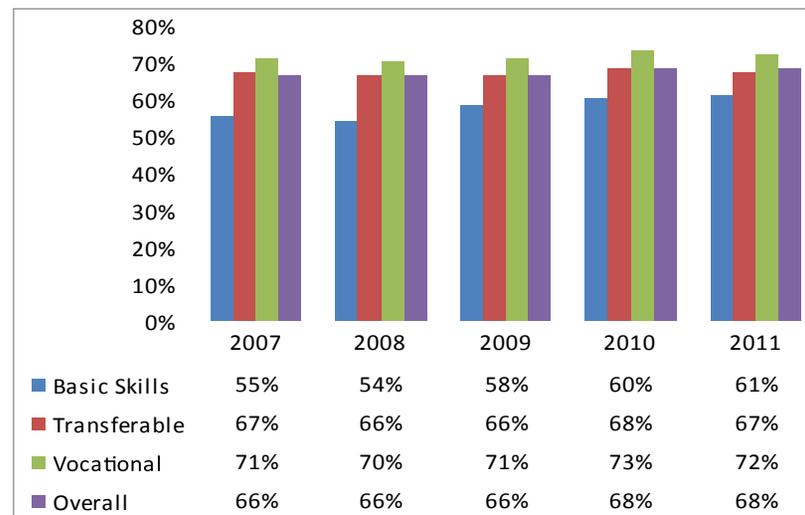


Source: Southwestern College ARCC Reports 2007 to 2012; analysis by Cambridge West Partnership, LLC

goal for basic skills successful course completion rate.

A common measure of organizational performance is the success rate of students enrolled in the credit instructional program. The rate is calculated by comparing the number of students who earned a grade of C or better to the number of all students who were still enrolled after the normal add and drop period ended. Students attending the College have had steady increases in the amount of success they have experienced in their courses with the exception of transferable curriculum.

### Fall Term Student Success Rates Overall and by Type of Course



Source: Chancellor's Office Data Mart; analysis by Cambridge West Partnership, LLC



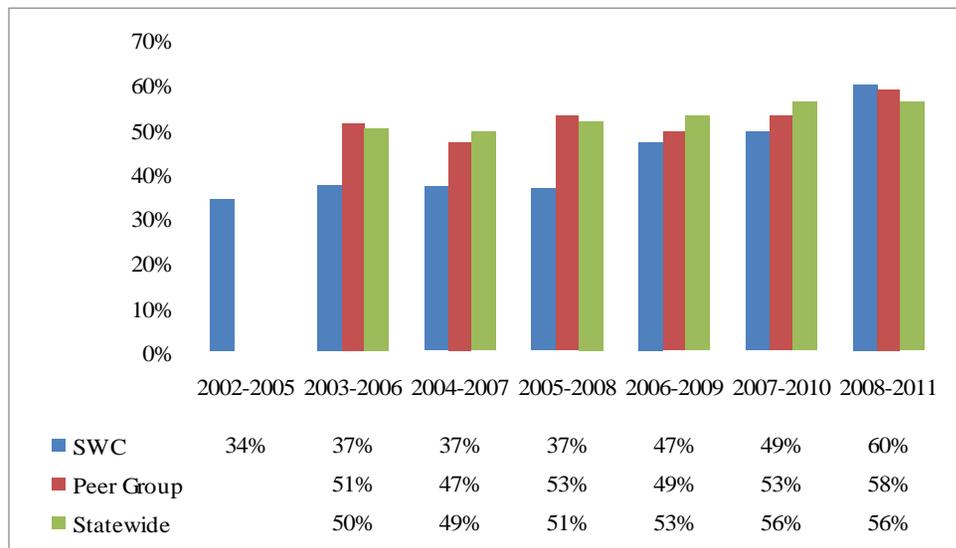


The College has not yet set a key performance indicator goal for vocational course successful course completion rate.

As expressed in the ARCC framework on an annualized basis, students enrolled in basic skills curriculum at SWC were less successful compared to students enrolled at colleges in the peer group. They were also less successful on the statewide performance Basic Skills Credit Course Success Rate indicator.

In this analysis, the denominator of the ratio consists of students enrolled in one or more credit non-degree applicable basic skills courses during 2005-06 through 2010-11. Successful students, defined as those who earned a final course grade of A, B, C or pass, are also placed into the numerator count. This performance indicator is important because many incoming students are placed into basic skills curriculum in English composition (34%), reading (36%), and math (98%).

### Annual Credit Basic Skills Successful Course Completion Rate



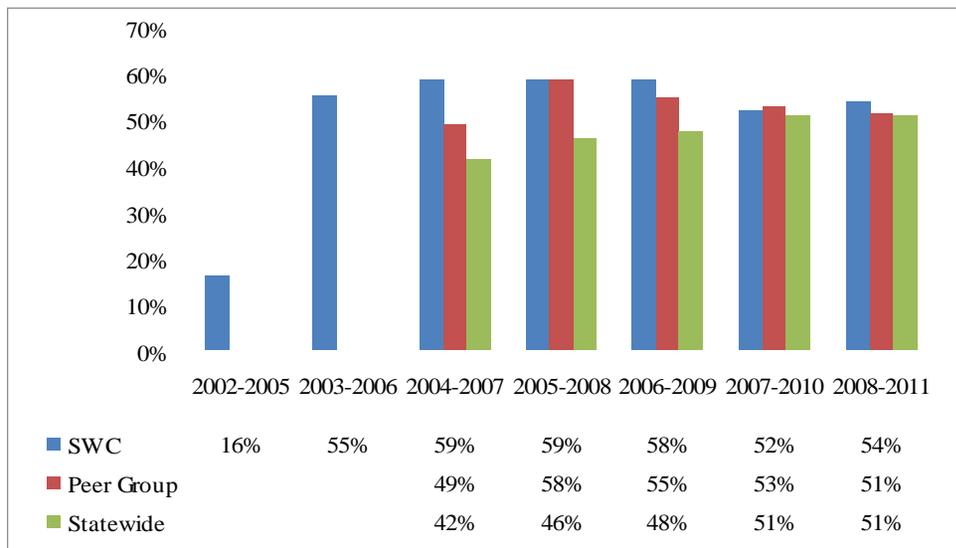
Source: Southwestern College ARCC Reports 2007 to 2011; analysis by Cambridge West Partnership, LLC



The College has embraced a key performance indicator goal in the area of credit basic skills improvement rate to advance as many students as possible from two-levels below college-level instruction in English, reading and mathematics to college-level instruction.

As expressed in the ARCC framework, in the 2008-2011 cohort the College had slightly higher than statewide performance levels on the ESL Improvement Rate (54%) indicator. In this analysis the denominator of the ratio consists of students enrolled in one or more credit ESL courses below the transfer level during 2002-03 to through to 2008-09. Successful students were defined as those who earned a final course grade of A, B, C or pass. They were followed respectively for three academic years (e.g. 2006-07 to 2008-09), including the term of qualifying enrollment. These students were placed into the numerator count if they successfully completed a higher-level course in the same discipline.

### English as a Second Language Credit Course Improvement Rate



Source: Southwestern College ARCC Reports 2007 to 2011; analysis by Cambridge West Partnership, LLC



**Basic Skills Initiative**

The Board of Governors earmarked funds for a system-wide basic skills instructional improvement effort. Dollars were allocated to each college based on the FTES generated from courses marked as basic skills.

To address the needs of basic skills students the College has funded a variety of projects using targeted basic skills funding. The Basic Skills Initiative Steering Committee (BSI-SC) began work at the end of Fall 2007 with the goal of moving basic skills instruction to the forefront of SWC institutional priorities. The BSI-SC promoted strategies that were highly coordinated and integrated the areas of instruction, student services, and supplementary services to further the academic success of this student population.

The group completed the required self-assessment to establish a baseline measure and document how the current College practices fit with and reflect the findings from the literature regarding effective practices for basic skills students.<sup>37</sup> A Blackboard BSI-SC site was created to be a central place for input and dissemination of relevant information. At that time, funds were designated for ongoing projects, with subsequent approval by the Superintendent/President. Faculty was surveyed to identify strategies they employed to address academic issues related to basic skills students in their classes. A Five-Year Plan was crafted in 2007-08 to guide the work in this area.

The funded institutional responses followed the suggestions in the Basic Skills as a Foundation for Success in the California Community Colleges. That is to say, steps have been taken with regard to organizational and administrative practices. Various program components have been tried, professional development

has been afforded to faculty and staff, and several instructional practices have been altered. Periodic evaluations and reports to the Chancellor’s Office on how funds have been allocated, mark the trail of efforts over the years.<sup>38</sup> Early in the efforts, the College made a commitment to hire five full-time faculty members exclusively to teach basic skills curriculum. Unfortunately, the amount of dedicated funding for basic skills interventions has dwindled since the initial years.

Several interventions proved to be helpful in promoting student success and retention. Preparation, Achievement, Interdependence, Responsibility (PAIR) learning communities matched a discipline course with a learning skills course. Initially, they were taught with a team of instructors but more recently taught by the same instructor. Supplemental instruction (power study program) was added to the PAIR curriculum package. The learning community strategy also included counseling, support, tutorial services through a Power Study Program (supplemental instruction) and other program elements. Evaluations have demonstrated the very positive impacts of that intervention for students who participated compared to those who used the services minimally or not at all.

The ESL department used this approach as it worked through a redesign of the curriculum sequence to focus on Learning English for Academic Purposes (LEAP). Reflection on the results of some efforts has encouraged the College leadership to believe that a stronger link between the ESL program and student services at the earliest stage possible would be helpful to those students. Were it not for the basic skills initiative funding this curriculum redesign likely would not have been possible.

As is the case with most institutions of higher learning in the United States, most basic skills students are challenged to master

<sup>37</sup> Research and Planning Group of the California Community Colleges. *Basic Skills as a Foundation for Success in the California Community Colleges*. July 2007.

<sup>38</sup> SWC Basic Skills Initiative Annual Reports, 2008-09 through 2011-12

the fundamentals of mathematics. A migration study of students in the basic skills math sequence has documented the difficulty in getting students through the early math sequence and into Math 60, Intermediate Algebra, needed for graduation with the Associate Degree. Evaluation studies have indicated that the PAIR course strategy does help with the persistence problem, although only a few sections can be offered using that strategy. Over the years the mathematics faculty have approached the challenges of learning mathematics by creating a departmental final exam and studying those assessment results for clues to further enhancements, implementing a technology-based, interactive instructional delivery mode, offering modularized units of study, and creating curriculum alternatives that include an optional laboratory course.

The long-run goals of the College are:

1. To get the number of students who begin two levels below College level curriculum in the basic skills disciplines to successfully complete college-level instruction in English, reading, and mathematics.
2. To increase the number of ESL students who successfully progress to college-level English or reading.

### Licensure and Certification Pass Rates

The College offers several career and technical education programs that prepare students for required licensure and /or certification examinations in their fields of study. These include Associate Degree (RN) and Vocational Nursing, Certified Nursing Assistant, Dental Hygiene, Paramedic, Emergency Medical Technician. There may be additional programs with licensure or certification industry expectations that have not yet been identified. Recent exam pass rate data is provided below to illustrate the quality of these programs.

### Licensure Exam Pass Rates

Program	2010-11	2011-12
Certified Nursing Assistant	95%	95%
Dental Hygiene	100%	100%
Licensed Vocational Nursing	78%	78%
Associate Degree Nursing	74%	83%
Emergency Medical Technician	78%	72%
Paramedic	86%	100%
Medical Laboratory Technician	95%	100%

Source: SWC Annual Reports to AAAJC and Office of Instructional Support Services

### Student Learning Outcomes

The College began its work on student learning outcomes in 2003. When the academic program review process was revised in 2005 learning outcomes was added as a component. Increased attention to faculty training was given between 2004 and 2006.

By 2007 the CurricuNET software was being used to capture and map learning outcomes from course to program to the institutional level. During the 2008-09 academic year, attention was given to student services learning outcomes and administration unit outcomes. Program learning outcomes were revisited for degrees, certificates, transfer plans and life-long learning. In 2009 the E-Lumen software program was adopted as a tool to track learning outcomes work, but was not fully implemented until 2011. An important feature of this software is that it allows assessment work completed on individual course learning outcomes to be rolled up to program and institutional outcomes based upon the curriculum mapping that the faculty have completed.



All courses have student learning outcomes (SLOs) and all but two percent have completed an assessment with a plan for improvement. All programs have program level learning outcomes (PLOs) and all have completed assessment with associated plans for improvement. All but one unit in Student Services have articulated outcomes and, all but one has conducted assessment work with related plans for improvement. A few of the student services units have completed three cycles of assessment. Of the 49 administrative units at the college, 47 have administrative unit outcomes and have assessed them. All of the courses offered at the College have had their outcomes mapped to one or more of the eleven institutional learning outcomes (ISLOs).

As illustrated below, most (45,686 scores in 2011-12) of the assessment work has been concentrated on ISLO #5, “assess and analyze data and information as they investigate issues and solve problems.” The second most popular (30,390 scores in 2011-12) ISLO was #2, “present their ideas in a clear and organized way to others.” The third most popular (22,648 scores in 2011-12) ISLO was #4, “formulate and share ideas, analyze data and information as they analyze ideas of others integrate them into their thinking.” ISLO #1 falls within the communications cluster of learning outcomes while both ISLO #4 and #5 fall into the thinking and reasoning cluster of learning outcomes.

### Institutional Learning Outcomes, Level of Effort 2011-2012

		Total Number of Scores
<b>Communication Skills (Listening, Speaking, Reading, Writing)</b>		
ISLO #1	Listen and speak actively and critically to identify a person’s position and then analyze it to determine its quality.	3,459
ISLO #2	Present their ideas in a clear and organized way to others.	30,390
ISLO #3	Analyze and evaluate text in writing.	8,824
<b>Thinking and Reasoning (Creative Thinking, Critical Thinking, Quantitative Reasoning)</b>		
ISLO #4	Formulate and share ideas, analyze the ideas of others integrate them into their thinking.	22,648
ISLO #5	Assess and analyze data and information as they investigate issues and solve problems.	45,686
ISLO #6	Use quantitative reasoning to identify, analyze and solve quantitative problems.	5,912
<b>Information Competency (Research and Technology)</b>		
ISLO #7	Research topics by identifying, analyzing and assessing the ideas from a variety of sources to conduct research.	5,816
ISLO #8	Students will use print material and technology to identify research needs and develop and evaluate information effectively and responsibly.	8,473
<b>Global Awareness (Social, Cultural and Civic Responsibility)</b>		
ISLO #9	Collegially work with diverse groups of people.	2,437
ISLO #10	Identify and examine the cultural values of different ethnic groups in a sensitive and respectful manner.	5,121
ISLO #11	Analyze and assess historical, political, economic, scientific and social issues in a way that enables them to participate in their community, nation and world.	2,837

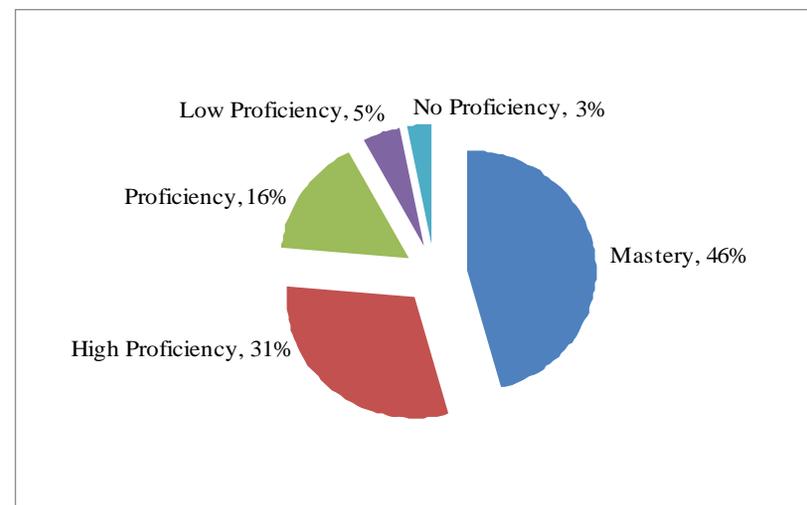
Source: Southwestern College, Student Learning Outcomes Committee ISLO Results Fall 2011 and Spring 2012; analysis by Cambridge West Partnership

Student work was evaluated by faculty using a rubric that ranged from mastery down to no proficiency with respect to the expected learning outcome performance. The scores when summarized by level of proficiency for the communications cluster of three ISLOs were quite high. As early as 2007, when Course Student Learning Outcomes (CSLOs) were drafted, some faculty may have listed skills in which they knew students were proficient. At that time there may have been some anxiety that instructor evaluation would be based on student learning accomplishment scores or misunderstanding an intent of SLO assessment – a tool to discover areas in learning with which students struggle.

For example, when the portion of the students that were rated as having achieved mastery, high proficiency, or proficiency are added together for the first ISLO, the combined total represents 92% of the scores. When the same rating categories are combined for ISLO two, the total represents 83% of the scores. ISLO three is the lowest combined rating, but these three categories account for 76% of the scores.

However, the “Campus-wide Rubric,” the generic rubric used across campus is a bit uneven. Students can score at (1) Mastery, (2) High Proficiency, (3) Proficiency; (4) Low Proficiency; or (5) No Proficiency. Three of the five options are weighted towards adequate (or higher) accomplishment. In fall 2012, the “Campus-wide Rubric” was adjusted to distribute weight more evenly.

ISLO #1, Listen and speak actively and critically in order to identify a person’s position and then analyze it to determine its quality, 2011-2012 Results



Source: Southwestern College, Student Learning Outcomes Committee ISLO Results Fall 2011 and Spring 2012; analysis by Cambridge West Partnership











The College Institutional Student Learning Outcomes Committee (ISLOC) is the group designated to oversee student learning outcomes. It has discussed the assessment findings and designed a process in which ISLO assessment results are distributed to the campus and units completing program review are encouraged to discuss the results and use them in their program reviews. The details of what it means to be at the sustainable continuous quality improvement level will be determined based on the outcomes of the assessment work. The College is slated to be at the sustainable continuous quality improvement level by the end of the spring 2013 semester, as that term will mark the end of the second full cycle of the use of SLOs in program review activities. The third full cycle will begin in fall 2013.

The assessment of student learning outcomes provides an opportunity for the College to assure the competence of those who graduate with a degree, certificate, or transfer to a four-year institution. Findings from recently published studies support the efforts of regional accreditors to require member institutions to take steps to assess learning and assure that the students are accomplishing the competencies envisioned by the faculty.<sup>40, 41</sup>

**Student Satisfaction**

In May 2011 the College launched a very comprehensive student satisfaction survey to elicit student opinions about 23 services, offices or facilities with which they had contact at the College. An email invitation was sent to 16,539 students and a reminder was sent as a follow-up to non-responders. Just over 800 students answered the survey (5% response rate). The survey was repeated in February 2012 when an email invitation was sent to 19,367

students and a follow-up was sent to non-responders. Just over 1,300 students responded in 2012 (7% response rate). In both years there were seven student services for which at least 60 percent of the students reported as something with which the students were very familiar, familiar or somewhat familiar. These services are listed in the table that follows.

Most Familiar Student Services

Service	Very Familiar, Familiar, Somewhat Familiar	
	Spring 2011	Spring 2012
Admissions & Records	95%	94%
Counseling	91%	87%
Assessment	87%	87%
Financial Aid	85%	83%
Career Center	74%	74%
Transfer Center	73%	66%
Health Services	66%	63%

Source: SWC Research and Planning Office. Student Satisfaction Survey. May 2011 and February 2012

<sup>40</sup> Charles Blaich and Kathleen Wise. *From Gathering to Using Assessment Results: Lessons from the Wabash National Study*. (University of Illinois at Urbana-Champaign: IL, National Institute for Learning Outcomes Assessment (NILOA) January 2011)

<sup>41</sup> Richard Arum and Josipa Roksa. *Academically Adrift: Limited Learning on College Campuses*. (Chicago, IL: University of Chicago Press, 2010)

The Admissions and Records area was the office with which students were most familiar. In the 2011 survey eighty-two percent of the students reported being very satisfied or satisfied with the core services of Admissions and Records (application and student ID processing) but only 77% were reporting at that level of satisfaction regarding the registration process itself. Almost identical results were reported in the 2012 survey. Perhaps this is a reflection of the difficulty students were experiencing in getting classes they wanted.

In 2011 seventy-nine percent of the students had reported that they used the services of the Counseling Center and of those 89% reported that the Center met their needs. In the 2012 survey 85% reported the Center met their needs. Eighty percent of the students indicated they were very satisfied or satisfied with the helpfulness of the Counseling Center staff whereas 77% reported satisfaction with the overall experience at the Counseling Center in 2011. Those exact questions were not repeated in the 2012 survey, but 75% of the responding students were very satisfied or satisfied with the counseling appointment session experience, whereas only 61% of the students reported at those levels of satisfaction from a walk-in counseling service.

In the spring 2011 survey eighty percent of the students who answered the survey indicated they had taken the placement exams in their first semester at the college, but only 70% responded that way in the spring 2012 survey. Eighty-one percent of the 2011 responding students and 82% of the spring 2012 students indicated that they understood how to select courses based on the placement exam results.

Seventy-three percent of the students who used Financial Aid gave the office an overall quality of service rating of very satisfied or satisfied in 2011. That level of response dropped to 68% in the

spring 2012 survey. Fewer students were pleased at that level (very satisfied or satisfied) when it came to the specifics of staff helpfulness (67%) and timeliness of disbursements (62%) in the 2011 survey. The level of satisfaction on those two aspects of service dropped even further in the spring 2012 survey. Only 62% reported very satisfied or satisfied with the staff helpfulness and a low 48% reported very satisfied or satisfied with respect to the timeliness of disbursements.

Seventy-nine percent of the students who used the reported that they were very pleased with the overall experience at the Career Center in 2011 whereas 72% reported that level in the 2012 survey.

In 2011 eighty-five percent of the students who used the Transfer Center reported being very satisfied or satisfied with the amount of information provided and 80% were equally pleased with the accuracy of the information. However, in the 2012 survey only 36% reported being very satisfied or satisfied with the overall experience, a large group (58%) was neutral.

Eighty-four percent of the students visiting the Health Services office were very satisfied or satisfied with their experiences in the 2011 survey. That level of satisfaction increased to 87% in the spring 2012 survey.

In both years there were four institutional support services for which at least 80 percent of the students reported as something with which the students were very familiar, familiar or somewhat familiar. These services are listed in the table that follows.

### Most Familiar Institutional Support Offices

Service	Very Familiar, Familiar, Somewhat Familiar	
	Spring 2011	Spring 2012
Bookstore	97%	96%
Food Services	85%	83%
Cashiering	84%	80%
Facilities	81%	79%

Source: SWC Research and Planning Office. Student Satisfaction Survey. May 2011 and February 2012

The College Bookstore was the institutional support office with which students were most familiar. In both the 2011 and 2012 surveys the students gave high marks (very satisfied or satisfied) to the courtesy of the staff, 82% of the responses were at that level, and cleanliness of the store, was rated favorably at 85%. Over three-fourths of the students were very satisfied or satisfied when it came to the staff knowledge about textbook selection and product information.

When asked about food services in the cafeteria in the 2011 survey, 68% of the students indicated they were very satisfied or satisfied with the friendliness of the staff and 65% were satisfied with the courtesy of the staff. However, only around 55% of the students were satisfied in regard to the selection of cold and hot items, wait times and the amount of food available. Only 39% of the students felt very satisfied or satisfied with the prices charged for the food items in the cafeteria. In the 2012 survey ratings for the friendliness of the staff and courtesy of the staff increased to 71%. In 2012 the very positive responses to the questions about selection of cold and hot items also increased to 60% of the students responding this way. However, satisfaction with the prices

of food items remained about at the same level of satisfaction. This level of satisfaction is common in higher education.

The Cashiering Office drew modest praise from students with 70% of the respondents indicating they were very satisfied or satisfied with the efficiency with which the office processed transactions in 2011 and 74% providing the same level of response in the 2012 survey. Sixty-nine percent of the students were very satisfied or satisfied with the friendliness and courtesy of the staff in 2011 and about the same portion of responses had the same high regard in 2012.

Fifty-seven percent of the responding students reported very satisfied or satisfied that the campus facilities met their educational needs in the 2011 survey. In the 2012 survey the very satisfied or satisfied responses to that question rose to 72% of the participating students.

Collectively, this information, and other responses on the survey, provides the College offices with some valuable insights regarding the effectiveness of the services and the College as a whole.

Also, during the 2012-13 academic year students were provided an opportunity to participate in a survey containing 19 fixed-response questions about campus facilities and three open-ended questions about facilities, instructional programs and student services. Four hundred ninety students completed the survey. Of those, the vast majority (84%) indicated that the Chula Vista campus was their primary attendance location. One hundred fifty four students offered an observation about instructional programs and services and 92 offered comments about student services and programs. Of the comments about instruction, 50% raised the theme of insufficient numbers of class offerings, 14% indicated they were pleased with the instructional program and 8% wanted

additional tutoring or library services to support their learning. Of the comments about student services, 45% expressed concerns about the shortfall of staff or the quality of services provided whereas 21% indicated they were pleased with the student services provided. The facilities information from this survey will be discussed in the Facilities Master Plan.

## B. Program Review Highlights

### Program Review Framework

Program review is the primary mechanism by which the College identifies the objectives and resources needed to fulfill its educational mission and to affect improvements. All instructional programs complete a comprehensive review on a three-year cycle using a template of prompt questions. Administrative and Student Affairs units complete a comprehensive review on a six-year cycle. All instructional programs, Administrative and Student Affairs units annually prepare a snapshot form to report on progress with action plans/goals as well as to make requests for resources. Programs that do not complete their report are not eligible to receive additional funding for one-time requests, classified positions, faculty positions, or facilities requests.

The instructional program review report follows the format of components listed below.

- Component I: Academic Program Course Review Form
- Component II: Program of Studies/Major Review Form
- Component III: Response to Previous Review
- Component IV: Review of SWC Statistical Data
- Component V: Criteria for Academic Program Review
- Component VI: Academic Program's Recommendations

- Component VII: Academic Program's Executive Summary
- Component VIII: Academic Program Review Snapshot

However, the snapshot portion also contains sections for departments/disciplines to:

- Summarize program/unit action plans for the year,
- Report on student learning outcomes assessments,
- Requests for resources (new equipment, supplies/minor equipment, facilities, human resources, and technology needs)

The comprehensive Student Affairs program review template is a little different as it follows this format of topics to be addressed:

- Faculty and staff involvement in service area and student learning outcomes
- Faculty and staff qualifications
- Efficiency of service area procedures and contribution to accomplishing goals
- Technology availability and support
- Adequacy of service area resources to reach goals and student learning outcomes
- Extent to which service area effectively meets student needs (reference survey results)
- Extent to which service area interactions with constituencies are timely and effective
- Service area contributions to student access and success

The snapshot portion of the Student Affairs report is the same document as is used for instructional programs.



that it is more suitable as a drawing studio. The proposal is to use the remainder of 705 to relocate the slide library (currently in building 750). The current drawing classroom is 711, is not adequate for the numerous sections of foundation drawing courses offered. Media-specific courses have to be scheduled in the same classroom, which creates a conflict and restricts instruction.

### **Performing Arts Overview**

The performing arts programs include Dance, Music and Theater Arts. They offer general education courses for the Associate of Arts degree with a major in those disciplines plus transfer to upper division programs at four-year colleges and universities. In addition to classes, the department offers public performances, master classes and workshops, fundraising opportunities, concert tours, adjudication, and outreach to new students.

The Music Department offers a variety of courses for general education, transfer, and the music major. A primary component of the music curriculum is musical performance, which provides opportunities for individual skill development in applied ensemble and live performance settings. Four core components are available to complete a lower-division music major: applied music, music theory, large performance ensembles, and classic piano.

The Theater Arts department provides training and performance opportunities for all levels of students. The courses offered by this department teach students acting, stage management, and backstage technical and design skills. The Theater Arts Department offers productions each academic year in Mayan Hall as well as several student productions in the Black Box Theater. The Theater Arts department is continually refining and broadening its production process to improve the programs it presents. Performance selections are chosen based on the abilities and resources of staff and students. The department strives to present

material that will challenge the students, yet be meaningful and interesting to the audience.

### **Performing Arts Planning**

Faculty in the performing arts disciplines have identified an overall need for an adequate performing arts venue.

The Dance program needs an additional studio about the size of room 1006 and also recognizes that it needs to complete some curriculum revision work to separate levels of the dance offerings.

The Music faculty, in the process of adding the SB 1440 Music Transfer Degree, has overhauled several current music major courses. The discipline has identified a need for additional full-time faculty to direct the orchestra and concert band. The faculty has requested wireless Internet in rooms 800 and 850, soundproofing for the practice rooms adjacent to room 802 (overlooked in the building remodel), and budget support for a music laboratory.

A primary concern for the Theater Arts faculty and staff is the replacement of Mayan Hall with a larger, better designed and equipped theater. The building is about 50 years old and has never been renovated. It has insufficient seating for large campus meetings. The technical shop area is vastly too small to handle the class sizes and equipment used. Storage space is limited and there is no space for rehearsals. The department has also identified the need for an additional full-time faculty member. If a new theater facility were provided, the faculty are interested in building out a technical theater emphasis.

### **Communications Overview**

The Communication Department serves the general education, elective, and transfer needs of students for communication and







## Applied Technology Overview

The applied technology area includes a diverse range of instructional programs in Automotive Technology, Administration of Justice, Architecture, Computer Aided Design, Construction Inspection, Computer Information Systems, Computer Literacy, Computer Science, Environmental Hazardous Materials, Electronics, Landscape Architecture, Landscape and Nursery Technology, Sustainable Energy Studies (SES), and Horticulture. Most of these programs are not designed as transfer curriculum; rather they prepare students for immediate entry-level employment or career advancement.

The Automotive Technology program prepares students for careers in the automotive industry. Certified by the National Automotive Technicians Education Foundation (NATEF), the courses align with NATEF requirements and standards. The program is also recognized by the State as a Certified Training Institution for the State's Smog Program. The National Institute of Automotive Service Excellence certifies each automotive instructor. The program of instruction offers co-operative work experience opportunities to students to intern in the real world and also offers training to military personnel who are about to be discharged.

The Administration of Justice is the study of matters pertaining to the criminal justice system. The program offers an Associate in Arts degree as a transfer preparation major. In addition, the department offers an Associate in Science degree with emphasis in corrections, forensics law enforcement and crime scene investigation. Over the last five years the program has developed more online and hybrid course offerings. A Transfer Model Curriculum Degree (SB1440) for Administration of Justice was completed and approved by the Curriculum Committee in fall 2012. The faculty in this program has offered a number of classes at the HECs and also provided a number of "College Bound" classes at

select local high schools where qualified high school students take a college level Administration of Justice course and receive both high school and college credits.

The Architecture and Computer-Aided Design and Drafting (CAD) programs follow an educational paradigm of "learn by doing" in that they teach problem-solving strategies and promote a collaborative environment for students to explore creative approaches to design. The program is designed to facilitate transfer to an institution specializing in architectural instruction. The CAD courses are designed to teach students relevant skills and technical knowledge used in a variety of engineering disciplines.

The curriculum offered by the Construction Inspection and Management programs prepares students for careers as inspectors, estimators or apprentices in various construction trades. The Sustainable Energy Studies curriculum provides students the scientific education that underlies contemporary issues about energy resources and conservation.

The Computer Information Systems program is in the unique position of offering academic transfer, degree attainment, and certificate courses/programs that prepare students for success in their academic and career pursuits. Historically, the ratio of academic transfer courses to career technical courses scheduled in Computer Information Systems has been (1:3). The curriculum is updated regularly to reflect input from Industry Advisory Committees, the SD4C (San Diego Consortium of Four Year and Community Colleges), faculty employed in the Information Technology Field, Transfer Model Initiatives, and outcomes based inquiry. Recent curriculum development involves courses and programs in the following areas of Computer Information Systems; Search Engine Optimization, Web Development, Mobile Apps and Platforms Programming, Cloud Computing, Big Data

and Visualization, Open Source Software, BYOD (Bring Your Own Device)/Managing the Consumerization of Information Systems, and Working in Virtual Teams.

The Computer Literacy Program intends to implement a Computer/Digital Literacy assessment to proactively appraise the proficiency of the diverse student population that draws from two distinct Metropolitan areas (South Bay, San Diego predominantly - 500,000 population, and San Diego City and County - 1,300,000 population) and (Tijuana - 1,300,000 population) to better serve student success. Southwestern Community College is the only California Community College that serves a combined domestic and nondomestic metropolitan area of close to 2,000,000 in population.

The Computer Science (CS) program at the College is in a growth and revitalization phase. All core course outlines have been reviewed and updated within the last three to four years. The curriculum is in alignment with the best practices and content that is suggested by nationally recognized professional, educational, and/or scientific computing societies, the Institute of Electrical and Electronics Engineers (IEEE) and the Association for Computing Machinery (ACM).

The four foundation level courses of the CS program are Math 130 (Introduction to Computer Science), Math 140 (Data Structures and Algorithms), Math 230 (Computer Organization and Architecture), and Math 260 (Discrete Mathematics). These courses use a host of tools in order to introduce students to relevant and topical Computer Science knowledge kernels such as Eclipse, NetBeans, BlueJ, JUnit, pcSpim, MARS, and others. The faculty closely engages with the students in project-based-learning activities. This pedagogy has proven to be an element of the computer science program that has helped increase rates of success, retention and

transfer to four-year institutions. The program's relationship with surrounding institutions (UCSD and SDSU) has also been critical to the direction and growth of the CS program. Starting in 2012-2013 all four of the core courses will articulate to both UCSD and SDSU.

The Environmental Hazardous Materials Technology Program incorporates the principles of science, communication, regulations, safety and engineering as these pertain to environmental management and occupational safety and health. The curriculum allows for students to apply the scientific method, seek out scientific information, be familiar with applicable regulatory requirements, and learn to use instrumentation and personal protective equipment while applying these processes to ensure health and safety to people and the environment.

**Applied Technology Planning**

In general the instructional programs in this department have requested additional electrical power supply to meet ever-growing electrical demands of equipment used in the instructional activities and to ensure safety. Inadequate storage is a second cross-cutting area of concern as is the need for increased and improved local internet connectivity and hard-wired computer labs and smart classrooms.

The Automotive Technology Program facilities date back to the early 1960's without any major renovations since its inception, therefore presenting a very outdated look and appearance. Among the most outstanding facility needs for the program are heavy-duty shelving to store heavy training aides (engines, transmissions, differentials, etc.), a covered storage area in which to locate large training aides, and a computer laboratory. The program needs to acquire training aides, tools and equipment, which will replace old/outdated equipment and also to reduce the

student-to-equipment ratio. The faculty has identified a need for a third full-time instructor.

The Administration of Justice Program proposes to renovate the existing Forensic Laboratory/Classroom. Although the construction of the forensics lab has been delayed, significant equipment purchases have been completed to furnish and equip the lab. Space had previously been designated for the lab (510 building), however, that space was reallocated for classroom use. A portion of the structure in the 550 building has been earmarked for the lab and the program is optimistic about the promise of the new lab becoming a reality.

The faculty in the Architecture and CAD programs has identified the need for additional full-time faculty members, one of who will direct the CAD program. They envision the construction of a large-screen lecture hall with an adjacent jury/gallery space that will provide students with an opportunity to practice and develop important oral communications skills. This facility will be shared with visual arts programs, photography in particular. Both programs require upgrades to software used in the instructional activities. The CAD program in particular would like to expand offerings in continuing education as a means to recruit new students.

The faculty in the Construction Inspection and Construction Management Planning programs would like to develop internships with local governing agencies and have requested a full-time faculty member to coordinate the two programs. The Sustainable Energy Studies (SES) faculty intends to promote the curriculum within the South Bay while seeking a more coordinated and complete budget.

The Computer Information Systems (CIS)/Computer Literacy faculty has indicated a critical need to replace full-time colleagues

who have retired. The web designer and web authoring courses and program are most impacted by retirement losses. Community demand in the beginning Dreamweaver and Universal Design courses, required for every web-major, suggests that additional offerings at the higher education centers or in the evening/weekends could be supported. Web design programs are driven by industry standards software; therefore, the program needs the Adobe Creative Suite Web Premium software to be upgraded on a regular schedule, as is performed in industry, about every 18 months. Two software upgrades during this a three-year program review cycle, CS6 and CS7, or whatever the industry adopts, will be required to keep current. The faculty has indicated the program will need hardware upgrades such as 8-10 gigs of RAM, faster processing speed, larger monitors, and wireless in the classrooms in order to run the programs. As the digital world expands into the use of portable devices, student web developers must be taught to design by actually using such equipment. Students, therefore, need access to these devices to use and test modern portable device designs. This instructional program will need to purchase portable devices that can be checked out (during class sessions only) to enable instruction: iPads, iPods, netbooks, etc. The essential infrastructure needs arising from this curriculum direction are sufficient wireless and electrical connections for students with mobile devices. A NETLAB one-year maintenance agreement is a substantial but vital investment. Netlabs is a proprietary learning environment required by Cisco. It is a foundational tool that prepares students for industry and proprietary certifications and allows for instructor-facilitated, student-remediated learning, and scenario problem-solving of complex network configuration and maintenance.

Computer Science faculty believe there is an immediate need to transition to cloud-based curriculum-delivery technology solutions. The unit is currently modifying the curriculum and has submitted



### **English as a Second Language(ESL) Overview**

Basic skills and advanced courses for non-native speakers are offered by the department to prepare students for college-level instruction through the Learning English for Academic Purposes (LEAP) emphasis. This initiative uses a sustained theme content-based instruction (CBI) approach to language teaching. As of fall 2010 the curriculum has been recast to require students to take 10 to 12 units in one term.

### **ESL Planning**

The ESL offerings have been greatly dependent on state Basic Skills Initiative dollars; hence the decline in these funds has curtailed a number of supports to the instructional program. The faculty has identified a need for additional full-time instructors and an enhanced budget. ESL has no building dedicated to the discipline. The instruction is spread throughout the campus. There are plans to offer some hybrid courses and establish a matriculation path between ESL and the English Department classes.

### **Reading Overview**

The reading program became a department in 2005 and has experienced considerable growth since then, as increasing numbers of students are in need of basic skills instruction in reading. For many students, the reading curriculum is the gateway to all other courses at the college.

### **Reading Planning**

The program is located in the Academic Success Center, 420 building, and uses rooms 427 to 429 that were designed expressly for the program. They also use rooms throughout the Chula Vista campus as they are available. The faculty would like a computer laboratory dedicated to their discipline as they currently share a lab with the English Department. As no tenure track faculty members

have been hired since 2006, the department has identified a need for additional full-time faculty members. The program believes that the online learning center needs additional staff to help faculty with this new and different instructional modality. The faculty plans to offer more sections via online, hybrid and fast-track modalities.

### **World Languages Overview**

The department offers a wide range of foreign language instruction but adheres to the Foreign Language National Standards and the American Council for the Teaching of Foreign Languages (ACTFL) guidelines in teaching the primary language offerings of Spanish, French, Italian, and Portuguese. The Department also offers instruction in American Sign Language, Chinese, Filipino and Japanese.

### **World Languages Planning**

The faculty would like to offer a more robust study abroad program. They have identified a need for additional full-time faculty members and a Lab Coordinator for the Language Acquisition Laboratory. The program does not operate with enough laboratory space where the instruction is computer-assisted and therefore needs a larger laboratory area. The department uses a variety of computer technology in the instructional program and needs support to acquire upgrades and additional software.

### **School of Social Sciences, Humanities and Business**

The curriculum of this school is organized into three areas: (1) Social Sciences; (2) Humanities and (3) Business and Legal. The business and legal curriculum was added to the school in June 2012. All courses in the Social Sciences and Humanities are designed for transfer. The Business curriculum is intended for both transfer and preparation for immediate employment.



(5) Accreditation Liaison. The units providing instruction include: (1) Academic Success Center; (2) Continuing Education, Contract Education and Economic Workforce Development; (3) Library; and (4) Learning Assistance Services Center.

### **Learning Assistance Services (LAS) Overview**

The program provides tutorial support to students at all levels of the College experience. It is centrally administered from the Academic Success Center (ASC) with satellite services in the Chula Vista campus library and the three higher education centers. Two strengths of the program are the intensive, certified training required of all tutors and the collaboration between LAS staff and every component of the College community. LAS services include free tutoring to enrolled SWC students, supplemental instruction (power study program), test proctoring, fee-based tutoring to teens and tweens plus throughout San Diego County, workshops on academic study skills, orientation to the services, in-class visitations, and website links. Tutors are provided three levels of training through a series of two-unit courses (ED 100 to 102). The ASC was remodeled in 2005 to provide approximately 5,900 square feet of space for LAS use.

### **Learning Assistance Services Planning**

The LAS Department is actively pursuing online tutoring services to increase the effectiveness of the overall program and to meet rising demand for tutoring services. Discussions are taking place with the Veterans Services staff to develop a program of early intervention for students, including assessment test preparation. The Academic Success Center (ASC), which includes the Writing Center, Women's Math Network and ITC labs, is already over capacity during prime time morning and evening hours. Throughout the day, the ASC study areas are often full and the study rooms occupied. Additionally, synchronous online tutoring will require

space for additional computers, but also for quiet areas, so tutors are able to conference online with a minimal amount of distraction. All of this points to a need for more space. The Department would prefer more sound-sensitive study rooms as opposed to the open study areas that currently represent the majority of LAS Department space. The Department has also identified a need for a permanent director with a 12-month assignment to coordinate the services that are offered throughout the year. To increase the efficiency in collecting and collating attendance data, the Department has requested laptops or tablets to facilitate the entry of tutor contact data.

### **Library Overview**

The Library serves the College as the primary source of information in its various forms, be they book (print), electronic, or via off-site Internet services. Modes of instruction include face-to-face contact, classroom orientations, and online services, including the very popular chat reference service. The Library provides students with the skills to locate, evaluate and use information for educational and/or research purposes, and its instructional program is integrated into every academic department. One-unit courses offered are LIB 110, Simplified Research: Print and Electronic and LIB/CIS 151, Research Using the Internet.

### **Library Planning**

Through retirements the faculty of the Library Department has been depleted and must be replaced. Budget resources for the maintenance of the collection, including electronic databases, tools and services have been reduced and need to be augmented. Although signature programs at Otay Mesa and National City have accreditation requirements that require instructional resources to be comprehensive and up-to-date, there is no established budget for books or periodicals at any of the three centers. This area



in the 2010 Substantive Change Proposal, the College offers a number of degrees through distance education. The Online Learning Support Center assists faculty to learn how to teach an online course and use Blackboard, the course management system. The Online Learning Support Center also assists students to discover how to be successful online learners, meeting one-on-one when possible and offering a one-unit online learning orientation course. Additional staff is needed at the present time, and this will continue if more online courses are offered. The librarians offer a one-hour, hands-on orientation to the course management system at the beginning and middle of each semester. These are much needed and well attended, and the College may want to consider offering more sessions on the Chula Vista campus as well as at the Centers.

### **Instructional Support Services (ISS) and Online Learning Support Planning**

ISS has identified a need for additional support staff and a more cohesive office space configuration that will be quieter and allow staff to complete their data intensive tasks. The unit has also identified a need to acquire and use scheduling software that will provide consistent, reliable, and an accurate submission of schedules. There are several reporting needs that the ISS staff has proposed to the Institutional Technology unit. The Online Learning Support unit has identified a need for additional staff as the numbers of courses offered in that modality have increased and quality control of the instruction is a major area of concern for the College and the regional accrediting agency. The provision of comparable services for both the student attending on campus and the online student is of concern, particularly in tutoring and counseling. The unit is considering a proposal to make the optional one-unit orientation course mandatory.

### **Higher Education Center, Otay Mesa (HEC OM)**

The HEC OM is a state approved higher education center that opened in August 2007. Classes are offered six days a week Monday through Saturday. It hosts a cluster of related Nursing programs (Associate Degree/Registered Nursing, Vocational Nursing, Certified Nursing Assistant, Operating Room Nurse, and Surgical Technology), several first-responder programs (Police Academy, Fire Science, Emergency Medical Technician, Emergency Medical Technician and Paramedic, Environmental Hazardous Materials Technology) and applied business programs (Leadership and Supervision, Administrative and Legal Office Assistant-Bilingual, Virtual Office Professional, Community/Economic and Urban Development, International Business, International Logistics and Transportation, Payroll Clerk, Travel and Tourism), plus a range of general education and basic skills course offerings. The Center also provides oversight and office space to the Center for International Trade and Development (CITD). The HEC OM is a 75,000 square-foot facility built to serve 5,000 students. However, when constructed the HEC OM did not provide an adequate outdoor facilities (police physical ability testing and training area, storage for fire, police and EMT program materials) to support the needs of several programs located at the Center.

The Library at Otay Mesa is open a total of 30 hours per week, Monday through Thursday. This is insufficient for those students who need access to resources early in the morning, after work in the evening and on weekends and for students who cannot afford to buy their own textbooks. The Library needs access to an instructional computer laboratory to provide orientation and workshop sessions. Many of the Library resources are in electronic databases; therefore, instruction in how to access and use those resources is essential. Also, the Library does not have but needs a dedicated budget line to acquire and maintain the











of general education and basic skills course offerings. A grant-funded Family Resource Center program is located at the site as is both the San Diego Small Business Development Center and the staff of the San Diego-Imperial County Lead Regional Center. The overall growth of programs and student enrollments at the HEC NC has placed a strain on the limited numbers of faculty and staff assigned to the location.

The Library at National City is open a total of 14 hours per week, Monday through Thursday. This is insufficient for those students who need access to resources early in the morning, after work in the evening, and on weekends and for students who cannot afford to buy their own textbooks. The Library room also serves as a proctoring center, study hall, and conference room. The Library does not have but needs a dedicated budget line in order to fulfill its mission of providing support for instructional programs.

The Center Director oversees the Navy Apprenticeship Program, Navy college program of instruction, and the San Diego Contracting Opportunities Center (located in Mission Valley).

The Crown Cove Aquatic Center (CCAC) on Highway 75 (Silver Strand) provides recreational leisure, and safety instruction and reports to the Center Director.

Taken all together the HEC NC serves the communities of National City and Coronado. The College has applied to the Chancellor's Office to have the HEC NC designated as a Center for funding purposes.

### **Dental Hygiene Overview**

The program provides entry-level education and experience to prepare graduates for licensure as dental hygienists. Classes for the two-year degree program are taken at the Center and

laboratory training is provided on-site at the 22-chair Dental Hygiene Clinic under the supervision of licensed dentists and registered dental hygienists. Students provide oral health care education and dental hygiene services to the general public as well as the College community. The Hygiene program is accredited by the Commission on Dental Accreditation and has been acknowledged as a program "approved without reporting requirements." The program recently started a pre-dental hygiene course to assist students in determining if the program of instruction and career are a good fit for the student.

### **Dental Hygiene Planning**

The program has identified a need for additional staff- a full-time clinic coordinator, a receptionist, a part-time computer support technician, and faculty for the skill-building course that will generate additional FTES. There are needs for equipment replacement, refurbishment, and maintenance plus two new digital radiography sensors. While the program began as a no-cost-to-the-patient community service, the burden of budget cuts has prompted a reconsideration of the minimal fee issue. Nearly all dental hygiene education programs in California charge fees for dental services. If fees were charged, the expected income likely would generate enough revenue to pay for a needed bilingual clinical receptionist to manage the load of 2,000 patients per year. Concorde, a for-profit college, opened a dental hygiene program in San Diego during September 2011 and will graduate its first class in spring 2013. The private, for profit, San Joaquin Valley College is opening a third campus in Chula Vista and expects to accept its first class of dental hygiene students in January 2013. Once all three programs are in full operation approximately 90 students will graduate each year and employment opportunities likely will plummet since the market will be "flooded."

The program leadership is reviewing ways to address attrition



for-profit institutions as well as with programs at other community colleges. To improve the current program the faculty has identified needs for additional state-of-the-art computer equipment, scheduling program, MS Office, electronic health record system, computerized health coding system, and anatomically correct models for student learning. To address student learning needs, based on assessment results, the faculty are considering prerequisites that would require completion of appropriate English instruction; typing speed of 40 words per minute with no more than five errors, and basic computer instruction is MS Office and related operating systems. The program has begun a comprehensive curriculum modification to align its offerings with national accreditation standards for allied health programs, but faculty in the program are all part-time appointments. The movement of the program from Chula Vista to the HEC NC prompted the conversion of a lecture classroom into a clinical/laboratory space.

### **Southwest Regional Apprenticeship Overview**

The College is in partnership with the Puget Sound Naval Shipyard and Intermediate Maintenance Facility, the Southwest Regional Maintenance Center, Naval Air Fleet Readiness Center Southwest, and Portsmouth Naval Shipyard Point Loma to offer the Navy Apprenticeship program. It is a four-year, accredited co-operative education program. Apprentices attend classes in the Apprentice School at the Naval Air Station (NAS) North Island and earn a Certificate of Proficiency in Leadership and Supervision as well as a Journeyman Certificate in their chosen trade. Courses offered at the HEC NC help students achieve their academic goals.

### **Southwest Regional Apprenticeship Planning**

Classes in this program are offered at the Naval Air Station, North Island (Coronado, CA). The program was able to earn federal approval as a journey level apprentice program within the first

year of operation.

### **Family Resource Center Overview**

Since 2004 the HEC NC has been the host for a Family Resource Center/Microenterprise Family Childcare (MEFC) program that was grant funded from the Department of Housing and Urban Development. The program linked the College to the local community by providing access to health and social services through the sponsorship of workshops. The MEFC provided courses and training to Spanish-speaking participants who wanted to establish a licensed childcare business in their own homes.

### **Family Resource Center Planning**

Although the original grants are coming to a conclusion the HEC NC has pursued other grant resources for a different target audience but with a similar purpose.

### **Small Business Development Center (SBDC) and San Diego Contracting Opportunities Center (SDCOC) Overview**

The SBDC provides counseling and technical assistance to small businesses located south of the interstate 8 highway. The College also hosts the regional management team for small business development activities in both Imperial and San Diego counties. Both of these staff groups are located at the HEC NC site. The SDCOC assists businesses in preparing applications for government contract awards. It has offices in the Mission Valley property of the Point Loma Nazarene University.

### **Small Business Development Center (SBDC) and San Diego Contracting Opportunities Center (SDCOC) Planning**

Both the SBDC and the SDCOC value the opportunity to have office space and representation strategically placed in the service area. Both desire access to a classroom for workshops and seminar



assistance to persons seeking information about the college. Assistance begins with the student's initial contact with the College, and continues throughout actual attendance, completion of education programs, and finally transfer and/or graduation.

### **Admissions and Records and Outreach Planning**

The unit plans, through CCC Apply, to implement E-transcripts, online transcript requests, and international student applications. The Outreach office intends to create additional forms of communication with students such as Facebook accounts and to enhance video instructions on the web pages to provide a clear set of procedures.

### **Student Development: Activities, Health Services, Co-operative Work Experience Education (CWEE), Service Learning, and International Programs Overview**

The Student Activities unit provides supervision to the student government and club system at the College.

The mission of the Health Services unit is to protect, support and promote student health in the belief that healthy students learn better and stay in school.

The CWEE program provides internships for students to apply classroom learning to real life work assignments and is part of the larger College effort in economic and workforce development. Approximately 30 degree or certificate programs at the College incorporate CWEE. Service Learning is a teaching strategy that ties course curriculum and concepts with service in the community. Courses in Sociology, Communications, English, Spanish and Math offer this learning opportunity. Students who participate in a course that offers service learning serve a minimum of 15 hours over the semester at a non-profit organization, public agency or

school. At the end of the semester, once hours are completed, students receive certificates of achievement and notation of their hours on their co-curricular transcripts.

The International Programs unit promotes study abroad.

### **Student Development: Activities, Health Services, Co-operative Work Experience Education (CWEE), Service Learning, and International Programs Planning**

In the coming years the Student Activities intends to increase the visibility and participation of student government in community events. There are plans to develop a tracking system to document student involvement in ASO and clubs. The unit recognizes the need to create an equipment replacement plan for the ASO. Student Activities has indicated a need for additional space and meeting places for student government and clubs.

The Health Services unit will explore electronic medical records as a way to increase efficiency. It also wants to implement comprehensive laboratory services for students and will see a partnership with a laboratory service. The unit has set a goal to update the written procedures such as standing orders, clerical procedures, nursing policy and procedures. Health Services has indicated that there are insufficient numbers of nursing personnel to provide services full-time at the Chula Vista campus and the HEC locations and therefore additional staff are required. The current Health Services space, with only two exam/treatment rooms, has been outgrown and the space is not ADA compliant. Also, the staff is currently located in two different buildings and need to be unified into one space.

The CWEE unit intends to increase the numbers of students enrolled in the offerings and to implement a formal student evaluation form to determine overall student satisfaction and



realign the process for the evaluation of external transcripts as that process takes too long.

The Veteran Services Office is seeking another unit of personnel to handle the increasing numbers of veterans attending the College. The unit also intends to explore ways to better track veteran students through the College technology systems and then to increase outreach to those students. The Office recognizes the critical need for a dedicated facility space for a Veterans' Student Center. The office also wants to develop a process for managing veteran debt letters.

### **Counseling and Matriculation**

The principal units within Student Services are: (1) Counseling Center; (2) Assessment and Prerequisite Review Center; (3) Disability Support Services; (4) Extended Opportunity Programs and Services (EOPS)/CARE; (5) CalWORKS; (6) Student Employment Services; (7) Transfer Center; (8) Career Center; and (9) Center for Technical Education and Career Services (CTECS).

### **Office of the Dean of Counseling and Matriculation Services Overview**

The Dean is responsible for ensuring that all departments are functioning well and utilizing human resources effectively and efficiently within the School of Counseling and Personal Development, while leading the School in the provision of greater access, student success modules, and improved retention of students. In addition, the Dean provides: the responsible oversight to budget planning, expenditures, and reporting; direct oversight to the employee evaluation process; ensures that tenure review processes are followed in accordance with contractual timelines and that tenured faculty are evaluated according to contractual requirements; ensures that all departments are defining and

assessing SLOs and completing the annual program review; ensure tracking for the purpose of reporting to MIS occurs at the end of each session. The Office of the Dean also oversees the probation and disqualification processes for the college, intervention strategies for students placing onto probation status, evaluates petitions for reinstatement after disqualification and petitions for students wishing to take extra unit loads. The Dean is also responsible for keeping various policies and procedures current, as well as a vivid participant in many college-wide committees. Through this campus-wide involvement the Dean is able to provide insight and leadership on behalf of students, staff and faculty.

### **Office of the Dean of Counseling and Matriculation Services Planning/School of Counseling and Personal Development**

On an annual basis, and in conjunction with School faculty, administration, and staff annual goals are developed for each department located within the School. The annual goals are developed with Institutional Strategic Priorities and Governing Board Goals as the driving parameters. SLO assessments are also reviewed and new goals and objectives often result. Campus Climate surveys also provides input from students and the greater college community in terms of their satisfaction with departmental services and customer service. Again, all of this is reviewed holistically and with each department to develop goals specific to departments and administrative goals for the Dean's office.

### **Counseling Center Overview**

The Center provides a wide array of assessment tools that help students to assess personality traits, interests, and values to assist in the identification of career clusters that fulfill basic needs and personal goals. In addition, a wide variety of software and Internet links are provided to assist students with the investigation of career







Disability Support Services faculty assist students with developing career and educational goals, fine-tuning study skills and developing college survival strategies, and building specific skills to further their college success are provided through several course options. Some courses are taught online.

### **Personal Development Planning**

The faculty involved with teaching Personal Development work closely with department chairs on a regular basis to plan for annual improvements. Counseling and Disabled Student Services provide Personal Development instruction and each Chair reviews SLO and outcomes with teaching faculty to plan for improvement.

### **CalWorks Overview**

The California Work Opportunities and Responsibility to Kids program at Southwestern College provides assistance to TANF (Temporary Assistance to Needy Families) participants that include academic, career, and personal counseling services. Essential CalWORKs Program elements include service coordination, case management, work-study, and job development/placement.

### **CalWorks Planning**

Departmental surveys and evaluations are implemented and review by staff and in conjunction with lead coordinator, EOPS Director, to continually improve the effectiveness of the department. The Campus Climate survey also provides input.

### **Student Employment Services (SES) Overview**

The SES department assists students with attaining part-time employment on- and off-campus. SES also assists with the development of the resume and a job search plan. Each semester at least one job fair is provided where many local employers come to the college to meet students. SES collaborates with the Career

Center, CTECS, and CalWORKs programs to expand services offerings to students.

### **Student Employment Services Planning**

The staff and supervisor to develop new goals and improvement each year review departmental surveys, Campus Climate, AUO and outcomes. Departmental surveys are often collected electronically through the web.

### **Transfer Center Overview**

The Transfer Center provides several targeted services to assist students in identifying a transfer university goal and developing a plan of action for completing the transfer as a junior standing student. Specialized workshops, transfer fairs, university tours, transfer admission advocacy, and individual counseling services are provided.

### **Transfer Center Planning**

The overall planning for the Transfer Center is driven by the School/Dean planning processes, but in addition the counselors and staff working directly within the department, analyze current trends in transfer, review transfer statistics and university criteria to continually improve services to students. AUO and outcomes are analyzed; surveys and Campus Climate responses also drive customer service and improved strategies.

The Transfer Center intends to increase transfer rates by developing a greater scope of services and visibility on campus through improved marketing strategies to increase participation of faculty and staff in the transfer process, research teleconferencing opportunities, and increase information dissemination. The Center staff is interested in establishing the means to offer virtual advising with those institutions that no longer conduct campus visits. There

is also an interest in reviewing and updating the Center website to improve navigation for students.

The Transfer Center, Career Center, and CTECS/WRC are a hub of activity on and off campus. These programs collaborate on many joint projects throughout the year, and would be better served as one unit under the direction and supervision of an Academic Director (as noted in Program Review). Currently, the Transfer Center and the Career Center are provided leadership by counselor reassignments and the Dean of Counseling and Matriculation Services. To improve effectiveness and increase student success and transfer, a full time director with increased support is needed.

**Career Center Overview**

The Career Center provides a wide array of assessment tools that help students to assess personality traits, interests, and values to assist in the identification of career clusters that fulfill basic needs and personal goals. In addition, a wide variety of software and Internet links are provided to assist students with the investigation of career attributes, training needed, workplace environment, and salaries and benefits provided by the field. The Center also provides a wide array of workshops that assist students with selecting a major, developing a resume, and understanding Associate level degrees. Once students complete the Career Assessment battery, they are provided with an individual counseling appointment to discuss the results of the assessments and develop plans for next steps.

**Career Center Planning**

The Career Center needs a separate budget rather than relying upon the overall counseling and assessment budget resources. Career Center staff would like to increase counselor hours assigned to the program so that it can better serve the students

attending the HECs. The Center staff intends to provide online access for all enrolled students who are interested in career planning information.

**Center for Technical Education and Career Success (CTECS) Overview**

Is Perkins funded categorical program that provides counseling, educational planning, and career services to students enrolled in Career-Technical fields. In addition, special programs are developed to assist with special populations and the identification of high-wage and high-demand fields. Carefully focused annual goals address statewide Core negotiated standards.

**Center for Technical Education and Career Success Planning**

The CTECS has recommended district funding for the unit and increases in staffing to provide additional services to the target population of students.

**Women’s Resource Center (WRC) Overview**

The WRC provides community services and links to vital resources for students and most specifically, assists women who are pursuing non-traditional careers. Fresh Start services are provided by the South Bay Community Services, Domestic Violence support by the YMCA, and counseling services are provided. In the spring, a Women’s History Month takes places with several specialized workshops and speakers. This is the home of the first Chalk Art Festival to take place on campus and students and staff look it forward to each year alike.

**Women’s Resource Center Planning**

The WRC is a very small program that strives to improve resources for students needing special assistance. The department reviews

Campus Climate and internal surveys and evaluation tools completed by students participating in services and programs to continually improve the departmental services

### **Administrative Services Division**

This area of the College provides a range of administrative services to the College. The units in this area include: (1) Financial Services and Payroll; (2) Procurement, Central Services and Risk Management; (3) Bookstore; (4) Food Services/Contracts Food Program Projects; (5) Facilities, Operations and Planning; (6) Maintenance; (7) Grounds; (8) Custodial; and (9) Campus Police.

### **Financial Services and Payroll Overview**

The role and responsibility of the Financial Services office is to ensure that the fiscal operations of the campus are planned, controlled, and accurately accounted for in the financial records. This applies to all funds, including appropriated, generated, awarded, donated, or otherwise received or spent by the campus from any source or for any purpose. The Fiscal Services operation is responsible for the fiscal accountability of grants, the campus district budget, and auxiliary funds. The Cashier's Office provides information and services in a quick, accurate, and student-centered manner to implement standardized cash receipting and produce timely and accurate invoices, payments refunds and deposits.

### **Financial Services and Payroll Planning**

The Department is working to migrate the purchase chart of accounts module into Datatel R-18. The Training Services Department will collaborate with the Finance, Financial Services and Budgeting department to provide budget workshops to representatives from all campus departments to enable them to monitor their budget expenditures and to stay within the amounts allocated. The Cashier's Office, in collaboration with Institutional

Technology, will design and implement a sustainable program to automate the student fee refunds processes. The staff will also work to clear out the backlog of student refunds.

### **Procurement, Warehouse, Office Support Services and Risk Management Overview**

The Procurement, Office Support Services, and Risk Management units provide a variety of campus supports to all units of the College. These include mailroom, purchasing services, office support and printing services, warehousing, contracting, and risk management. Professionals in these units provide a unified purchasing system that ensures integrity and fairness with centralized responsibility for oversight of solicitation, vendor selection, negotiation, award, contract management, reporting, disposal of surplus property, and event support.

### **Procurement, Warehouse, Office Support Services and Risk Management Planning**

These units support the institution's educational programs and goals while pursuing opportunities to incorporate efficient procedures, processes, standards and technology to improve the overall efficiency in all areas of operations that will in turn enhance and benefit the student's educational outcomes.

### **Bookstore and Food Services/Contracts Food Program Projects Overview**

The Bookstore provides the campus textbooks, supplies and supplemental learning materials to support the educational goals of students and faculty. The store is owned and operated by the College and has representation at each of the Higher Education Centers plus the Chula Vista campus. Campus Food Services provides students, staff and guests with high quality foods and exceptional customer service in a clean and safe environment. The unit supports the Culinary Arts instructional program.



“Emergency Preparedness” workshops for all staff has been rolled out by Campus Police.

### **Human Resources Division**

This area is organized into five subunits: (1) Staff Development; (2) Tenure Review; (3) Human Resources Compliance; (4) Employee Benefits; and (5) Human Resources. The area goal is to support the district in the programs and services it provides to students and the campus communities by performing with integrity, responsiveness, and sensitivity. Among the services the Human Resources Office offers are the coordination and facilitation of recruitment for classified and academic staff, performance evaluations, and consideration of classified and compensation matters. In addition, the Office offers assistance and resolution of employee relation matters; interprets and implements union contracts; provide orientations for new employees; maintains personnel records; and administers employee leave benefits and other applicable fringe benefits (except health and welfare benefits). The Office adheres to relevant state and federal regulations.

To support the College mission and priorities, the Staff Development Program provides a comprehensive professional development program for all staff. The program of professional development is planned by using data from an annual “Needs Assessment” survey of each employee constituent group. Staff Development organizes and coordinates two all-college “Opening Day” professional development events each year, before the start of the fall and spring semesters.

Coordination of special professional development events for each constituent group includes a workshop series for part-time faculty, a “Classified Professionals Staff Development Day” and a series of workshops for administrators and managers. Staff Development is also responsible for providing all new staff orientations, providing

two orientations per year for new Classified Professionals, two orientations per year for new Part-time Faculty, and an orientation for new Full-time Faculty usually held as a semester-long program in the Fall semester when new full-time faculty have been hired.

The Staff Development Coordinator is a full-time faculty member who provides leadership for the Staff Development Program for all staff, and serves as the “Flexible Calendar Coordinator,” providing coordination of all Flex activities for Faculty.

The Training Services Department, within the Staff Development Program, offers technology-training workshops that include both hardware and software. The Training Services Coordinator is responsible for scheduling and providing one-on-one and group workshops, as well as developing curriculum, job aids, and additional resources for the different training workshops. The Training Services Coordinator is also responsible for coordinating with other departments to invite staff to provide additional technology training on specialized topics such as smart classrooms. The Staff Development Program Assistant provides essential support to the entire Staff Development Program, making logistical arrangements for all professional development activities and events, and maintaining all staff development and Flex records in the Staff Development database.

### **Superintendent/President Division**

Office of the Superintendent/President Overview

The Superintendent/President provides overall leadership to the College and works with the Governing Board to shape College policies and ensure the economic, effective, and efficient operation of the institution.





- Can't promise future institutionalization of grant ideas
- Need to use social media more
- Veteran's services are weak
- Basic skills boot camp, length of time in basic skills still too long
- More online support services needed
- Need information on employment outlook for any degree or certificate
- More internship opportunities are needed

- Community support- how to rebuild it
- Lack of public transportation, particularly for students

### **Opportunities**

- Parcel tax initiative
- Capture the students, a record size group is now in the 7<sup>th</sup> grade
- Offer fee-based courses to sustain all courses and services
- Capture revenues outside of apportionment
- Reorganize everything

### **Threats**

- Budget shortfall from state revenue
- Competition from private institutions such as Ashford
- Remaining competitive in a changing external environment
- Economy in general
- Unrealistic benchmarks (changing ACCJC standards and Student Success Task Force)

# CHAPTER 7

## KEY PLANNING ASSUMPTIONS & STRATEGIC PRIORITIES

KEY PLANNING ASSUMPTIONS &  
STRATEGIC PRIORITIES





- Develop and implement a plan for infusing critical thinking into all aspects of the student experience.

**4. Economic, Workforce and Community Development**

SWC will contribute to the region’s economic revitalization through resources that support the expansion of local business and industry and by expanding programs that generate new and vital workforce and business development opportunities for students and community.

- Implement and maintain a College-wide Workforce and Business Development (WBD) Plan that promotes current SWC programs supporting economic, workforce and community development efforts and to identify new and emerging opportunities.
- Support the creation, retention and expansion of business and industry to contribute to the revitalization of the local economy.
- Increase the Cooperative Work Experience (CWEE) program and service learning practicum, internships and other related learning opportunities between SWC and regional industry and business.

Four additional strategic priorities were also developed to help the College strengthen itself as a public institution. Those additional strategic priorities are as follows, with the related goals and institutional objectives (bulleted items) that were created through the processes described above.

**1. Physical & Financial Resources**

SWC will act in a responsible, accountable and transparent manner in budget and financial matters, and will actively and ethically seek outside sources of funding in order to preserve financial solvency. SWC will provide that the College’s design and infrastructure meets the evolving needs of all students, faculty, and staff and community in support of an innovative learning environment.

- Establish and provide financial information systems that are transparent and easily accessible in support of the budget development process.
- Maximize utilization of existing facilities and develop new facilities based on ever-changing student learning needs, emerging technologies, Governing Board goals and the SWC Strategic Priorities.

**2. Organizational Effectiveness**

SWC will provide effective implementation of organizational goals/strategies by cultivating and sustaining processes, systems and culture that support optimal organizational structure, capacity and capability. SWC will meet the evolving needs of students, faculty, staff and community in support of an innovative learning environment.

- Promote and sustain a culture of evidence based on data-driven decisions that support continuous improvement efforts and student success.
- Support, promote and sustain shared planning and decision making through the Shared Consultation Council (SCC) as the central point of constituency review and approval of institutional infrastructure processes.
- Review and update College District policies and approve procedures for such policies with constituency input.



7. Industry sectors with the largest share of employment in the service area include health care and social assistance, retail trade, educational services, finance, and professional/scientific services.
8. The fastest growing sectors in San Diego County are projected to be health care support occupations, health care practitioners and technical occupations.
9. The largest numbers of new employment opportunities by occupation are expected to be for registered nurses, medical secretaries, licensed practical and licensed vocational nurses.

Across campus in recent years there has been an increased workload in all areas in order to meet ACCJC standards. More support to address ACCJC standards may be needed to maintain the College's accreditation standing.

To prepare for the consideration of new strategic priorities, goals and objectives, in spring 2011 the Governing Board articulated a set of goals, which were as follows:

GOAL 1: Ensure restoration of full accreditation status and continue to use accreditation standards to guide strategic planning and operations.

GOAL 2: Continue development of integrated data systems that provide information for measurable student success that support college operations, and institutional decision-making. Build a culture of evidence.

GOAL 3: Ensure that the College District budget effectively addresses the current fiscal crisis and provides fiscal stability to maintain instructional, student support, and operational integrity.

GOAL 4: Ensure a state-of-the-art teaching, learning, and work environment, including but not limited to technological advancements.

GOAL 5: Taking into consideration anticipated severe budget reductions, develop a plan to prioritize the SCCD focused Mission for the determination of resource allocation.

GOAL 6: Optimize resources and generate revenue for and through programs, partnerships, and grants.<sup>46</sup>

To ensure that the College's strategic priorities were advanced, in spring 2011 the Superintendent/President committed to the following goals and objectives:

- **Improve Culture and Climate**
  - Create mutual trust and respect as professionals, reflective of an institution of higher learning.
- **Ensure Student Access to Success**
  - Strengthen inter-segmental alliances to ensure college, transfer and career preparation for all students.
- **Improve Institutional Effectiveness**
  - Establish organizational structures and systems that support teaching & learning.
- **Improve Institutional Advancement**
  - Maximize Southwestern College as a community capacity builder.<sup>47</sup>

<sup>46</sup> SWC Governing Board *Institutional Goals*. April 7, 2011 Study Session  
<sup>47</sup> SWC Superintendent/President Goals and Objectives June 9, 2012

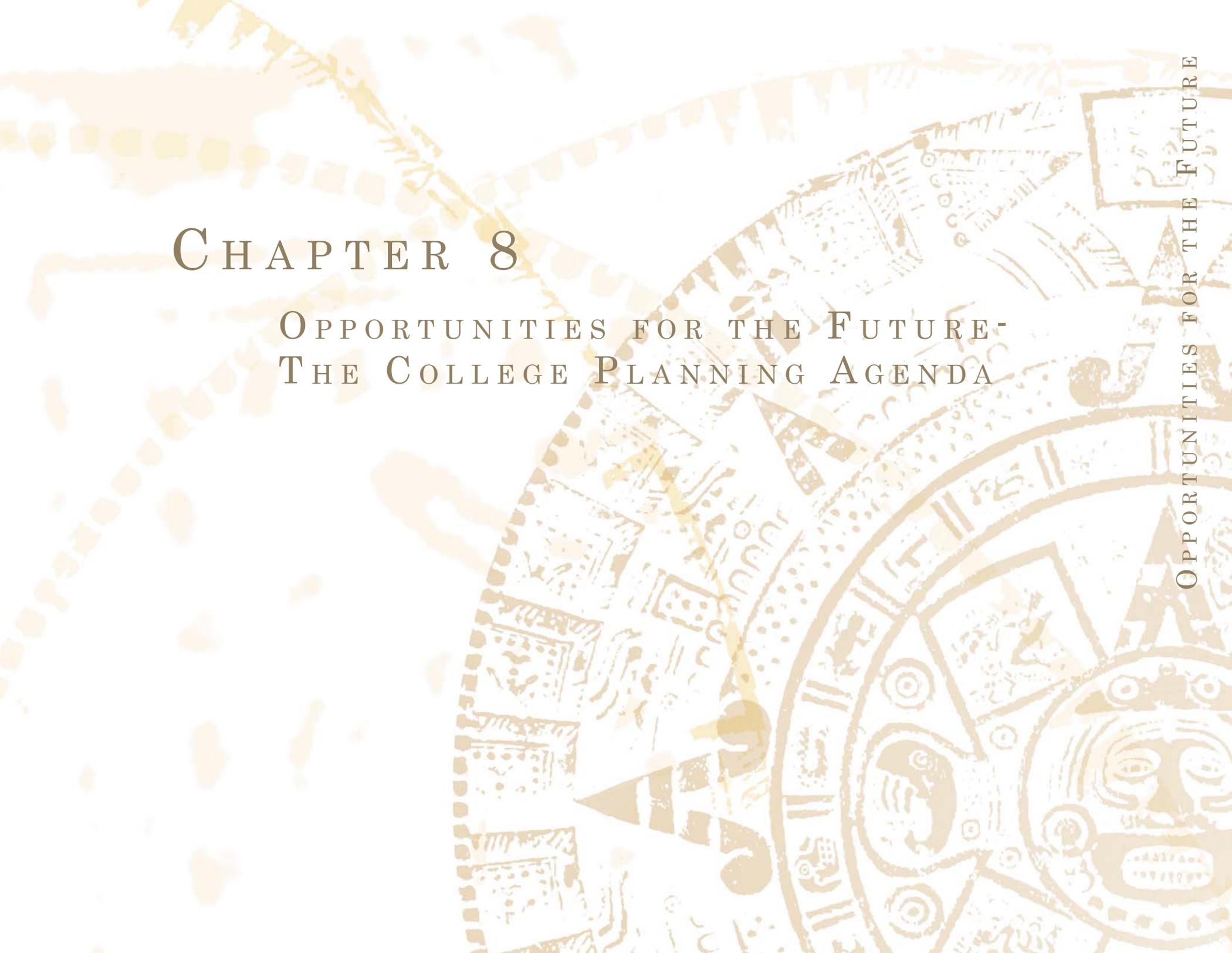
To monitor the implementation of the goals and institutional objectives the College will continue to rely upon program review, various institutional documents and annual reports of progress by the standing committees of the Shared Consultation Council and other work groups organized around the priorities. These efforts identify action items, discuss the status of each item, provide evidence and a timeline for completion and list a contact person. If applicable, a rubric or measurement used is provided.

Also, annually each unit or discipline at the College prepares a Snapshot form as part of a comprehensive program review or as a separate document that identifies accomplishments. Some of these accomplishments are directly tied to the strategic priority goals and objectives and needs of the discipline or unit. Identified needs flow to a school dean or unit director who prioritizes them and forwards them to their division Vice President who prioritizes the needs of all offices and departments in their area and forwards that prioritized list to the Institutional Program Review Committee (IPRC). The IPRC divides the prioritized lists into subject areas and forwards those divided lists to the appropriate standing committee of the SCC for additional prioritization. Those committees have members who become experts in a functional area of the College so that they can prioritize all of the requests and create a listing of the top 20 requests.

Each prioritized list is forwarded to the SCC from each standing committee to be integrated and prioritized prior to a review by the President’s cabinet. That prioritized listing is forward to the Superintendent/President and then the College cabinet. Simultaneously, the College Budget Committee identifies funding sources and provides recommendations for allocating limited resources as a means to “close the loop” in the program review process. As opposed to the primary budget development and resource allocation process that builds the College’s base

operating budget, the SCC’s prioritization process is intended to seek the allocation of any excess dollars remaining in the College budget for discretionary spending purposes. In recent years there have been few, if any discretionary dollars available.





# CHAPTER 8

## OPPORTUNITIES FOR THE FUTURE- THE COLLEGE PLANNING AGENDA



# Opportunities for the Future- The College Planning Agenda

## A. Future Labor Markets

The U.S. Chamber of Commerce has estimated that 90% of future jobs will require some form of postsecondary education. In a recent report the Chamber noted that outside the top three states, in which about 70% of first-time freshmen finish a degree in six years, statewide completion rates at four-year public colleges typically hover around 50%. In 17 states, less than half of all first-time, bachelor's degree-seeking students complete a degree within six years. Completion rates for two-year colleges are even worse; just one state has a statewide graduation rate greater than 50%. Thirty-three states have two-year completion rates at or below 25%; in 13 states, less than 15% of students who start at two-year colleges graduated within 150% of normal time to degree.<sup>48</sup> The U.S. Department of Labor has estimated that one-third of future jobs will demand skills in the science, technology, engineering and mathematics (STEM) disciplines. The U.S. government estimates that there are 3.7 million open jobs in the U.S. economy.<sup>49</sup> Amid this total there is a well-documented national shortage of individuals with engineering and computer science skills. Unemployment in computer-related occupations has fallen to just 3.4 percent, or less than the traditional rate for "full employment."<sup>50</sup> And most available analyses indicate that this shortage is going to get worse. As one recent study predicted, between 2010 and 2020, the American economy will annually produce more than 120,000 additional computing jobs that will require at least a bachelor's degree,<sup>51</sup> but the country's higher education system is currently producing only

40,000 bachelor's degrees in computer science annually.<sup>52</sup>

The Public Policy Institute of California (PPIC) has pointed to a mismatch between the level of education the future population is likely to possess and the level of education that will be demanded by the future state economy. In their analysis the supply of college-educated workers will not meet the projected demand. These estimates portend an opportunity for the College to contribute to the economic vitality of the society and to secure future employment for its graduates. In this longer-term view to 2025, the two industries with the greatest growth (state and local government and health care and social assistance) both require a significant portion of the prospective employees to be college educated. Collectively, those occupational areas where 60% or more of the individuals employed must have a college degree are anticipated to represent 29% of the workforce in California. Some of the details from the PPIC analysis are illustrated in the two ensuing tables.

48 U.S. Chamber of Commerce. *Leaders and Laggards: A State by State Report Card on Public Postsecondary Education*. June 2012

49 U.S. Bureau of Labor Statistics. *Job Openings and Labor Turnover*, July 2012. Retrieved November 21, 2012 from <http://www.bls.gov/news.release/pdf/jolts.pdf>.

50 U.S. Bureau of Labor Statistics. *Labor Force Statistics from the Current Population Survey*. Retrieved November 20, 2012 from <http://www.bls.gov/web/empsit/cpseea30.htm>.

51 U.S. Bureau of Labor Statistics. *Occupational Employment and Job Openings Data, Projected for 2010–2020*. Retrieved November 20, 2012 from <http://www.bls.gov/emp/>.

52 Integrated Postsecondary Education Data System from the U.S. Department of Education's National Center for Education Statistics (NCES). Retrieved November 21, 2012 from <https://webcaspar.nsf.gov>.





Several leading occupations can be identified that will require educated workers in the future if the entire state economy is considered with a focus on the high demand/high wage STEM occupations. The occupational family with the greatest projected demand that commonly requires an Associate Degree for entry is health care. The family of jobs that support health care is the second largest group, followed by computer and math science, and engineers and technicians. Students educated in these fields will have the most opportunities for relocating to areas throughout the State where there will be more available jobs.

Where the California Jobs Will Be in 2018 (in thousands of jobs)

Occupation Group	Occupation	Some College	%	Associate Degree	%	Bachelor's Degree	%	Total
STEM	Computer & Math Science	89	16%	45	8%	242	44%	545
STEM	Architects & technicians	13	20%	9	14%	25	38%	65
STEM	Engineers & technicians	34	11%	28	9%	141	44%	317
STEM	Life and Physical Scientists	9	6%	6	4%	45	32%	140
STEM	Social Scientists	5	6%	3	4%	27	33%	82
Healthcare	Healthcare Practitioners	109	13%	160	19%	239	29%	836
Healthcare	Healthcare Support	148	33%	51	11%	49	11%	448

Source: Carnival, Anthony; Smith, Nicole; and Strohl, Jeff (2010). Help Wanted: Projections of Jobs and Educational Requirements Through 2018. Center on Education and the Workforce, Georgetown University.

These state and regional highlights of occupations for the future provide opportunities for those students willing and able to relocate. There are opportunities for students with different levels of education from industry certification to an associate degree or a bachelor's degree. As noted below, there are some future employment opportunities in the local county economy as well. The California Employment Development Department (EDD) developed the labor market information below through surveys they conducted with business and industry. That work was completed in 2007 for the ten-year projection (2008-2018). At the time neither the survey nor respondents nor the officials at EDD could have anticipated the depth of the recession that started in 2008 or the protracted nature of the recovery with particularly severe consequences to state and local government employment. While the economy is recovering, it has been a relatively "job-less" recovery with more employment growth in the private sector than in public sector jobs. The projections that follow should be interpreted with this caveat in mind.

Through the year 2020, the California Employment Development Department (EDD) expects the fastest growing industry sectors in the State to be professional and business services, education services (private), health care and social assistance, leisure and hospitality, and retail trade. The professional and business services sector is expected to have an annual growth rate of about 2.3%. About 60% of the job growth in this sector is projected to occur in: (1) employment services; (2) management, scientific, and technical consulting; and (3) computer systems design and related services. Within health care the fastest annual growth is expected in nursing and residential care facilities (3.1%). Social assistance is expected to grow annually at 3% while private education is anticipated to grow at 2.9% annually. The U.S. Census indicated that the California population aged 65 years and over increased 18.1% between 2000 and 2010, compared to the State's total

population growth of 10%. The population of people 85 years of age and over increased 41.2% during that time. As the population grows and demographics change, the demand for workers in private educational services, health care, and social assistance sectors will remain high.

Leisure and hospitality is the third largest growing industrial sector in the State. The two largest industry subsectors are food services (annual growth of 2.9%), drinking places, and accommodations (annual growth of 2.2%). Recent expansion of California's theme parks is expected to preserve the State's standing as a top tourist destination. The retail trade sector is projected to add 333,600 jobs by 2020. General merchandise stores and food and beverage stores dominate this industry sector.<sup>53</sup>

53 California Employment Development Department, Labor Market Information Division. *California Industry Employment Projections 2010-2020*. Retrieved November 23, 2012 from <http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=145>





Within San Diego County the EDD projections for 2008-2018 suggest that the industries that will account for 69 percent of the job growth are: (1) Education Services, Health Care and Social Assistance (28,400 new jobs); (2) Professional and Business Services (24,000 new jobs); (3) Government (21,100 new jobs); and (4) Trade, Transportation, and Utilities (16,400 new jobs). The fastest growing nonfarm industry sector (based on growth rates) is Education Services, Health Care and Social Assistance (20.7%). Both Construction (18.9%) and Professional and Business Services (11.2%) sectors will outstrip the County's 10 percent growth rate. Population increases and the aging of the population drive both the growth in Health Care and Education employment. The growth projected in construction is related to government stimulus investments. However, as the economy recovers, delayed projects are expected to resume. EDD anticipates just over 476,900 job openings will materialize between 2008 and 2018.

The 50 occupations with the most openings are forecasted to generate almost 237,200 jobs. That is about 50% of all job openings in San Diego County through 2018. The top three occupations are Retail Salespersons, Waiters and Waitresses, and Cashiers. The median wage for these occupations ranges from \$9.10 to \$10.06 per hour and entry does not require postsecondary education. Approximately 14% of the occupations on the list of occupations with the most openings will require an Associate Degree for entry. These include registered nurses, general and operational managers, and accountants and auditors.

The 50 fastest growing occupations in San Diego County are expected to grow at 1.9 percent or more. Approximately 20 percent of the fastest growing occupations in the County are construction jobs. An Associate Degree is required for 26 of the

fastest growing occupations and half of those are in health care.<sup>55</sup>

The EDD has projected that approximately 47000 job openings will be available in San Diego County each year between 2008 and 2018. Only 10% of these jobs are normally available to candidates who have completed an Associate Degree or some form of postsecondary vocational education. Preparation at the Bachelor's Degree level, which could begin at the community college, is the most common entry path for another 18% of these occupations.<sup>56</sup>

55 State of California, Employment Development Department "San Diego County Projection Highlights, 2008-2018" Labor Market Information Retrieved August 29, 2012 from <http://www.labormarketinfo.edu.ca.gov>

56 State of California Employment Development Department, "Occupational Projections for San Diego County 2008-2018" Labor Market Information Retrieved August 17, 2012 from <http://www.labormarketinfo.edu.ca.gov>

56b SDIC. Region at Work. Retrieved November 6, 2012 at <http://www.gccd.edu/sdic-regional-consortium/Doing%20What%20Matters.html>

### San Diego County Occupational Projections 2008-2018

Entry-Level Education	2008-2018 Annual Openings	% of Annual Openings
Bachelor's Degree + work experience	2,107	4%
Bachelor's Degree	6,641	14%
Community College Experience		
Associate Degree	2,227	5%
Postsecondary Vocational Education	2,175	5%
Graduate education	2,477	5%
On-the-Job Training only	31,439	67%
<b>Total</b>	<b>47,066</b>	

Source: California Employment Development Department, Labor Market Information; analysis by Cambridge West Partnership, LLC

The San Diego Area Council of Governments, SANDAG, has been following industry activity in the County since the late 1990s. In December 2012, SANDAG published a report on the thirteen key traded industry clusters that represent 27% of the region’s total employment and offer higher wages than the regional average.<sup>57</sup> Traded industry clusters are groups of interrelated, export-oriented industries that bring new money into the region. Industries within the cluster commonly have business transactions with one another, participate in associations fostering collaboration and exchange of knowledge, but also compete for market share and stimulate productivity and innovation. All of the clusters are economic drivers as they are export-oriented.

Several industrial clusters have some businesses located within the College service area. The Aerospace, Navigation, and Maritime cluster has some concentration in National City and Chula Vista. The Biomedical Devices and Products cluster has a modest presence in National City. Highlights of recent employment and average annual wages are illustrated below. The Information and Communications Technologies cluster has some presence in Chula Vista. The Specialty Foods and Microbreweries cluster includes a few businesses that are located in Otay Mesa. However, on the whole the south suburban area, or the College service area, has only 5.4% of the jobs represented by all of these clusters in 2010. The SANDAG report placed three industries on a “watch list” for future growth: (1) e-security/cyber security; (2) musical instrument manufacturing; and (3) maritime industries. The report also noted that venture capital funding was flowing into the San Diego biotechnology and software industries.

57 SANDAG. *Traded Industry Clusters in the San Diego Region*. December 2012.

Recent employment and annual average wage trends for the thirteen traded industry clusters discussed in the report are noted in this table.

Traded Industry Clusters in the San Diego Region X

Traded Industry Cluster	No. of employees 2008	No. of employees 2009	2010		2008-2010	
			No. of employees	Annual Average Wage	Gain/Loss	% Workforce Change
Action sports manufacturing	4,561	4,378	4,177	\$65,300	-384	-8.00%
Advanced precision manufacturing	4,692	4,544	4,416	\$51,800	-276	-6%
Aerospace, navigation and maritime tech	30,998	31,794	32,099	\$79,300	1,101	4%
Apparel manufacturing	3,297	2,909	2,870	\$30,400	-427	-13%
Biomedical devices and products	9,901	9,886	12,012	\$99,500	2,111	21%
Biotechnology and pharmaceuticals	18,868	13,598	22,636	\$107,000	3,768	20%
Cleantech	7,314	7,570	7,986	\$87,400	672	9%
Entertain and hospitality	149,654	148,839	149,352	\$21,800	-302	0%
Fruits and vegetables	4,649	4,031	4,241	\$26,900	-408	-9%
Horticulture	6,765	5,961	6,013	\$29,100	-752	-11%
Information and communications tech	73,976	72,750	72,043	\$94,400	-1,933	-3%
Publishing and marketing	13,328	12,216	11,848	\$56,600	-1,480	-11%
Specialty foods and microbreweries	1,844	1,695	1,717	\$43,500	-127	-7%
<b>Traded Industry Cluster Total</b>	<b>329,847</b>	<b>325,171</b>	<b>331,410</b>	<b>\$56,000</b>	<b>1,563</b>	<b>0.5%</b>
<b>Regional Total</b>	<b>1,309,300</b>	<b>1,240,900</b>	<b>1,233,300</b>	<b>\$50,700</b>	<b>-76,000</b>	<b>-6%</b>

Source: SANDAG. Traded Industry Clusters in the San Diego Region. December 2012



### California Community College Centers of Excellence

The Centers of Excellence is a workforce research initiative of the California Community Colleges' Economic and Workforce Development unit. The Centers of Excellence, in partnership with business and industry, deliver regional workforce research customized for community college on high growth, emerging, and economically critical industries and occupations and their related workforce needs. The Centers are strategically located to study the regional economies of California and produce industry-validated environmental scan reports designed to enable community colleges to remain relevant and responsive in their offerings. Several of the studies produced in the last two years by the Centers are highlighted below as a way to provide the College with some insights regarding potential opportunities for new instructional programs or workforce development initiatives.

### The Region at Work

The San Diego-Imperial Regional Community College Consortium (SDIC), in cooperation with the Center of Excellence for the region, developed a short fact sheet in spring 2012 to highlight the regional labor market.<sup>60</sup> Looking forward to 2014 the fact sheet described the largest employment gains to come from the professional, scientific and technical services sector (13,700 jobs) and the health care services sector (12,000 jobs). Manufacturing industries were characterized as a vital component of the region's biotechnology economy.

Professional, scientific and technical services industries represent more than 198,000 jobs in the San Diego economy. Through 2014 the largest job gains are projected for management, scientific, and technical consulting services. Major San Diego employers in this sector include: (1) Premier Inc. (1,500 jobs); (2) General Atomics (1,300 jobs); (3) Burnham Institute (1,000 jobs); and EDAW Inc. (1,000 jobs).

<sup>60</sup> Centers of Excellence. *Regional Labor Market Profile-San Diego-Imperial Region: Region At Work*. 2012

### San Diego Industry Spotlight: Professional, Scientific and Technical Services

Industry Sector	2011 Jobs	2014 Jobs	Change %	Change	# of Establishments
Management, Scientific & Technical Consulting Services	34,342	39,433	5,091	15%	3,479
Scientific Research & Development Services	33,604	36,418	2,814	8%	915
Computer Systems Design & Related Services	26,758	28,740	1,982	7%	2,119
Architectural, Engineering & Related Services	28,913	30,139	1,226	4%	1,700
Total	123,617	134,730	11,113	9%	8,213

Source: SDIC. *Region at Work*. Spring 2012



Within the health care services sector, the opportunities listed below have potential for growth and generally require some college education or an Associate Degree or above. The largest growth is anticipated to be in these occupations: (1) registered nurses; (2) medical secretaries; (3) medical assistants; (4) nursing aides and attendants; (5) home health aides; (6) physicians and surgeons; and (7) licensed practical or vocational nurses. The fastest growing occupations in health care include: (1) home health aides; (2) physician assistants; (3) physical therapists; (4) medical assistants; (5) medical and clinical laboratory technicians; (6) personal and home care aides; and (7) registered nurses.

The manufacturing industry sector accounts for about 107,000 jobs in the San Diego-Imperial County region. Through 2014 employment is expected to increase by the greatest amount in navigational, measuring, electro medical and control instruments manufacturing. Some of the larger employers include: (1) Life Technologies Corp (1,400 jobs); (2) Amylin Pharmaceuticals Inc. (800 jobs); (3) Medimpact Health Care Systems (450 jobs); and BD Biosciences (400 jobs).

### San Diego Industry Spotlight: Manufacturing

Industry Sector	2011 Jobs	2014 Jobs	% Change	# of Establishments
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	9,605	10,748	12%	189
Pharmaceutical and Medicine Manufacturing	5,373	6,008	11%	108
Medical Equipment and Supplies Manufacturing	6,480	6,922	7%	206
Metalworking Machinery Manufacturing	1,343	1,574	17%	49

Source: SDIC. Region at Work. Spring 2012



From March to August 2011 a scan of real-time job opening announcements revealed that San Diego had 725 openings out of 8,375 posted vacancies. The top employers in San Diego included Qualcomm, CyberCoders, Activision, and Bsquare Corporation. The 57 San Diego employers who participated in the survey indicated that they planned to add 536 additional jobs between 2011 and 2012 for an 18.2% growth rate. The two occupations that were expected to create the most jobs are project managers and programmers and/or applications developers while the fastest growth occupations were anticipated to be web developers and project managers. Employers indicated they were having difficulty hiring web developers, computer support specialists and software engineers.<sup>61</sup>

### Social Media in California

Throughout California there are over 30,000 job openings projected in four social media occupations over the next five years. The emergence of social media has impacted the workforce in terms of how communications are conducted with clientele and how new business is generated. The jobs in this area cross several industries and occupations, but four occupations in particular have been profoundly impacted: (1) public relations; (2) marketing and media communications; (3) business development, sales and advertising; and (4) social media management. A study by two Centers of Excellence examined labor market data, job postings, secondary research materials, and conducted an employer survey. While employers are interested in ways to upgrade current employees, the offerings at community colleges are sparse. Public relations specialists are expected to experience the highest growth rate with an estimated 11% gain, which is about 8,000 new and replacement jobs throughout the state. The number of projected openings in San Diego represents roughly 9% of the statewide expectations.

<sup>61</sup> Centers of Excellence. *Mobile Media Occupations in California*. March 2012

### San Diego/Imperial Social Media Job Openings Projections

Occupation	San Diego/Imperial Job Openings 2011-2016	5-Year Projected Growth Rate
Sales representatives, services	1,716	7%
Public relations specialists	702	10%
Advertising sales agents	187	3%
Media and communication workers	175	7%
Advertising and promotions managers	108	3%
<b>Total</b>	<b>2,888</b>	

Source: Centers of Excellence. *Social Media in California*.



The Centers of Excellence staff was unable to locate any certificate or degree programs in social media among the community colleges. However, a model curriculum was identified at San Francisco State University <http://www.cel.sfsu.edu/socialmedia/certificate.cfm>, Bucks County Community College in Pennsylvania <http://www.bucks.edu/academics/coned/allcourseofferings/workplc-pro-skills/cert-soc-media-biz/>, and University of San Francisco <http://www.usanfranonline.com/online-courses/social-media-training.aspx>.

The majority of employers surveyed would prefer a one-day workshop for their employees; however, 51% indicated support for a certificate program, 40% would support a semester-long course and 29% would want to see a degree program developed in this discipline. The study authors suggested that colleges considering a response to social media should consider embedding social media into existing programs; determine if there is a need for professional certification; and create courses that might be offered as skills to upgrade training, perhaps through contract education to employers.<sup>62</sup>

**Solar Industry and Occupations: Distributed and Utility-scale Generation**

Both the mayors of Chula Vista and San Diego have publically committed themselves to supporting green energy in the region. Chula Vista in particular has pledged to develop future growth of the city in a sustainable way.<sup>63</sup>

Two Centers of Excellence collaborated in 2012 to complete an environmental scan on the Solar Industry and Occupations: Distributed and Utility-Scale Generation.<sup>64</sup> Distributed solar is

62 Centers of Excellence. *Social Media in California*. February 2012  
 63 City of Chula Vista, Growth Management Oversight Commission. *2012 Annual Report*. June 7, 2012  
 64 Centers of Excellence. *Solar Industry and Occupations: Distributed and Utility-scale Generation*. February 2012

small-scale, decentralized energy generation located at or near the point of end use, while utility-scale solar includes large-scale generation projects that provide greater than one megawatt of electricity feeding into the transmission grid and supplying energy to utility companies. The study involved a survey of employers and community colleges, labor market data analysis and interviews.

The authors of the study found that 2,000 solar firms in the State employed close to 50,000 workers and that as the industry continues to expand. The industry will add between 18,000 and 24,000 jobs over the next three years. Most employment opportunities in the distributed solar field are installation workers. That workforce is expected to grow between 8,000 and 10,000 jobs by 2015. Employment in utility-scale solar is primarily short-term construction jobs. Just fewer than 60% of the firms in the industry provide installation services; 26% of the firms engage in wholesale trade or distribution of energy, while a scant 18% of the firms are manufacturing solar items.

The majority of employers reported particular difficulty in hiring water or pool heating installers, sales and marketing occupations, and cost estimators. Presently there are 54 community colleges offering some type of solar training. Within the San Diego/Imperial County region four colleges offer solar programs (Imperial Valley, Mira Costa, Miramar, and San Diego City). Collectively, these programs appear to have adequately addressed the demand for solar photovoltaic installers. However, there are some skill mismatches and colleges were advised to consider the following.

- Expand the knowledge area of programs to include other solar occupations such as solar thermal installers and sales representatives/estimators.
- Strengthen partnerships with employers to develop intern-



### Water/Wastewater Occupations in Southern California

In fall 2011 two Centers of Excellence completed an environmental scan of occupations in the water and wastewater industry in seven Southern California Counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura). Largely due to upcoming retirements, employers anticipate having to replace 3,400 employees in seven occupations or roughly 18% of the current workforce.

Water and wastewater industries primarily involve the collection, distribution, treatment, and conservation of water. Whereas water systems are responsible for providing and distributing clean water to businesses and homes, wastewater systems are responsible for collecting and treating sewage and runoff water that can be cleaned and possibly reused. The growth in the seven key occupations for which community college education would be most appropriate is illustrated in the following table.

#### Southern California Water and Wastewater Key Occupations Growth

Occupations	2011 Jobs	2014 New and Replacement Jobs	Growth Rate
Water Treatment Operator	2,653	506	19.1%
Water Distribution Operator	4,059	958	23.6%
Wastewater Treatment Operator	3,399	663	19.5%
Wastewater Collections Operator	2,551	457	17.9%
Mechanic/Machinist	3,116	891	28.6%
Electrician/Electrician Technician	1,344	504	37.5%
Electronic Maintenance Technician/Instrument Technician	1,256	391	31.1%
<b>Total</b>	<b>18,378</b>	<b>4,370</b>	<b>23.8%</b>

Source: Centers of Excellence. Water and Wastewater Occupations in Southern California. November 2011

In response to a survey, employers indicated that they had the most difficulty in hiring electronic maintenance technicians and industrial engineers. Water quality analyst and water conservation specialist were two emerging occupations that were identified through the environmental scan. Thirty-seven percent of the firms reported that they employ water quality analysts and 55% of the firms stated they employ water conservations specialists.

The College may want to explore the possibility of an instructional program in these occupational fields; however, water/wastewater programs do exist at Palomar College, Cuyamaca College and Imperial Valley College.<sup>66</sup>

### Cyber Security Occupations

In 2012 the Center of Excellence for Los Angeles and Orange Counties completed an environmental scan focused on the occupations related to cyber security. The field represents both an employment opportunity in the private sector but also employment related to homeland security. The Center for Strategic and International Studies estimates that there are about 1,000 security specialists in the United States who have the specialized skills to operate effectively in cyberspace; however, the United States needs about 10,000 to 30,000 such individuals. The College might want to ask the Center of Excellence staff for San Diego and Imperial Counties to replicate the 2012 study as the economy of San Diego is supported by extensive military and defense contracting firms that would have a natural interest in cyber security.

The completed environmental scan encouraged community colleges to:

1. Consider adding courses in cybersecurity to their computer science programs.
2. Create new Certificates or Degrees in cybersecurity.
3. Make sure that their programs and curriculum include the skills listed for cybersecurity occupations in this report.
4. Include representation from cybersecurity employers on advisory committees to be aware of new trends to keep programs up to date.
5. Contact CyberWatch West3, a valuable resource for curriculum development, partnership with businesses, and services to students.
6. Coordinate with other colleges in the region to avoid duplication of efforts and possible competition.
7. Organize internships and opportunities for their students to gain hands-on experience.

Cyber security professionals do not have specific occupational titles but are included in the broader information technology titles listed below.

- Computer and information systems managers
- Computer programmer
- Computer software engineers, applications
- Computer software engineers, systems software
- Computer support specialists
- Computer systems analysts
- Database administrators
- Network and computer systems administrators

<sup>66</sup> Center of Excellence. *Water and Wastewater Occupations in Southern California*. November 2011.

- Network systems and data communications analysts
- Computer specialists, all other

The environmental scan concluded that job growth for these occupations is being driven by three important factors:

1. Security concerns and the need to protect information and data due to the complexity of devices, systems, networks, applications, and users.
2. The need to operationalize security as both government and business move towards proactive, as opposed to reactive security.
3. The government's requirements of due diligence and a longer-term strategy as government regulations are forcing organizations to evaluate and modify their business processes and operations with security in mind.<sup>67</sup>

On-the-job training is the means by which the most common occupations in the support cluster of the agriculture value chain are accessed. However, the support cluster employs the largest number of workers. Occupations in the production cluster are largely in decline as machinery has replaced human labor in many aspects of this cluster over the last decade. The occupations with the greatest numbers of employees in the processing and packaging industries and the distribution portions of the agriculture value chain are exclusively available through on-the-job training. The opportunities for employment and the annual average wages vary both among the clusters as well as by region throughout the state.

### **Agriculture Value Chain Occupations**

The Center of Excellence for the Central Valley completed an environmental scan on the California agriculture value chain in 2011. The agriculture value chain is actually comprised of four industry clusters: (1) support; (2) production; (3) processing and packaging; and (4) distribution. Throughout the state there are 2.5 million individuals employed in over 800 job titles within the agriculture value chain. Highlights about the food manufacturing and distribution industry in the San Diego region, discussed in a 2010 study conducted by the South County Economic Development Council and SANDAG, are outlined below.

<sup>67</sup> Center of Excellence. *Cyber Security Occupations in Los Angeles and Orange Counties*. June 2012.



As noted earlier in this Plan, the maritime industry group is a major driver in the San Diego economy as more than 1,400 companies that produce over \$14 billion of direct sales employ a workforce of almost 46,000 in the industry group. Of those 46,000 employees, approximately 8,000 work in traditional, exclusively maritime industries, approximately 19,000 work in technology-oriented businesses, and about 18,700 work in industries that include maritime activities but are not exclusively maritime industries. The industry group is a mix of the tradition and the fast-growing technology-oriented sectors. All economic activity having to do with oceans, seas, harbors, ports and coastal zones is included in the study. Based on the research, the study projected total employment growth between 2011 and 2020 to be nearly 6,000 new jobs or 12 percent of the current workforce.

Employers indicated that they favored their own internal training programs over external programs and cited industry-specific skills more than crosscutting work skills as the greatest deficiency among job candidates. These observations suggest that there may be opportunities for the College to partner with employers in workforce development education initiatives offered as contract education. Approximately 85 percent of the employers were not familiar with existing workforce development programs.

Clear patterns emerged from the study with respect to the most critical occupations for the industry. The pattern represents a bifurcation between high-paying jobs, some of which require extensive education, and other high-paying jobs that do not require a bachelor's degree. These occupations were among the most critical and difficult to fill.



The study suggested these strategies to address the issue of finding qualified talent with maritime knowledge and experience:

1. Insert maritime-specific modules into existing courses
2. Create specialized elective courses that focus on maritime-related topics within a variety of programs of study
3. Sponsor after-school activities
4. Fund maritime internships
5. Promote work-study programs

The Maritime Alliance is in the process of organizing sector workgroups that will identify workforce needs. Once identified the working groups will seek to engage secondary vocational programs, community colleges and four-year institutions for help in adopting or designing curricula and programs. Already both the fishing industry and the shipyards have identified needs that should be in the general responsibility of SDWP and fit the mandate of high school career centers and community colleges. The report contains a series of career pathway graphics that might be useful to the College.<sup>70</sup>

**Community Clinics in San Diego: A Review of Workforce Issues**

In fall 2011 the SDWP commissioned a study of community health care clinics in San Diego as their needs are rarely addressed in the mainstream health care literature. The study included secondary data and interviews with executives and staffing managers from the clinics throughout the County. The findings revealed significant foundational skills gaps in reading, writing and math among the

<sup>70</sup> Maritime Alliance, San Diego Workforce Partnership, and San Diego Regional Economic Development Corporation. San Diego Maritime Industry Report. 2012

frontline workforce of medical assistants, even among native English speakers. The allied health occupations provide a wide range of diagnostic, therapeutic, and technical services in support of health care delivery teams, and they are often the first line of contact with patients.

Job openings in allied health occupations are expected to grow by approximately 8% over the next three years due to growth and turnover in community clinics. Previous surveys of large health care employers reported that technical skills were most important, followed by customer service skills. However, the smaller community clinics rated technical skills third, after communication skills and critical thinking. Moreover, work readiness skills surpassed appropriate education and training in reported importance. Most employers participating in the survey noted the following as the greatest deficiencies of recent hires:

1. Communications skills (82% of the participants)
2. Demonstrated professionalism (73% of the participants)
3. Problem solving (64% of the participants)
4. Technical skill deficiencies (18%)

Despite an abundance of medical assistants, well beyond the numbers needed to meet demand, skill shortages remain among applicants for open positions (roughly 350-400 openings annually). Many of the 1,300 medical assistant graduates each year do not have any college-level education. The community clinics do not pay a wage that is competitive with other health care providers and therefore tend to hire high school graduates with some training, often from Regional Occupational Programs (ROP).



**Health Care IT Research Report**

In 2011 the University of San Diego Extension conducted a research effort on behalf of the SDWP for the purpose of exploring ways in which the Health Care Information Technology (HIT) cluster could be strengthened. HIT is the intersection of information science, computer science and health care. It deals with the resources, devices and methods used to optimize the acquisition, storage, retrieval and use of information in biomedicine and health.

The research concluded that San Diego is well ahead of much of the nation in electronic medical record (EMR) adoption, the backbone of HIT. The only area lagging in adoption is the smaller physician practices, where lack of incentives and financial/business risk, as well as reluctance to change traditional workflows, represent barriers. The opportunities presented by the use of medical devices and mobile or tele-health applications suggest the possibility of ways to shortcut the laborious conversion of existing processes associated with central databases or physical intermediaries. Federal legislation in 2009, the HITEC Act, contains timelines and incentives for hospitals and physicians to adopt EMRs. While the EMRs are one component of HITs, the regulatory requirements will put that component on the leading edge of a revolution with the health care industry.

The study found that HIT occupations could be categorized as follows:

- Digitization- jobs related to the capture, storage and security of information related to health care operations.
- Integration- jobs associated with the application of policy, standards, protocols, systems, exchange, protection and best use of patient and process information.

- Analytics- jobs involved with the organization, retrieval, application, adaptation and examination of medical and institutional information for the purpose of improving health care outcomes.
- Business Support- jobs and skill sets that are more general in nature, commonly organized as sales, administration, technical and business development.

Throughout the County there is a strong cadre of employees working within the digitization function. Most HIT workers in this category are found at large-scale health care systems or at consulting firms that provide these services. The types of jobs that fall into the digitization category are: data entry, technical software and user support, health information management specialists, implementation support specialists, data formatting, control and security positions, billing and coding technicians, and software and process trainers. Jobs in the other three categories are stable, but growing at a slower pace than those in digitization. All of the occupations identified require some post high-school courses and/or community college training or more. There is an abundance of HIT-related education in the San Diego region and the authors of the Health Care IT Research Report believe that the workforce is in an emergent stage since most of the job openings are in the digitization category.

One area of that is not well addressed yet is the education of software engineers and project managers who understand the clinical environment. The report recommended the creation of educational and development programs that supplement foundational training in either IT or clinical fields.<sup>72</sup> The College may want to consider ways to best prepare students for positions of jobs in the aforementioned digitization and integration categories.

<sup>72</sup> UC San Diego Extension. *Health Care IT Research Report*. 2011



A series of career ladder graphics is included as an appendix to the study. Among the 37 occupations studied these occupations had the greatest number of projected job openings:<sup>74</sup>

74 SDWP. Entertainment and Hospitality Industry Cluster Survey. June 2011.

San Diego Entertainment and Hospitality Occupations, Projections 2011 to 2012

Occupational Title	New Jobs	Turnover Openings	Total Growth	Median Hrly Wage*
Cashiers	2%	26%	28%	\$9.31
Chefs	0%	36%	36%	\$21.47
Choreographers	11%	11%	22%	\$18.02
Counter & Rental Clerks	2%	34%	36%	\$11.57
Dishwashers	2%	27%	29%	\$9.03
Hotel Desk Clerks	3%	20%	23%	\$10.97
Recreational Protective Service Workers	11%	12%	23%	\$13.18
Secretaries	9%	13%	22%	\$17.25
Security Guards	2%	16%	21%	\$11.42
Taxi Drivers and Chauffeurs	12%	21%	33%	\$10.47
*for experienced employees				

Source: SDWP. Entertainment and Hospitality Industry Survey

Almost all of these occupations are characterized as having more openings generated through employee turnover than new jobs being added.

**San Diego Military Contractors Outlook Report**

In 2011 the SDWP retained the BW Partnership to conduct a survey of 125 defense industry employers in the San Diego area because defense, defense related, and homeland security economic activity is one of the core drivers to the regional economy. The SDWP wanted to better understand the size and breadth of this economic cluster and its workforce preparation needs. Participating employers ranged from fewer than 25 employees (one-fourth of all firms) to 10% of the firms having 100 or more employees.

Collectively, the employers anticipated hiring enough new employees to represent a 7.3% growth between 2011 and 2012. Across the board, higher-skilled occupations make up the greatest percentage of the overall defense workforce. Scientific and technical support personnel are the largest occupational group, accounting for 1,800 jobs, among the military contractors in San Diego. Employers reported some or great difficulty in finding qualified applicants. The greatest deficiencies among applicants were reported to be technical competence, technical writing ability, and communications skills.



and are in demand throughout the state. Numerous manufactures commented on the need to have trade courses offered at both high schools and community colleges.

Many of the participants were unaware of the variety of business-assistance programs currently offered in San Diego County, such as tax credits for hiring qualified employees, and training dollars for customized training programs. Only 16 percent of those surveyed said they had forged a business relationship with a local educational institution. Twenty-six percent of the respondents indicated a desire to learn more about the variety of training programs available to them. In the future, forty percent of the companies (177) plan to expand their employment in San Diego.<sup>76</sup>

There may be opportunities for the College to provide some fee-based instruction or workforce preparation training to the manufacturing firms in the service area. An instructional program in CNC for machinists would be a costly investment and should not be undertaken lightly.

**Food Manufacturing**

In 2010 the SCEDC and the SANDAG Service Bureau staff conducted a study of the food manufacturing and distribution industry enterprises located in the Otay Mesa community (zip code 92154). A total of seventeen employer interviews were conducted to explore their business operations and workforce needs. In the larger San Diego region there are more than 550 firms engaged in the food manufacturing and distribution industry sector employing approximately 12,600 workers. Within Otay Mesa it is estimated that 38 firms specialize in this sector and employ more than 1,500 workers. Most firms in the South County area and in Otay Mesa specialize in wholesale food distribution.

<sup>76</sup> Cindy Gompers-Graves and Bradley Weinstein. *San Diego Regional Manufacturing Sector Report*. South County Economic Development Council. June 25, 2012

Some of those interviewed expressed concerns about finding qualified workers with experience in the industry in occupations such as quality control/quality assurance, cost accountants, and plant/equipment maintenance workers. Specific training needs that were mentioned include: FDA regulations, hazardous materials safety and general safety, first aid and CPR, and forklift operation certification. Some interest was also expressed in assistance with government contracting processes to help employers understand the requirements and expand their customer base.<sup>77</sup>

There may be opportunities for the College to provide some fee-based instruction for the food-manufacturing firms in the service area.

**B. Planning for Potential New Programs**

There are nine public community colleges located within San Diego County. Collectively, the nine community colleges, including Southwestern College, offer 1,520 instructional programs leading to degrees and/or certificates in fields of study described by the California Community College Chancellor’s Office Taxonomy of Programs (TOP) manual.<sup>78</sup> Before new instructional programs are implemented, care should be taken to analyze the existing programs offered by those institutions. For example there are 49 programs in the field of Office Technology/Office Computer Applications (TOP 051400) and 33 programs offered in the field of Child Development/Early Care and Education (TOP 130500) by the nine colleges.

<sup>77</sup> SANDAG Service Bureau. *Food Manufacturing and Distribution Industry Sector in Otay Mesa*. South County Economic Development Council. April 30, 2010

<sup>78</sup> California Community College Chancellor’s Office. Program Inventory Retrieved October 31, 2012 from <http://www.cccco.edu/ChancellorsOffice/Divisions/AcademicAffairs/inventoryofprograms>



The enactment of the Student Transfer Achievement Reform (STAR) Act, aka SB 1440, provided the College with an opportunity to “retool” some of its current transfer-oriented programs and to introduce new ones. The legislation requires a community college district to grant an associate degree for transfer to a student in his/her field of study once the student has met degree and transfer requirements for a particular major. Once the transfer associate degree is earned (awarded), the student is eligible to transfer with junior standing into a local California State University (CSU) campus. Students will be given priority when applying to a particular program that is similar to his/her community college field of study. The bill prohibits a community college district or campus from adding local course requirements in addition to requirements of the STAR Act, and prohibits the CSU from requiring a transferring student to repeat courses similar to those taken at the community college that counted toward their associate degree for transfer.

The statewide strategy to implement the STAR Act is to develop transfer-model curriculums (TMC) through inter-segmental faculty dialogue using the structure of the course identification numbering system (C-ID) as much as possible so that common course descriptions will be used as building blocks. The initial focus of the project is on the top transfer majors within the CSU. The goal is to reach agreements on a model curriculum that all community colleges could adopt for each particular major. As of fall 2012, twenty-two model curriculums have been approved.

Two TMC swere completed at the College and approved by the Chancellor’s Office: (1) Math; and (2) Communications Studies. In fall 2012 the College Curriculum Committee recommended five additional TMC model degrees, (1) Administration of Justice; (2) Political Science; (3) English; (4) Sociology; and (5) Physics. Four other TMCs have been pre-launched at the College or proposed to the Curriculum Committee: (1) Psychology; (2) Kinesiology; (3) Theater Arts; and (4) Music.

Another group of eight model curriculums are available for consideration: Anthropology, Art History, Business Administration, Computer Science, Early Childhood Education, Elementary Education (Liberal Studies), Geography, Geology, History, Journalism, and Studio Arts.<sup>79</sup> The SWC faculty is in discussion about these other models. In some cases there is a preference to wait for a TMC from SDSU because most students transfer to that institution. In the case of Early Childhood Education a decision has been made not to offer a transfer AA degree model. A complete analysis of the extent to which current College programs of instruction align with the 22 approved TMCs can be found in the appendices.

In an effort to identify new program areas that would meet labor market needs in San Diego County, an analysis was completed of the occupations expected to have 50 or more job openings

<sup>79</sup> Course Identification Numbering System for the California Community Colleges. SB1440 Update Retrieved December 6, 2012 from <http://www.c-id.net/degreereview.html>

annually through the year 2018. The list was filtered using the Bureau of Labor Statistics training-level definitions with a focus on those occupations requiring a Bachelor's or Associate Degree, some post-secondary vocational education, or long-term on-the-job-training of more than twelve months. Both the "some post-secondary education" and the "long-term on-the-job training" of more than twelve months might be experiences that culminate in a CTE certificate issued by a community college.

Those occupations that meet the criteria above were mapped, through the Standard Occupational Classification (SOC) codes and Taxonomy of Programs (TOP) codes, to Associate Degree and Certificate of Achievement instructional programs offered by the nine public community colleges in San Diego County. Because the occupations mapped to one or more TOP code used by the community college system, there can be multiple programs offered for each occupation. For that reason, some of the values in the "Reg X Total Pgms" column show a count in excess of the nine colleges in the study area. Some occupations, such as Accountants and Auditors in the first table, have multiple rows because the occupational SOC code is mapped to different TOP codes. In some occupations listed in the tables the inventory of authorized programs among the San Diego County community colleges did not contain a matching TOP code, such as the first occupation, Business Operations Specialists, All Other, located in the first table.

Each of the tables that follow should be studied to identify potential occupations for which a new instructional program might be designed. The most promising occupations are those with the highest number of projected annual average total jobs (fourth column in the tables), but the fewest number of established competitor programs and the smallest number of average annual awards 2007-08 to 2011-12 (final column on the right).

The first table on the next page identifies occupations in San Diego County commonly requiring a Bachelor's degree for which EDD has projected 50 or more annual job openings through the year 2018. Forty-one occupations meet these criteria. An initial course of study for these occupations might begin in a community college, and therefore, the transfer degree initiative may be a starting place for instructional programs that lead to these occupations.

San Diego County Occupations Commonly Requiring a Bachelor's Degree

SOC Code	Occupational Title	TOP	SOC to TOP6_ decimal	An Av Total Jobs	2010 Median Hourly	2010 Median Annual	Expected Preparation	Inv'try TOP Code	Reg X Total Pgms	Av An Awards 08 to 12
131199	Business Operations Specialists, All Other	059900	0599.00	523	\$29.93	\$62,266	Bachelor's Degree			
252021	Elementary School Teachers, Except Special Education	490120	4901.20	435	[6]	\$68,411	Bachelor's Degree	490120	6	23.5
132011	Accountants and Auditors	050200	0502.00	388	\$30.94	\$64,348	Bachelor's Degree	050200	18	178.8
132011	Accountants and Auditors	050210	0502.10	388	\$30.94	\$64,348	Bachelor's Degree	050210	1	67.0
252031	Secondary School Teachers, Except Special and Vocational Education	083700	0837.00	364	[6]	\$66,610	Bachelor's Degree			2.0
252031	Secondary School Teachers, Except Special and Vocational Education	083900	0839.00	364	[6]	\$66,610	Bachelor's Degree			
253099	Teachers and Instructors, All Other	089900	0899.00	205	N/A	\$49,158	Bachelor's Degree			
252022	Middle School Teachers, Except Special and Vocational Education	083700	0837.00	203	[6]	\$66,835	Bachelor's Degree			2.0
252022	Middle School Teachers, Except Special and Vocational Education	083900	0839.00	203	[6]	\$66,835	Bachelor's Degree			
151031	Computer Software Engineers, Applications	070200	0702.00	198	\$43.11	\$89,680	Bachelor's Degree	070200	8	41.0
151031	Computer Software Engineers, Applications	070600	0706.00	198	\$43.11	\$89,680	Bachelor's Degree	070600	4	6.5
151081	Network Systems and Data Communications Analysts	070100	0701.00	168	\$37.18	\$77,339	Bachelor's Degree	070100	2	3.3



SOC Code	Occupational Title	TOP	SOC to TOP6 decimal	An Av Total Jobs	2010 Median Hourly	2010 Median Annual	Expected Preparation	Inv'try TOP Code	Reg X Total Pgms	Av An Awards 08 to 12
271024	Graphic Designers	100900	1009.00	120	\$21.91	\$45,586	Bachelor's Degree	100900	2	2.0
271024	Graphic Designers	101300	1013.00	120	\$21.91	\$45,586	Bachelor's Degree	101300	1	7.0
271024	Graphic Designers	103000	1030.00	120	\$21.91	\$45,586	Bachelor's Degree	103000	13	38.3
172072	Electronics Engineers, Except Computer			115	\$47.33	\$98,438	Bachelor's Degree			
399032	Recreation Workers	011510	0115.10	112	\$10.69	\$22,244	Bachelor's Degree			4
399032	Recreation Workers	083520	0835.20	112	\$10.69	\$22,244	Bachelor's Degree	083520	7	48.6
399032	Recreation Workers	083560	0835.60	112	\$10.69	\$22,244	Bachelor's Degree			
399032	Recreation Workers	083570	0835.70	112	\$10.69	\$22,244	Bachelor's Degree			
399032	Recreation Workers	083600	0836.00	112	\$10.69	\$22,244	Bachelor's Degree	083600	5	5
399032	Recreation Workers	083610	0836.10	112	\$10.69	\$22,244	Bachelor's Degree	083610	5	
273031	Public Relations Specialists	060600	0606.00	111	\$24.91	\$51,824	Bachelor's Degree			3.0
131051	Cost Estimators	050100	0501.00	110	\$31.65	\$65,825	Bachelor's Degree	050100	12	96.7
131051	Cost Estimators	050500	0505.00	110	\$31.65	\$65,825	Bachelor's Degree	050500	12	341.0
131051	Cost Estimators	050600	0506.00	110	\$31.65	\$65,825	Bachelor's Degree	050600	15	51.1
131079	Human Resources, Training, and Labor Relations Specialists, All Other	051600	0516.00	106	\$32.66	\$67,934	Bachelor's Degree	051600	2	5.0
172199	Engineers, All Other	090100	0901.00	94	\$46.49	\$96,710	Bachelor's Degree	090100	12	14.8
151071	Network and Computer Systems Administrators	070100	0701.00	92	\$34.45	\$71,656	Bachelor's Degree	070100	2	3.3
151071	Network and Computer Systems Administrators	070730	0707.30	92	\$34.45	\$71,656	Bachelor's Degree			1.0
151071	Network and Computer Systems Administrators	070800	0708.00	92	\$34.45	\$71,656	Bachelor's Degree	070800	7	31.0
151071	Network and Computer Systems Administrators	070810	0708.10	92	\$34.45	\$71,656	Bachelor's Degree	070810	18	42.2



SOC Code	Occupational Title	TOP	SOC to TOP6_decimal	An Av Total Jobs	2010 Median Hourly	2010 Median Annual	Expected Preparation	Inv'try TOP Code	Reg X Total Pgms	Av An Awards 08 to 12
192041	Environmental Scientists and Specialists, Including Health	030100	0301.00	60	\$31.71	\$65,958	Bachelor's Degree	030100	1	12.0
192041	Environmental Scientists and Specialists, Including Health	030200	0302.00	60	\$31.71	\$65,958	Bachelor's Degree			
131081	Logisticians	051000	0510.00	58	\$37.65	\$78,308	Bachelor's Degree	051000	3	1.0
132099	Financial Specialists, All Other			58	\$27.97	\$58,187	Bachelor's Degree			
113051	Industrial Production Managers	050100	0501.00	55	\$40.20	\$83,623	Bachelor's Degree	050100	12	96.7
113051	Industrial Production Managers	050500	0505.00	55	\$40.20	\$83,623 B	achelor's Degree	050500	12	341.0
113051	Industrial Production Managers	050600	0506.00	55	\$40.20	\$83,623	Bachelor's Degree	050600	15	51.1
131072	Compensation, Benefits, and Job Analysis Specialists	051600	0516.00	55	\$29.26	\$60,862	Bachelor's Degree	051600	2	5.0
172061	Computer Hardware Engineers			53	\$42.23	\$87,855	Bachelor's Degree			
291071	Physician Assistants	120600	1206.00	53	\$39.56	\$82,277	Bachelor's Degree			
252012	Kindergarten Teachers, Except Special Education	490120	4901.20	50	[6]	\$50,608	Bachelor's Degree	490120	6	23.5
291071	Physician Assistants	120600	1206.00	53	\$39.56	\$82,277	Bachelor's Degree			
								<b>Total</b>	<b>404</b>	

Source: California Employment Development Department, Labor Market Information; California Community College Chancellor's Office; analysis by Cambridge West Partnership, LLC



The table below identifies thirteen occupations in San Diego County with 50 or more annual openings through 2018 that commonly require some post-secondary vocational education. These occupations are ones in which private, for-profit trade schools commonly provide programs of study. Their offerings are not included in the total programs column.

San Diego County Occupations Commonly Requiring Some Post-secondary Vocational Education

SOC Code	Occupational Title	TOP	SOC to TOP6_decimal	An Av Total Jobs	2010 Median Hourly	2010 Median Annual	Expected Preparation	Inv'try TOP Code	Reg X Total Pqms	Av An Awards 08 to 12
436013	Medical Secretaries	051420	0514.20	300	\$15.70	\$32,667	Post-Secondary CTE	051420	11	8.3
292061	Licensed Practical and Licensed Vocational Nurses	123020	1230.20	253	\$22.98	\$47,797	Post-Secondary CTE	123020	5	93.3
493023	Automotive Service Technicians and Mechanics	094800	0948.00	156	\$19.54	\$40,637	Post-Secondary CTE	094800	28	198.5
493023	Automotive Service Technicians and Mechanics	094840	0948.40	156	\$19.54	\$40,637	Post-Secondary CTE			
399031	Fitness Trainers and Aerobics Instructors	083500	0835.00	135	\$17.44	\$36,259	Post-Secondary CTE	083500	8	16.8
399031	Fitness Trainers and Aerobics Instructors	083510	0835.10	135	\$17.44	\$36,259	Post-Secondary CTE			1.0
399031	Fitness Trainers and Aerobics Instructors	083520	0835.20	135	\$17.44	\$36,259	Post-Secondary CTE	083520	7	48.6
399031	Fitness Trainers and Aerobics Instructors	083550	0835.50	135	\$17.44	\$36,259	Post-Secondary CTE			
399031	Fitness Trainers and Aerobics Instructors	083560	0835.60	135	\$17.44	\$36,259	Post-Secondary CTE			
393011	Gaming Dealers			127	\$9.19	\$19,120	Post-Secondary CTE			
395012	Hairdressers, Hairstylists, and Cosmetologists	300700	3007.00	117	\$11.31	\$23,529	Post-Secondary CTE	300700	3	196.0
419022	Real Estate Sales Agents	051100	0511.00	96	\$20.15	\$41,911	Post-Secondary CTE	051100	18	75.2
419022	Real Estate Sales Agents	051110	0511.10	96	\$20.15	\$41,911	Post-Secondary CTE	051110	3	5.0
252011	Preschool Teachers, Except Special Education	130500	1305.10	95	\$13.59	\$28,269	Post-Secondary CTE	130500	33	237.8
514121	Welders, Cutters, Solderers, and Brazers	095650	0956.50	92	\$20.28	\$42,184	Post-Secondary CTE	095650	7	184.5
436012	Legal Secretaries	051410	0514.10	82	\$19.87	\$41,345	Post-Secondary CTE	051410	28	19.3
395092	Manicurists and Pedicurists	300700	3007.00	58	\$9.08	\$18,894	Post-Secondary CTE	300700	3	196.0
319011	Massage Therapists	126200	1262.00	53	\$20.79	\$43,237	Post-Secondary CTE	126200	3	57.0
493031	Bus and Truck Mechanics and Diesel Engine Specialists	094700	0947.00	53	\$22.55	\$46,916	Post-Secondary CTE	094700	14	39.5
								<b>Total</b>	<b>171</b>	

Source: California Employment Development Department, Labor Market Information; California Community College Chancellor's Office; analysis by Cambridge West Partnership, LLC



SOC Code	Occupational Title	TOP	SOC to TOP6_decimal	An Av Total Jobs	2010 Median Hourly	2010 Median Annual	Expected Preparation	Inv'try TOP Code	Reg X Total Pgms	Av An Awards 08 to 12
499021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	094600	0946.00	80	\$24.35	\$50,655	Long-Term OJT	094600	12	198.0
492022	Telecommunications Equipment Installers and Repairers, Except Line Installers	093430	0934.30	71	\$29.80	\$61,976	Long-Term OJT	093430	6	8.5
119012	Farmers and Ranchers	010200	0102.00	67	N/A	N/A	Long-Term OJT			
119012	Farmers and Ranchers	010220	0102.20	67	N/A	N/A	Long-Term OJT			
119012	Farmers and Ranchers	010230	0102.30	67	N/A	N/A	Long-Term OJT			
119012	Farmers and Ranchers	010300	0103.00	67	N/A	N/A	Long-Term OJT	010300	4	2.0
119012	Farmers and Ranchers	010310	0103.10	67	N/A	N/A	Long-Term OJT			
119012	Farmers and Ranchers	010400	0104.00	67	N/A	N/A	Long-Term OJT			
119012	Farmers and Ranchers	010930	0109.30	67	N/A	N/A	Long-Term OJT	010930	6	21.0
119012	Farmers and Ranchers	011200	0112.00	67	N/A	N/A	Long-Term OJT			3.0
472051	Cement Masons and Concrete Finishers			65	\$27.96	\$58,147	Long-Term OJT			
272022	Coaches and Scouts	083500	0835.00	58	[6]	\$41,067	Long-Term OJT	083500	8	16.8
272022	Coaches and Scouts	083510	0835.10	58	[6]	\$41,067	Long-Term OJT			1.0
272022	Coaches and Scouts	083520	0835.20	58	[6]	\$41,067	Long-Term OJT	083520	7	48.6
272022	Coaches and Scouts	083550	0835.50	58	[6]	\$41,067	Long-Term OJT			
272022	Coaches and Scouts	083560	0835.60	58	[6]	\$41,067	Long-Term OJT			
514041	Machinists	095630	0956.30	58	\$19.41	\$40,385	Long-Term OJT	095630	6	99.5
472044	Tile and Marble Setters	095260	0952.60	57	\$24.22	\$50,377	Long-Term OJT	095260	4	143.0
499052	Telecommunications Line Installers and Repairers	093430	0934.30	54	\$25.11	\$52,217	Long-Term OJT	093430	6	8.5
513011	Bakers			54	\$12.24	\$25,460	Long-Term OJT			
								<b>Total</b>	<b>136</b>	

Source: California Employment Development Department, Labor Market Information; California Community College Chancellor's Office; analysis by Cambridge West Partnership, LLC



SOC Code	Occupational Title	TOP	SOC to TOP6_decimal	An Av Total Jobs	2010 Median Hourly	2010 Median Annual	Expected Preparation	Inv'try TOP Code	Reg X Total Pgms	Av An Awards 08 to 12
413099	Sales Representatives, Services, All Other	050650	0506.50	292	\$27.18	\$56,544	Moderate-Term OJT	050650	7	4.5
413099	Sales Representatives, Services, All Other	050940	0509.40	292	\$27.18	\$56,544	Moderate-Term OJT			4.0
413099	Sales Representatives, Services, All Other	059900	0599.00	292	\$27.18	\$56,544	Moderate-Term OJT			
533032	Truck Drivers, Heavy and TractorTrailer	094750	0947.50	284	\$20.43	\$42,495	Moderate-Term OJT			
319092	Medical Assistants	051420	0514.20	245	\$14.57	\$30,303	Moderate-Term OJT	051420	11	8.3
319092	Medical Assistants	120800	1208.00	245	\$14.57	\$30,303	Moderate-Term OJT	120800	2	58.5
319092	Medical Assistants	120810	1208.10	245	\$14.57	\$30,303	Moderate-Term OJT	120810	6	39.5
319092	Medical Assistants	120820	1208.20	245	\$14.57	\$30,303	Moderate-Term OJT	120820	10	33.3
319092	Medical Assistants	121900	1219.00	245	\$14.57	\$30,303	Moderate-Term OJT			
319092	Medical Assistants	122310	1223.10	245	\$14.57	\$30,303	Moderate-Term OJT	122310	2	59.0
472141	Painters, Construction and Maintenance	095270	0952.70	196	\$19.67	\$40,914	Moderate-Term OJT			
319091	Dental Assistants	124010	1240.10	165	\$17.38	\$36,143	Moderate-Term OJT	124010	4	140.0
414011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	050940	0509.40	147	\$33.80	\$70,301	Moderate-Term OJT			4.0
414011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	059900	0599.00	147	\$33.80	\$70,301	Moderate-Term OJT			
433021	Billing and Posting Clerks and Machine Operators			143	\$17.19	\$35,748	Moderate-Term OJT			
292052	Pharmacy Technicians	122100	1221.00	135	\$17.92	\$37,262	Moderate-Term OJT			
436014	Secretaries, Except Legal, Medical, and Executive	051400	0514.00	119	\$16.34	\$33,981	Moderate-Term OJT	051400	49	144.0
439199	Office and Administrative Support Workers, All Other			112	\$12.26	\$25,495	Moderate-Term OJT			
512099	Assemblers and Fabricators, All Other			111	\$13.91	\$28,938	Moderate-Term OJT			



The table below identifies fifty-five occupations in San Diego County, which expect to have 50 or more annual openings through 2018 that commonly require some short-term on-the-job training and perhaps some post-secondary vocational education. The U.S. Bureau of Labor Statistics views short-term OJT as being one month or less and informal training that is occupational specific rather than job specific. The skills learned are thought to be transferable to another job in the same occupation.

However, this is an instructional area in which private, for-profit trade schools commonly provide programs of study. Their offerings are not included in the total programs column. The College might consider a workforce development effort as a means to prepare students to enter these occupations.

San Diego County Occupations Commonly Requiring Short-Term On-the-Job Training and Perhaps Some Formal Education

SOC Code	Occupational Title	TOP	SOC to TOP6 decimal	An Av Total Jobs	2010 Median Hourly	2010 Median Annual	Expected Preparation	Inv'try TOP Code	Reg X Total Pgms	Av An Awards 08 to 12
412031	Retail Salespersons	010920	0109.20	1,968	\$10.06	\$20,930	hort-Term OJT	010920	5	7.3
412031	Retail Salespersons	050650	0506.50	1,968	\$10.06	\$20,930	hort-Term OJT	050650	7	4.5
412031	Retail Salespersons	050900	0509.00	1,968	\$10.06	\$20,930	hort-Term OJT	050900	7	25.8
412031	Retail Salespersons	050940	0509.40	1,968	\$10.06	\$20,930	hort-Term OJT			4.0
353031	Waiters and Waitresses			1,714	\$9.10	\$18,927	hort-Term OJT			
412011	Cashiers	050650	0506.50	1,566	\$9.23	\$19,202	hort-Term OJT	050650	7	4.5
353021	Combined Food Preparation and Serving Workers, Including Fast Food			872	\$9.21	\$19,168	hort-Term OJT			
439061	Office Clerks, General			724	\$14.19	\$29,516	hort-Term OJT			
353022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop			595	\$9.41	\$19,570	Short-Term OJT			
399021	Personal and Home Care Aides			578	\$10.19	\$21,195	hort-Term OJT			
435081	Stock Clerks and Order Fillers	050650	0506.50	527	\$10.48	\$21,812	hort-Term OJT	050650	7	4.5
537062	Laborers and Freight, Stock, and Material Movers, Hand			479	\$11.50	\$23,926	hort-Term OJT			
373011	Landscaping and Groundskeeping Workers	010910	0109.10	393	\$11.97	\$24,901	hort-Term OJT	010910	16	41.0
373011	Landscaping and Groundskeeping Workers	010940	0109.40	393	\$11.97	\$24,901	hort-Term OJT	010940	4	9.0

Source: California Employment Development Department, Labor Market Information; California Community College Chancellor's Office; analysis by Cambridge West Partnership, LLC



SOC Code	Occupational Title	TOP	SOC to TOP6 decimal	An Av Total Jobs	2010 Median Hourly	2010 Median Annual	Expected Preparation	Inv'try TOP Code	Reg X Total Pgms	Av An Awards 08 to 12
537061	Cleaners of Vehicles and Equipment			153	\$9.27	\$19,284	Short-Term OJT			
537051	Industrial Truck and Tractor Operators	094740	0947.40	151	\$15.56	\$32,374	Short-Term OJT	094740	2	14.0
434081	Hotel, Motel, and Resort Desk Clerks	050940	0509.40	148	\$10.92	\$22,703	Short-Term OJT			4.0
393031	Ushers, Lobby Attendants, and Ticket Takers			142	\$9.50	\$19,760	Short-Term OJT			
435052	Postal Service Mail Carriers			138	\$26.06	\$54,195	Short-Term OJT			
339099	Protective Service Workers, All Other			134	\$15.73	\$32,709	Short-Term OJT			
435061	Production, Planning, and Expediting Clerks			118	\$23.56	\$49,003	Short-Term OJT			
536021	Parking Lot Attendants			113	\$10.06	\$20,918	Short-Term OJT			
537064	Packers and Packagers, Hand			108	\$9.34	\$19,433	Short-Term OJT			
392021	Nonfarm Animal Caretakers			98	\$11.83	\$24,611	Short-Term OJT			
339092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers			95	\$13.58	\$28,250	Short-Term OJT			
254031	Library Technicians	160200	1602.00	79	\$17.37	\$36,137	Short-Term OJT	160200	2	111.0
434199	Information and Record Clerks, All Other			78	\$18.33	\$38,136	Short-Term OJT			
519198	HelpersProduction Workers			77	\$10.30	\$21,430	Short-Term OJT			
434151	Order Clerks			75	\$14.87	\$30,911	Short-Term OJT			
533031	Driver/Sales Workers	050650	0506.50	71	\$9.71	\$20,185	Short-Term OJT	050650	7	4.5
419041	Telemarketers	050900	0509.00	67	\$10.77	\$22,416	Short-Term OJT	050900	7	25.8
419041	Telemarketers	050940	0509.40	67	\$10.77	\$22,416	Short-Term OJT			4.0
434111	Interviewers, Except Eligibility and Loan			63	\$16.49	\$34,310	Short-Term OJT			
533041	Taxi Drivers and Chauffeurs	094750	0947.50	59	\$11.01	\$22,909	Short-Term OJT			
352015	Cooks, Short Order			56	\$11.27	\$23,450	Short-Term OJT			
434161	Human Resources Assistants, Except Payroll and Timekeeping			56	\$18.79	\$39,097	Short-Term OJT			



The discussion of competing institutions above is limited to those with a physical presence near the College. One source, Associate Degrees Online, identifies 78 different associate degrees that are available to California residents from 30 institutions they represent throughout the country.<sup>82</sup> The College has grown through its use of distance education to the point where 222 sections were offered in the fall 2011 term. As noted in the 2010 Substantive Change Proposal approved by ACCJC, the College offers a number of associate degree programs online. Within California, the California Virtual Campus (CVC) list contains 167 participating institutions, which includes mostly California community colleges. Those schools collectively offer an associate degree in over two-dozen different fields of study that can be completed online.<sup>83</sup>

### C. Opportunities for Improvement and Expansion of the Curriculum Offerings

With these labor market considerations as a backdrop, the College has been discussing and considering the possibility of some new instructional programs. In that regard, it might be useful if the College were to adopt the general philosophy of focusing on a limited number of instructional programs and services that school can do well. In the long run, there will be a commitment to continue growing the College in ways that can be sustained.

On the transfer side of instruction, as noted above, the emphasis is on continued work on SB 1440 majors so that students can successfully transfer with a minimal loss of units.

<sup>82</sup> Associate Degrees Online. List of Participating Schools. Retrieved December 10, 2012 from <http://www.associatedegreeonline.com>

<sup>83</sup> California Virtual Campus Programs Offered by College Retrieved December 7, 2012 from <http://www.cvc.org>

- **SB 1440 Majors.** The faculty has approved several of the TMCs. They are actively discussing almost all of the remaining model curriculums that have been released from the C-ID project efforts. It would be helpful to prospective transfer students if the faculty were to accelerate their deliberations and implement the available TMCs as quickly as possible. It is recognized that the requirements for submitting an A.A.-T or A.S.-T degree proposal using a TMC have been evolving and an extra effort will be required to ensure compliance with the latest expectations from the Chancellor's Office.<sup>84</sup>
- **General Education Certificates.** The College may want to consider seeking authorization from the Chancellor's Office to award a certificate of achievement to those students who complete either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

With respect to the basic skills courses, there is interest in consolidating the curriculum where possible, and facilitating the students' rapid completion of those foundational courses.

On the CTE side of instruction, several initiatives are under way, including:

- **Fire Science.** This program is offering wild land firefighting training through contract education. The faculty has also offered several of the state Fire Marshall Command series of courses for in-service education as fee-based offerings.
- **EMT/Paramedic.** The paramedic faculty will be offering

<sup>84</sup> California Community College Chancellor's Office. *Program and Course Approval Handbook*, 5<sup>th</sup> ed. Draft revisions February 6, 2013.



cause there is already a national curriculum, but no providers in San Diego. The program is discussing a curriculum initiative in emergency or disaster preparedness.

- **Administration of Justice.** The program leadership is discussing starting to offer P.O.S.T.-approved, advanced in-service law enforcement training courses.
- **Theater Arts.** If a new performance venue were available, the department is interested in developing a technical theater emphasis.
- **Mathematics.** The department is interested in two initiatives. A Quantway program for students who are not pursuing a math-based major and a Math Emporium approach to some of the basic skills curriculum.
- **Chemistry.** If a new science facility were available, the faculty are interested in introducing curriculum in nanotechnology, materials science, and green technology.
- **Exercise Science, Health and Athletics.** The department has an interest in reviving health assessment/testing associated with the Wellness Center.
- **Computer-Aided Design.** The faculty are interested in expanding the continuing education offerings.
- **Computer Information Systems.** The faculty are interested in expanding instruction to web development for portable devices as well as more complex problem-solving and configuration instruction with Cisco NETLAB software.
- **Computer Science.** The faculty are interested in cloud-based curriculum delivery and curriculum to teach programming for mobile devices.
- **Continuing Education.** The program leadership continues to be interested in an Adult Basic Education “boot camp”

and would like to move forward with several new fee-based course ideas.

- **Medical Office Professional.** The faculty are interested in reconfiguring the program and perhaps launching a separate health information technology program. However, all faculty associated with the program are adjunct.
- **Crown Cove Aquatic Center.** The Center leadership is interested in an outdoor recreation leadership program that would transfer to SDSU.

Although there are many good ideas emerging from these discussions, the College as a whole is not always able to move forward with new ideas or the development of current initiatives. Currently there is a critical shortfall of funds, full-time faculty and support personnel. The College, however, can ill afford to ignore future growth opportunity. It must continue to value a “can do” attitude that will position the College for a brighter future which grows programs to prepare future workers for a vibrant California economy and San Diego County with a technically competent workforce. It is within this framework that the College should continue to engage in these conversations.

### **Programs That Need Strengthening**

The College may wish to review the range of instructional programs offered as part of an effort to consider the proper mix of instructional offerings to meet the needs of the service area. With respect to CTE programs that would lead to immediate entry-level employment, it may be useful to ask the question- does the certificate or degree awarded upon conclusion of this program have a market value?

To assist in the exploration of that question the College needs to create a process that is responsive to the obligations found in Education Code section 78016. The Code requires a review of CTE programs every two years to ensure that there is a labor market demand for graduates, the programs do not unnecessarily duplicate other offerings in the area, and they are effective as measured by the employment and completion success of students in the program.

The College might wish to expend some efforts to consolidate and place programs into related knowledge groups then market them as a simplified path that leads to a related range of occupations. That effort may assist the new student in their decision-making process of selecting a career and a major program of study.

Recent announcements from the Accrediting Commission for Community and Junior Colleges (ACCJC), in part on behalf of the U.S. Department of Education, call attention to the expectation that member institutions must give greater attention to student success and program completion. Institutions are expected to set performance goals, measure and monitor their progress toward those goals with an eye to continual improvements.<sup>85</sup> The College may want to incorporate a greater emphasis on student success at the course and program level as program review activities move forward.

In reaching conclusions about program viability, College policy 4021 provides for the consideration of five broad performance measures:

<sup>85</sup> Barbara Beno. "U.S. Department of Education Regulations on Institutional and Accreditor Use of Student Achievement Data in Accreditation," Correspondence to Chancellors, Superintendents, and Presidents, January 31, 2013; Barbara Beno. "Accreditation 2013 and Beyond," Remarks to the Accreditation Institute, February 8, 2013.

1. Goals and objectives of the program are no longer appropriate to the mission of the College or congruent with the Institutional Strategic Plan of the District.
2. The program no longer meets industry needs and lacks demand in the current job market and is not considered an emerging industry or career or the program curriculum no longer aligns with university transfer majors or general education requirements.
3. The program does not meet the curriculum standards as defined by Title 5 section 55100.
4. There are insufficient resources to realistically support the program at a sufficient level of quality and the program have experienced continued low or declining enrollment (55% of class max or more), which is demonstrated by continued low persistence and completion rates in the program supported by reliable, valid, and longitudinal data.
5. The program has been determined to be out of compliance with existing state or federal laws or licensing laws in particular occupations.<sup>86</sup>

Other institutions have used more explicit criteria when considering the redesign or retirement of an instructional program. These other criteria sometimes include a mix of the following considerations:

- The number of degrees and certificates awarded over a three-year period;
- The number of enrollments over a three-year period;
- FTES/FTEF efficiency;

<sup>86</sup> Southwestern Community College District Policy. *Program Discontinuance, Policy 4021*. Adopted February 9, 2011.

- State, national and industry certification;
- Current job market strength;
- Future employment projections;
- Adequacy of facilities and equipment;
- Industry connections;
- Course alignment with current and future needs of industry;
- The level of competition from existing programs at neighboring schools;
- Current and planned redundancy within the County; and
- The frequency of need for resources and equipment refurbishment.

As part of the review of programs it might be useful to ascertain the extent to which students have completed any of the instructional programs in question but those students did not apply for a certificate or degree. That might be a source of under reporting of awards granted. The College might want to revisit its business processes and practices associated with the awarding and reporting of certificates and degrees to determine if a more proactive posture could increase the numbers of awards granted. The Walla Walla Community College in Washington was recognized as a distinguished institution in 2011 by the Aspen Institute’s program to promote college excellence. The basis of the recognition was, in part, based on their advisor data portal, which they have since expanded to allow the college to know which students have completed the degree and certificate requirements.<sup>87</sup>The San Jose-Evergreen Community College District

<sup>87</sup> The Aspen Institute. *The Aspen Prize for Community College Excellence*. 2011 and Kristi Wellington-Baker, Director CESD and Retention Services, Wall Walla Community College. *Personal Correspondence*. February 28, 2013.

is working to develop a software package that would identify qualified students and the Coast Community College district has already developed a software program to identify students who are qualified for an award.<sup>88</sup>The College may want to consider a more aggressive posture to identify students who have completed program requirements and entice them to apply for the award or automatically issue the award.

The College has a strikingly large number of instructional programs approved by the Chancellor’s Office. Additional programs listed in the catalog that require fewer than 18 units to complete have not yet been reviewed and approved by the Chancellor’s Office. As a matter of policy, the Chancellor’s Office will not agree to review any instructional program requiring less than 12 semester units to complete; however, colleges are free to create those programs and ask the local Board of Trustees to approve them as a certificate of proficiency. Colleges may not place a notation on a student’s transcript indicating completion of a program of study unless that program has been approved by the Chancellor’s Office. Listed below are the fall 2012 counts of authorized instructional programs and fall 2011 headcounts for the colleges in San Diego County. As illustrated in the table, the colleges collectively offer 1,520 authorized instructional programs. That count does not include low-unit certificates that have been approved by the local boards of trustees.

<sup>88</sup> Tamela Hawley, Dean for Research and Planning, San Jose-Evergreen Community College District. *Personal Correspondence*. February 28, 2013. Omid Pourzanjani, Golden West College, Coast Community College District. *Interview*. October 20, 2012.



SWC leads the region in the numbers of programs authorized by the California Community College Chancellor’s Office, but ranks fourth in size of institution. The College may want to consider if so many instructional programs are necessary and helpful to the student body and community served. While there is no simple answer or optimal number of instructional programs in an institution’s portfolio of offerings, there is recent research that suggests the chore of navigating college is frustrated by too many choices.<sup>89</sup> A recent body of research has concluded that most community colleges, as currently designed, are not set up to maximize student completion rates. Instead many students are overwhelmed with the array of sequences, workforce programs (career training programs), transfer options, and continuing education opportunities available to them- thus hindering their success in college.<sup>90</sup>

An analysis of program awards between 2009-10 and 2011-12 was completed at the College and is being repeated in this Plan.<sup>91</sup> The award data was drawn from the College’s student information system and can be made available at the individual student name level of detail. All data face scrutiny and have potential for inaccuracy or unintended error. Completion data is just one metric to be used when reviewing the viability and vitality of a program, and is primarily provided to encourage discussion and inform decision-making in light of the public policy emphasis upon increasing college completions.

The analysis revealed two very strong degree programs. Associate Degree Nursing accounted for an annual average of 63.7 awards per year while Psychology represented an annual average of 51.3 awards.

A mix of 21 liberal arts and career and technical programs (degrees and certificates) offered by the College appears to be strong as the programs averaged from 2009-10 to 2011-12 between 31.0 to 10.0 awards per year. The instructional programs that fall into this strong category are noted in the table below. Programs with the “CT” initials denote a certificate of achievement; those with the CTP initial denote a certificate of proficiency; degrees are denoted as either AA or AS, some of which were designed in support of transfer education at a four-year institution.

89 Judith Scott-Clayton. *The Structure of Student Decision-Making at Community Colleges*. Community College Research Center Brief #49, January 2011; Judith Scott-Clayton. *The Shapeless River: Does a Lack of Structure Inhibit Students’ Progress at Community Colleges?* Community College Research Center Working Paper No. 25, January 2011.

90 Thad Nodine and Andrea Venezia. *Changing Course: A Guide to Increasing Student Completion in Community Colleges*. WestEd, 2011; California Community Colleges. *Student Success Task Force Final Report*. 2012

91 Award counts and analysis by program provided by the SWC Vice President for Academic Affairs, February 26, 2013.

Instructional Programs with a Strong Awards History

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr.)	Actuals: # Students in Major (2009-10 to 201-12 average/yr.)
Administration of Justice	Criminal Justice	AA Transfer	31.0	1,213.3
Administration of Justice	Administration of Justice: Law Enforcement Emphasis	CT	30.3	64.0
Child Development	Child Development Teacher	AA	30.0	410.3
Dental Hygiene	Dental Hygiene	AS	29.7	371.7
Sociology	Sociology	AA Transfer	26.0	263.7
Accounting	Accounting	AA Transfer	26.0	301.7
Administration of Justice	Administration of Justice-Law Enforcement Emphasis	AS	24.3	281.3
Administration of Justice	Administration of Justice: Corrections Emphasis	CT	23.3	12.7
Child Development	Child Development Teacher Permit	CT	22.7	59.3
Emergency Medical Technology and Paramedic	Emergency Medical Technology and Paramedic	CT	22.3	155.7
Construction Inspection	Construction Inspection	CT	18.7	23.0
Child Development	Spanish-to-English Associate Teacher Certificate	CTP	16.3	65.0
Fire Science	Fire Science Technology	CT	16.0	107.3
Vocational Nursing	Vocational Nursing	CT	15.7	254.7
Administration of Justice	Administration of Justice-Corrections Emphasis	AS	12.7	104.0
Art	Graphic Design	AA Transfer	12.7	294.3
Sociology	Social Work	AA Transfer	12.0	251.3
Legal	Paralegal Studies	CT	11.3	29.0
Fire Science	Fire Science Technology	AS 1	1.0	381.7
Accounting	Accounting	AS	10.3	191.7
Business	Legal Interpretation-Basic (English/ Spanish)	CT	10.0	

Source: SWC Office of the Vice President for Academic Affairs



Another 33 instructional programs perhaps could be stronger as they averaged from 2009-10 to 2011-12 between 9.3 and 5.0 awards per year. The programs that could be stronger are noted in the table below.

Instructional Programs Which Could Have a Stronger Awards History

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr.)	Actuals: # Students in Major (2009-10 to 201-12 average/yr.)
Child Development	Child Development	AA Transfer	9.3	670.0
English	English A	A Transfer	9.0	366.0
Administration of Justice	Law Enforcement Training Academy	CT	8.7	54.0
Legal	Paralegal Studies	AS	8.7	84.3
Medical Office Professional	Medical Assistant: Administrative-Basic	CT	8.3	33.3
Computer Information Systems	CIS-Web Designer	CTP	7.8	31.0
Political Science	Political Science	AA Transfer	7.7	174.0
Administration of Justice	Administration of Justice: Forensics	CT	7.3	9.0
Medical Office Professional	Medical Assistant: Coding and Insurance-Basic	CT	7.3	39.3
Economics	Economics	AA Transfer	7.3	100.7
Exercise Science	Fitness Specialist Certification-Advanced	CT	7.0	37.0
Construction Inspection	Construction Inspection	AS	7.0	3.3
Business	Legal Interpretation and Translation-Intermediate (English/Spanish)	CT	6.7	33.3
Biology	Biotechnology	CT	6.7	21.3
Political Science	Public Administration	AA Transfer	6.3	57.0
Business	Finance	AA Transfer	6.3	53.0
Art	Art	AA Transfer	6.3	382.3

Source: SWC Office of Institutional Research; analysis by Cambridge West Partnership, LLC



Based on the numbers of awards granted, this group of programs may be capable of yielding more awards. They may be solid instructional programs, particularly if the size of the student enrollment were considered, but in terms of awards granted, they are not yet excelling. It is unreasonable to expect every instructional program to be “stellar” but there may be steps for improvement that could be taken by the programs. The ACCJC is expecting all member colleges to set program performance expectations, systematically collect evidence, reflect upon that evidence to reach conclusions regarding program improvement initiatives, and to make those changes supported by resource allocations where appropriate.

Financially, it is essential that the College ensure that programs are sustainable, i.e. economically viable and responsive to employer or transfer needs. The College might want to advance instructional programs that are anchored by industry-endorsed standards and third-party certification of learning outcome accomplishments. At this time the College sponsors seven programs that have a licensure or certification requirement to enter the occupation. It might be useful for the College to review the inventory of CTE programs to ascertain if other programs have similar linkages to licensure or certification requirements then provide additional publicity about those programs. The College might wish to embrace the principle that all instructional programs intended to facilitate transfer to a four-year institution should be well articulated with public and/or private four-year institutions where.

One additional CTE program, the Police Academy, provides graduates with a certification from the Peace Officers’ Standards and Training (POST) state agency. The certification, which is valid for three years, provides the graduate with an advantage in the hiring process as law enforcement agencies generally give preference to those candidates who are ready for field training.

If licensing and certification are not commonly required to enter occupations the programs were intended to support, the College may want to survey employers to determine the extent to which they currently give hiring preference to a graduate of the program offered at the College. If hiring preference is the case, another course of action to strengthen a program is to make use of the hiring preference in marketing materials as another way to demonstrate that an award from the program has market value.

**Programs Granting Less Than Five Awards Per Year**

The College has expressed that student completion needs to be factored into course offerings and program reform. There are many instructional programs that averaged from 2010-11 to 2011-12 fewer than 4.8 awards per year. The counts shown in all of these lists do not include those students who have completed coursework to equal a completion, but did not apply for the certificate or degree. Additional data maintained at the program level should be consulted and additional metrics should be considered during the evaluation of a program’s impact and efficiency. A listing of all instructional programs is found in the Appendix.

Over a period of several program review cycles, the College has developed a comprehensive program review process to evaluate the vitality of instructional and student services programs. The purpose of the program vitality review process is to determine what additional resources may be needed to support the continued the vitality and continued viability of a program in response to concerns identified during program review regarding significant changes in enrollment, labor market demand, faculty availability, or facility and equipment costs and availability. The vitality review provides an opportunity to gather more data and information in response to these concerns and to verify that existing data is accurate and reliable. The evaluation ought to support a discussion



those 25 to 34-years of age.<sup>92</sup>

The College must continue to practice its efforts to set program performance expectations, systematically collect evidence, and reflect upon this evidence to reach conclusions regarding program improvement or program discontinuation initiatives.

**Program Changes and Adjustments**

**Budget Impacts**

In accordance with the College Curriculum Handbook, faculty originators and deans are required to consult with relevant entities on campus to determine the financial impact, if any, of a new curriculum initiative or a change and the impact of any curriculum change on other courses and/or programs across campus. This step is necessary to avoid creating programs and/or courses with significant financial impacts without proper planning and to make others on campus aware of new curriculum proposals or changes that may affect their programs or trigger a substantive change request to the Accrediting Commission.

**Certificates of Completion, Proficiency or Achievement**

The College appears to have pursued a curricular strategy in career and technical education areas of introducing three levels of certification (basic, intermediate and advanced), in addition to the associate degree, for many disciplines. While this strategy may have been inspired by the concept of “stackable certificates,” it is far from clear that each level of certification aligns to an industry-recognized set of knowledge and skills that have a market value. Recent research has revealed that two out of every three workers who have both a certificate and a degree earned the certificate

<sup>92</sup> Anthony Carnevale, et. al. Career and Technical Education: Five Ways that Pay Along the Way to the B.A. Center on Education and the Workforce, Georgetown University. September 2012; Anthony Carnevale, et. al. Certificates: Gateway to Gainful Employment and College Degrees. Center on Education and the Workforce, Georgetown University. June 2012

first, thus the certificate does serve as a stepping stone on the way to a college degree. That same study found that generally, short-term certificates of less than one year have little economic payoff to the worker. However, in some cases, short-term certificates requiring less than one year are wage boosters, such as for males earning certification in police and protective services disciplines or females earning business and office management certifications. On average, certificate holders earn 20 percent more than high school-educated workers and in some fields earn more than workers with an associate’s degree. The research concludes with the observation that certificate programs could be considered successful if they promote either: (1) gainful employment and long-term job and income security or (2) encourage the acquisition of a college degree.<sup>93</sup>

A review of the instructional programs listed in the 2012-2013 College catalog documents a number of certificates of achievement programs that may not have been presented to the Chancellor’s Office for review and approval. In some cases the total number of units required is below the 12-unit threshold and would not be reviewed by the Chancellor’s Office staff, but in other cases the units required for completion range from 12 to 17.5 units. Any certificate requiring fewer than 18 units is described as a certificate of proficiency. One accounting of the certificates of proficiency identified 43 programs.<sup>94</sup> Any non-credit Chancellor’s Office approved program is described as awarding a certificate of completion. The College appears to have had eight of the non-credit certificate of completion programs approved.

<sup>93</sup> Anthony Carnevale, et. al. *Certificates: Gateway to Gainful Employment and College Degrees*. Center on Education and the Workforce (Georgetown University), June 2012.

<sup>94</sup> Susan Soy, Office of Instructional Support Services, Southwestern College. *Personal Correspondence*. September 29, 2012.

The College catalog lists a number of certificates requiring between 12 and 17.5 units of credit each. The College has the prerogative to approve locally such programs, but cannot memorialize a student's accomplishment of the curriculum requirements on a transcript. However, the College may report those program awards to the state and receive a certain amount of "credit" for those awards. Although the programs requiring between 12 and 17.5 units could be presented to the Chancellor's Office for approval as a certificate of achievement only four of them appeared on the official list of approved programs at the Chancellor's Office web site.

In 2007-08 and 2008-09 the College reported 465 and 436 of these certificate awards to the Chancellor's office respectively in each of those two reporting periods. A closer inspection of this data revealed that some of these awards actually might have been certificates of achievement requiring 18 or more credit hours to earn. According to state records, the reporting of those low-unit awards declined to only 35 in 2011-12. Because certificate awards to students in these programs have not been reported to the State in great numbers, the College may not be getting "full credit" in the CTE accountability model required by the Carl Perkins Act. Unless the required units are brought up to at least 18 semester credits, the awarded certificates, even if reported to the State, would not be credited to the College in the ARCC framework.

It may be advantageous for the College to discuss preparing instructional program proposals to the Chancellor's Office for all of the certificates they intend to retain that require between 12 and 17.5 units to complete. Upon approval of a program, the College would be allowed to annotate a student's transcript that they earned a certificate of achievement. Additionally, the College would earn appropriate credit under the provisions of the Carl Perkins Act, if the award were also reported to the Chancellor's Office. Even if

program approval is not pursued for these certificates the College may want to consider an effort to consistently report all awards to the Chancellor's Office.

## **D. Planning Opportunities Related to College Priorities**

### **Recommendations for New Initiatives**

The discussion that follows explores the four College strategic priorities associated with the core mission of the institution, some of the activities in which the College has engaged to support those priorities, and suggestions for additional initiatives the College might consider.

### **Student Access Priority Locations**

Southwestern College's original campus is well positioned on the eastern edge of the primary city in its service area, Chula Vista, to capture the ongoing development of the city, as it grows eastward. The College has additionally positioned three Higher Education Centers geographically to address community needs in National City, San Ysidro and Otay Mesa. The first two are located in developed urban areas, while Otay Mesa is awaiting residential development that will bring more students to that location. Of the three, San Ysidro appears to be highly impacted and an intensely utilized facility. National City provides easy access and ample parking, but perhaps would benefit from additional instructional offerings that serve the unique needs of National City. Otay Mesa would perhaps benefit if the campus were completed with promised outdoor physical facilities required of the public safety programs and if there were daytime offerings that would attract additional students.

### Outreach

The College has had a set of robust outreach activities in the past and continues those efforts today, within the significant resource constraints.<sup>95</sup> Some of these activities have been funded by federal grants such as the Gear Up grant. Into the future, the College may want to consider re-applying for available grant support to re-establish more outreach efforts.

### Distance Education Strategies

The College has acknowledged the growth of online education and the fact that students are able to earn certain certificates and/or degrees by completing more than half of their required courses online. Therefore, a substantive change proposal was developed in 2010 and approved by ACCJC. In light of the importance of distance education, changed federal expectations, and recent Commission action, the College is developing an overarching strategic plan for distance learning. This plan will guide the College in the choice of which courses to authorize for the distance education modality and ways to support both the faculty and students engaged in distance learning. The College leadership should also take note of the changed expectations regarding the management of an online instructional program as represented in the Commission's adoption of the Western Consortium on Educational Technology (WCET) policy and the creation of a separate manual entitled Guide to Evaluating Distance Education and Correspondence Education (October 2010).<sup>96</sup> The College will want to ensure that there are established and enforced faculty, student and resource requirements, training and certification that reflect the same standards for distance education as are imposed for face-to-face instruction.

95 Angelica Suarez, Vice President for Student Affairs. Southwestern College Outreach Initiatives Update. Personal Correspondence, December 10, 2012.

96 See the Recent Commission Actions section for January 2011 adopted new policies at <http://www.accjc.org/actions-on-policy>

Nationally, the numbers of students taking at least one online course has now surpassed six million such that nearly one-third of all students in higher education are taking one online course.<sup>97</sup> The convergence of interest in recognizing prior learning experiences as part of learning requirements in high education with the advent of free massive open online courses (MOOCs) creates new opportunities for the College to consider on the frontier of distance education.<sup>98</sup> The American Council on Education (ACE) has even announced its recommendation of college-level credit for several MOOC courses as more major universities join the ranks of those providing this variety of online education.<sup>99</sup> Some descriptive research, and a growing body of more precise research with controls for course and instructor differences, argues that student performance in online courses is not significantly different from performance in traditional classroom offerings.<sup>100</sup>

However, four studies were recently completed by the Community College Research Center on the topic of online and hybrid courses. These studies highlight the challenges associated with distance learning for both students and institutions. Two of the studies were completed using system-wide data from Virginia and Washington State community colleges, one was a follow-up study requested by the Washington State authorities, and the third was a literature review of the impact of online learning on low-income and underprepared students. The initial two state-specific studies followed a cohort of students from 2004 over a period of nearly five years with similar academic outcomes. Although students enrolled in hybrid courses were similar to those enrolled

97 Babson Survey Research Group and the College Board. *Going the Distance-Online Education in the United States, 2011*.

98 Paul Fain. "Free Course, Inexpensive Exam," *Inside Higher Education*. Retrieved February 4, 2013 from <http://www.insidehighered.com>.

99 Larry Gordon. "A Milestone for Online Education," *Los Angeles Times*, February 7, 2013, p. AA2.

100 Gregory Merrill and Craig Galbraith. "Learning Outcomes and Instructional Delivery," *Journal of Business and Behavioral Sciences*, v. 21, No. 2, Spring 2010.



the unstructured online world; and (4) limited support services. The College has addressed some of the technical difficulties by providing support services to students through an Online Learning Support Department that thrives on customer service. However, the College may want to consider a strategy that provides more professional support to faculty as they redesign their courses for the online environment and perhaps may want to insist that participating faculty achieve some form of online educator training certification before teaching any online course. To deliver the highest quality online education students need to be engaged in the learning exercises. Coaching faculty in ways to promote that enhanced engagement through the use of new technologies (discussion boards, chat sessions, blogs, Twitter, Skype, YouTube, etc.) is an appropriate part of that faculty certification.<sup>104</sup>

The study authors argue that supports should be integrated into the everyday lives of online students. For example, students should be required to complete an assessment prior to enrolling. This assessment would preferably provide more tailored direction and advice to the individual student based on his/her need to learn technology skills and study habits. The assessment would also provide score information to the instructor so that the data could be used in a proactive approach to help the student succeed. Prospective online students should also be required to complete a tutorial with practice exercises on how to use the course management system deployed to support the instruction. Online support such as access to a reference librarian is an essential service, but to familiarize the students with the service, some activity requiring consultation with the librarian should be introduced early in the course of study. The hours during which technical support and tutoring are offered need to be expanded and

<sup>104</sup> Lee Revere and Jamison Kovach. "Online Technologies for Engaged Learning: A Meaningful Synthesis for Educators," *Quarterly Review of Distance Education* v. 12 No. 2, Summer 2011, p. 113-124.

instructors need to encourage students to use those services.

### **Career/Major Choice Strategies**

The Institute for Higher Education Leadership and Policy (IHELP) at California State University, Sacramento has produced a series of reports about policy issues and practices associated with California community colleges. One report, *The Road Less Traveled*, argues for the development of policy that would require students to declare a field of study when they enter the institution. That idea found its way into the Student Success Task Force recommendations. To enable students to make that declaration, the College may want to aggressively promote the use of California Career Café, Bridges.com or develop a set of generic educational plans for career and technical occupation programs similar to the software created at the Coast Community College District.<sup>105</sup> These generic plans provide a link between the high schools, the College and the local CSUs. Coastpathways.com offers the students an interactive web resource to select a CTE program. This allows students to determine which courses are required for each program, which related general education courses are recommended, and which high school courses are articulated with each college program, as well as which University courses would be required to complete a bachelor degree in the program. The Coast District software identifies salary information for the occupational pathway by a link to OCCareers.com where the traditional 16 pathways developed by the federal government have occupations that are translated into local data. Programs offered by other colleges in the Coast District are also displayed at the OCCareers site, which is an Orange County resource. For registered students, the Coastpathways.com site also provides a schedule planner to assist students to make class choices consistent with program specifications. These software products and web sites may help students declare a

<sup>105</sup> CoastPathways.com Retrieved December 8, 2012 from www.coastpathways.com

course of study earlier in their college careers than they might have otherwise. Most features of the product are open to the public (prospective students). These products may work well with the expanded degree audit application from Datatel (Ellucian) that is being provided to the counseling faculty in spring 2013.

The College may want to review the critical transition points that students experience in college to focus on policies and practices that promote rapid entry into and completion of instructional programs of study. Recent research calls attention to the importance of coherent programs that prepare students for success in further education and/or employment. Research also notes the importance of placing new students into a program where their progress is continually monitored to ensure completion.<sup>106</sup> To address these kinds of issues and to help students reach their college completion goals, some community colleges are creating structured pathways that allow students to explore their education and career options while also making progress toward a credential. The College may want to consult recently released reports that are part of the Completion by Design initiative from the WestEd organization. The reports outline some of the major issues that colleges are discussing or experimenting with that are related to the creation of more structured student pathways, including:

- Mandating intake processes that provide education and career counseling, inform students about programs that are related to their interests, and help students explore and develop education goals, career goals, and a degree plan
- Balancing flexibility and prescription in student selection of courses and majors

<sup>106</sup> Davis Jenkins. *Get With the Program: Accelerating Community College Student's Entry Into and Completion of Programs of Study* (New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #32, 2011); Davis Jenkins *Redesigning Community Colleges for Completion: Lessons from Research on High-Performance Organizations* (New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #24, 2011)

- Defining clear instructional programs enabling students to complete a program as quickly as possible
- Providing proactive and ongoing education and career advising, supports, and planning across each stage of student progress
- Increasing program alignment with employment and transfer opportunities
- Providing more structured pathways has the potential to affect all support services and instructional programs by requiring better communication and integration of services.<sup>107</sup>

### **Basic Skills Strategies**

Given the large numbers of new students who are recommended for remedial instruction that were noted in the internal scan portion of this Plan, the College may want to develop some proactive strategies designed to maximizing the numbers of new students who avoid basic skills. One strategy that some community colleges have found to be useful is an aggressive campaign to get prospective students to prepare for the placement examinations.

Preparation for placement exams is facilitated by a practice examination and by guides that are available online at <http://www.swccd.edu/3rdLevel/index.asp?L2=114>. Additional practice resources are available at the College bookstore. The Riverside Community College District reported good success with their efforts to incentivize prospective students to study/prepare for the placement examinations.<sup>108</sup> Improvements were most notable

<sup>107</sup> Mina Dadgar, et. al. *Providing Structured Pathways to Guide Students Toward Completion*. WestEd, 2013; Thad Nodine and Andrea Venezia. *Changing Course: A Guide to Increasing Student Completion in Community Colleges*. WestEd, 2011; Andrea Venezia and Thad Nodine. *Changing Course: A Planning Tool to Increase Student Completion in Community Colleges*. WestEd, 2011.

<sup>108</sup> Myung Hwa Koh. *Data Analysis of the 2011 Jump Start Program: Jump Start, Remembering What You Already Know*. Riverside City College, June 4, 2012.

for math exam scores. Santa Monica College provides an online orientation to the placement tests called Prep2Test at this URL <http://www.smc.edu/EnrollmentDevelopment/AssessmentCenter/Pages/Prepare-Before-Testing.aspx>. Assessment personnel at Santa Monica have found that students who prepare were 19 percent more likely to place into college-level English and 36 percent more likely to place into college-level math than students who did not prepare. In other states a fee-based refresher course is provided for students who took the placement test and scored below college level on the first try.<sup>109</sup> Researchers at the Community College Research Center studied assessment and placement practices at open-access, two-year colleges in seven states. They generally found that most systems focused on students who were re-taking the exam after an initial failure. For those addressing first-time test-takers, the majority of colleges provided links to sample tests on their websites. However, only a handful had any systematic practice in place to direct students to those resources. A few schools did require entering students to sign contracts prior to testing stating that they were informed about the test, its purpose, and what they could do to prepare. In North Carolina the refresher course is required of students who placed into two or more developmental courses. The success of that practice convinced college leaders that the opportunity should be offered to all students who placed into developmental education. The researchers' conclusion is that "implementing placement test review seems to improve placement accuracy."<sup>110</sup>

A second strategy to maximize the numbers of students who move directly into college-level instruction is based on high school transcript analysis. The Long Beach Community College District

109 Pamela Burdman. *Where To Begin? The Evolving Role of Placement Exams for Students Starting College*. Jobs for the Future, August 2012.

110 Michelle Hodara, et. al. *Improving Developmental Education Assessment and Placement: Lessons from Community Colleges Across the Country*. (New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #51, November 2012).

research staff discovered that many of the students who placed deep into English remediation courses were high-performing English students in high school. The staff completed a statistical analysis using nine years of data to compare the relative utility of high school grades in predicting college-course performance. The results documented the discipline grades in English and Math plus the overall high school GPA were less related to how students scored on the college placement exam but much more related as the strongest predictors of actual performance in college courses of the same discipline. That finding has led to an experiment in fall 2012 to place approximately 800 recent high school graduates, whose high school performance was acceptable, directly into college-level curriculum.<sup>111</sup> The Research and Planning Group for the California Community Colleges has launched a statewide project, Student Transcript-Enhanced Placement Study (STEPS) involving 22 colleges to replicate the work done at Long Beach. The College may want to consider participating in this statewide project. This California research builds on national research efforts to explore alternatives to the high-stakes placement exams commonly used in higher education. A recent report from the Community College Research Center points to the improved predictive accuracy gained by using high school GPA rather than placement exam results.<sup>112</sup>

A related effort to maximize the numbers of students enrolling directly into college-level English composition has been brought to fruition at the Grossmont-Cuyamaca Community College

111 John Hetts, et. al. *Assessing Assessment: Evaluating Models of Assessment and Placement*. Long Beach City College. April 2012.

112 Clive Belfield, et. al. *Predicting Success in College: The Importance of Placement Tests and High School Transcripts*. (New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #42, February 2012); Judith Scott-Clayton. *Do High Stakes Placement Exams Predict College Success?* (New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #41, February 2012).



is to persuade the high school students who are assessed to be “not ready” for college English and/or math to seek out additional curriculum while still in high school during their senior year, before they complete the College placement exams.

To promote access to the College the student affairs staff has engaged in a wide range of outreach activities to the SUHSD. The instructional leaders of the College have long collaborated with faculty in the SUHSD to share teaching ideas and strategies in key discipline areas such as math, sciences, and English. These have produced very impressive results, particularly among under represented groups.

**Student Success Priority**

The College goal is to demonstrate a strong commitment to student learning by ensuring that program excellence will be promoted. Assessing student learning, achievement and service outcomes is one way the College might want to approach achieving this goal. The College intends to continue implementation of learning outcomes assessment and to attain sustainable and continuous quality improvement status as described in the ACCJC rubric. With respect to student achievement the College intends to increase the numbers of students who are awarded degrees to 3,000 within two years (up from the present 988).

**Transfer Mission Strategies**

Most students intending to transfer from the College to a four-year institution plan to attend a CSU. The transfer major initiative (SB1440) discussed earlier in this Plan holds the potential to smooth the transfer process to a CSU campus for many students at the College who are able to select a field of study and meet the academic requirements. The faculty will continue actively to engage in the inter-segmental discipline peer review process

being used to develop the TMCs. The Curriculum Committee will also continue to be vigilant in fast tracking those approved TMCs that fit with the established campus instructional programs, but the faculty are encouraged to accelerate their deliberations and may need to embrace a system-wide TMC rather than waiting for SDSU faculty to create a distinct University model.

The STAR Act also has the potential to reduce the workload for the articulation officer at the College. As noted earlier in this Plan, an increasing number of students from the College transfer to in-state private universities. Given the economic circumstances for all segments of public higher education in the State, the College may want to focus some efforts on creating additional program-level articulation agreements with the in-state private institutions to which students from the College most commonly transfer. Currently the College has agreements with five of the fourteen private in-state institutions to which SWC students transfer. Comparatively speaking, a smaller number of students from the College transfer to the UC campus locations. Although the UC campuses cannot be directed by the Legislature to participate in the process created under the STAR Act, they have been encouraged to facilitate transfer. Therefore, the College will explore ways to use the adopted TMCs that were adopted by the College to engage the faculty at nearby UC locations (UCSD) in discussions about program-level articulation agreements.

For over 25 years UCSD has provided the Transfer Admission Guarantee (TAG) program for the region and more recently for the State. UCSD has determined that TAG will no longer be a viable program for transfer and has decided to abolish TAG starting in fall semester of 2014. In addition, UCSD has provided a U-LINK pathway for students graduating from feeder high schools who utilize SWC during freshmen and sophomore years to complete their admission to UCSD. The SWC administration, faculty, and



The Road Less Traveled report criticizes the state’s basic skills program for not including any explicit focus on the CTE programs and also criticizes the CTE certificate programs for failing to require English or math (critical thinking/problem solving) instruction as part of the certificate curriculum requirements. The absence of those requirements triggers questions about whether graduates possess the skills necessary for success in the workplace. A review of the current certificates offered by the College confirms that some make these requirements, but not most of them, fit the pattern described in The Road Less Traveled report.

The Lumina Foundation released the Degree Qualification Profile approximately two years ago.<sup>118</sup> The College might want to review the learning outcomes of degrees and certificates in light of the DQP. Based solely on the titles and descriptions of required courses, it is not entirely clear the extent to which those foundational talents described in the DQP are not developed in the CTE curriculum itself, nor it is evident how the employer-desired “soft skills” are fostered.<sup>119</sup> Some institutions are experimenting with job readiness scores and attendance rating annotations on student transcripts as a means to communicate the student’s readiness for work.<sup>120</sup> Therefore, the College may want to take some cross-discipline institutional learning outcomes as a pilot, and consider a curriculum-mapping project for the CTE certificate programs. This pilot project would help determine the extent to which communications, critical thinking/problem solving, and “soft skills” desired by employers are being taught and assessed. A list of the skills desired by employers is found in the Appendix.

118 Degree Qualification Profile (Lumina Foundation) Retrieved January 25, 2011 from <http://www.luminafoundation.org>

119 Association for Career and Technical Education. What Is Career Ready? Retrieved March 24, 2011 from <http://www.acteonline.org>; Workforce Readiness Initiative (New York, NY: The Conference Board, June 2007)

120 Paul Fain. “Transcript for Work,” Inside Higher Education Retrieved February 12, 2013 from <http://www.insidehighered.com/news>

The College may want to explore additional ways to integrate basic skills with the CTE instruction. A growing body of research literature suggests that teaching basic skills in the context of the disciplinary topic areas is an effective way to teach students how to apply the foundational skills.<sup>121</sup> Distinct from teaching the basic skills curriculum in separate courses, contextualization or integration emphasizes teaching basic skills with direct reference to real world events and practices that commonly occur in the discipline or occupational area.<sup>122</sup> One author has characterized this approach as having these components: (1) interdisciplinary learning; (2) use of students’ informal, out-of-school knowledge; (3) active learning and student collaboration; and (4) authentic assessment.<sup>123</sup> While CTE faculty may routinely assign reading, writing or math tasks, an integrated basic skills approach is different because the teacher also provides procedural knowledge by telling the students how to perform the tasks and models the techniques for them. Developing confidence in the use of these instructional skills will require some professional development effort by the faculty.

The Community College Research Center has completed a literature review of twenty-seven studies about the contextualization/integration concept.<sup>124</sup> Most of the studies compared contextualization with a “business-as-usual” group and found better outcomes for the students who had been offered contextualized

121 CarolLee and Anika Spratley. Reading in the Disciplines: The Challenges of Adolescent Literacy (New York, NY: Carnegie Corporation of New York’s Council on Advancing Adolescent Literacy, 2010)

122 Contextualized Teaching and Learning: A Faculty Primer: A Review of Literature and Faculty Practices With Implications for California Community College Practitioners. (Sacramento, CA: The Research and Planning Group, Spring 2009)

123 Doroles Perin. Facilitating Student Learning Through Contextualization (New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #29, February 2011)

124 Ibid.



funding has been provided for staff development experiences and conference attendance.

With support from the basic skills initiative, the College hired a coordinator for the initiatives and has implemented several strategies in recent years that appear to have had a positive effect. Efforts have been made to expand basic skills course related assistance (tutoring, writing center, supplemental instruction or power study, student tutoring center). The writing center staff offers a workshop series to students, whether enrolled in the writing center or not, and developed an online writing lab (OWL) project. These writing center workshops provide supplemental education to the entire student body.

The Math Department has implemented several strategies to provide students greater opportunities to master the developmental math course content. A classroom clicker project was initiated in the math department. Since 1998 a summer bridge math program was offered to provide students counseling and learning skills as well as math instruction for students who placed into Math 35, Math 45 or Math 65, but it has since been discontinued due to lack of funding. These strategies are consistent with contemporary literature on pedagogy used in math instruction.<sup>130</sup> Very preliminary findings of a Texas community college summer bridge program using experimental research design offers some positive results regarding increased college credits and fewer developmental credits attempted.<sup>131</sup> The Math Department is now considering Quantway as an approach to math instruction for the liberal arts

130 Michelle Hodara. *Reforming Mathematics Classroom Pedagogy: Evidence-Based Findings and Recommendations for the Developmental Math Classroom* (New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #27, 2011).

131 Joshua Pretlow and Claire Mitchell. *Developmental Summer Bridge Programs: Implementation and Early Evidence From A Random Assignment Study* National Center for Postsecondary Research presentation at the Association for the Study of Higher Education Conference 2010.

majors. Promoted by the Carnegie Foundation, Quantway is an accelerated strategy to engage the students more fully in the study of mathematics with a quantitative reasoning focus as they work toward college-level instruction.<sup>132</sup> A second strategy that is being considered comes from the National Center for Academic Transformation. The Math Emporium approach to basic skills instruction has a proven track record to boost student success and persistence.<sup>133</sup>

A SARS Early Alert Referral System has been put into place. The SARS system allows the College to set up an automated notification process that is triggered by instructor input when students in their classes are having difficulties. Such systems are believed to be useful as a tactic to provide assistance to underperforming students.<sup>134</sup> However, recent research has suggested there may be an early alert possibility in the grade mark awarded to students in the developmental curriculum sequences. If the relationship between the grade earned in the prerequisite course and the likely grade to be earned in the follow-on course were explained to students, it may be a useful “early alert” intervention.<sup>135</sup>

Learning community strategies have been implemented and there is ongoing emphasis on target ethnic subpopulations of students. A variant of the learning community strategy, Preparation Achievement Interdependence, and Responsibility (PAIR) courses, has continued to show promise. It is the pairing of a basic skills discipline course with a personal development/learning skills course. Initially,

132 Additional information about Quantway is available at <http://www.carnegiefoundation.org/quantway>.

133 Additional information about the Math Emporium strategy is available at <http://www.thencat.org/R2R/AcadPrac/CM/MathEmpFAQ.htm>

134 Carrie Bourdon and Rozana Carducci. *What Works in the Community Colleges: A Synthesis of the Literature on Best Practice* (Los Angeles, CA: Graduate School of Education, University of California at Los Angeles, December 2002).

135 Robert Johnstone. *Relationship of Grades and Performance in Subsequent Sequenced Courses* Presentation at the Research and Planning Group Conference, April 2011.



review of twelve empirical studies of the compressed strategy, that included student outcome data, has been published by the Community College Research Center.<sup>139</sup> One approach to compression is to offer the basic skills course over a shorter period of time. There are a limited number of English composition courses offered by the college over an eight-week session within the 16-week term. Colleges using this compression approach are Cerritos College in Norwalk, California, the Community College of Denver, Colorado (FastStart program)<sup>140</sup>, and Ivy Tech (a 23-college statewide system) in Indiana.

Some colleges have successfully redesigned multi-course sequences to create a shorter pathway to college coursework such as a one-term integrated developmental reading and writing course that would otherwise take two semesters or a one-term intensive basic skills math course for students who place into Elementary Algebra.<sup>141</sup> This shorter approach in composition is used at Chabot College in Hayward, California. The goal of the math strategy is to prepare students for Elementary Statistics by teaching selective concepts in Algebra that are needed to learn statistics but have the students skip the full Intermediate Algebra course that is commonly listed as a prerequisite. An initiative called Statway is being led by the Carnegie Foundation and involves 19 community colleges, five of which are in California.<sup>142</sup> Colleges using the Statway approach are Mt. San Antonio, Pierce, San

139 Nikki Edgecombe. *Accelerating the Achievement of Developmental Education Students*. (New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #30, 2011).

140 Debra Bragg, et. al. *2010 Follow-up of Community College of Denver FastStart Program*. (Champaign, IL: University of Illinois, Office of Community College Research and Leadership, December 2010).

141 Katie Hern with Myra Snell. *Exponential Attrition and the Promise of Acceleration in Developmental English and Math*. (unpublished document Hayward, CA: Chabot College, 2010).

142 Jenna Cullinane and Philip Uri Treisman. *Improving Developmental Mathematics Education in Community Colleges: A Prospectus and Early Progress Report on the Statway Initiative* (National Center for Postsecondary Research, 2010).

Diego City, American River, Foothill and Los Medanos College in California.

A third approach to compressing is to “mainstream” the basic skills students into freshman composition while providing basic skills instruction in the same term. The Community College of Baltimore County in Maryland has taken students whose placement scores were just below the freshman composition cut-off point and placed a limited number of them into a freshman composition class that is scheduled to meet immediately before a companion developmental course taught by the same instructor. A rigorous evaluation of this project shows extraordinary results that can be attributed to the curriculum and scheduling design.<sup>143</sup> Beyond the structural changes deployed in these approaches, there may be increases in student success associated with changes in pedagogy as preliminary investigation of the accelerated classrooms suggests faculty frequently use diversified instructional approaches that include student-centered activities.<sup>144</sup>

The College might consider continuing its review of success initiatives in light of some recent research on the dynamics of non-academic support that are meant to improve student outcomes across all subgroups of students. By means of reviewing one hundred twenty-eight books, journal articles and reports, four mechanisms that appear to encourage student success were identified: (1) creating social relationships; (2) clarifying aspirations

143 Davis Jenkins et. al. *A Model for Accelerating Academic Success of Community College Remedial English Students: Is the Accelerated Learning Program (ALP) Effective and Affordable?*(New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #21, September 2010). Sung-Woo Cho, et. al. *New Evidence of Success for Community College Remedial English Students: Tracking the Outcomes of Students in the Accelerated Learning Program (ALP)* (New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #53, December 2012).

144 Nikki Edgecombe. *Accelerating the Academic Achievement of Students Referred to Developmental Education*.(New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #30, February 2011).



**Teaching and Learning Priority**  
**Distance education enhancements**

The literature review study found that instructors teaching online courses were usually given a short “crash” course on how to use the institution’s course management system. The College provides course management pedagogy instruction through staff development offerings and the distance education office arranges one-on-one meetings with faculty to help them master the course management system. The research concluded that instructors also need instruction on issues of online quality and pedagogy. Time and attention needs to be given to course design to implement “scaffolding” activities, discussion moderation, and encouragement for struggling students. Merely adding embedded video or online quizzes to the instructional strategy used in a face-to-face environment will not likely result in a successful online learning outcome.<sup>150</sup> The Online Learning Support group provides faculty with instruction regarding online teaching procedures, best practices, and techniques for meaningful and regular contact with students. The College may want to consider using the findings and suggestions from these studies and materials from ACCJC to guide its ongoing review of local distance education policy and practice.

**Assessment of Learning Outcomes Strategies**

As noted previously, the College has made major strides in the articulation of intended learning outcomes at the course, program, general education, and now institutional levels. The outcomes of courses have been mapped to program and institutional level learning outcomes using the CurricUNET and eLumen software

150 Shanna Smith Jaggars. *Online Learning: Does It Help Low-Income and Underprepared Students?* (New York, NY: Columbia University, Teachers College, Community College Research Center Working Paper #26, 2011).

packages. As reported earlier in this Plan, extensive efforts have been made to conduct learning outcomes assessments, report those results, and plan for improvements at the course level. Faculty members engage in a reflective dialogue about assessment findings as SLOs have been part of program review for several years. They chart specific ways to improve the learning experience for students. Assessment results reported in program review are used to review teaching effectiveness and to support requests for human, technology, fiscal and physical resources. When program reviews are sent to the sub-committees of the SCC, SLO assessment findings are used to make institution-wide decisions regarding resources. The campus is well aware of external expectations for progress in this professional responsibility. The College may want to consider ways to promote systematic cross-disciplinary discussions about the assessment results as they pertain to the institutional learning outcomes as those outcomes are often supported by instruction in multiple disciplines.

**Revisiting Technology Support Strategies**

The College goal is to leverage technology resources to facilitate student learning, campus communication, and institutional effectiveness. In the past, the College made investments in supporting classroom instruction and student affairs services through the use of technology. As reported in several interviews, many faculty believe it is time to revisit some of those investments. Requests for the upgrade of classroom support technology have been made. Proposals for the enhancement of the College network and wireless infrastructure are included in the Technology Plan. Plans are also being made to implement mobile computing services that will allow students to use smart phones to access the College administrative computing resources. As noted earlier in this Plan, there is an ongoing effort in the student affairs area and elsewhere



Success.<sup>152</sup>

## **Economic, Workforce and Community Development Priority**

### **Collaboration with Regional Colleges**

With respect to CTE programs the themes from the Chancellor’s Office are unmistakable. Greater regional collaboration is expected and will be rewarded through a new funding strategy that will promote that collaboration. Greater attention to addressing the documented workforce needs of business and industry and fostering vibrant industry advisory groups in the region are also expected

### **Instructional Program Mix**

The College aspires to offer relevant instructional programs. Therefore, the College may want to review its portfolio of program offerings to achieve the best mix or balance of transfer liberal arts, CTE, and basic skills instructional programs to address the educational needs of the immediate communities it serves and San Diego County as a whole. The current mix of instructional programs has been previously discussed in this Plan. However, it is important to note that with the reduction of state support, fiscal difficulties will continue over the next several years. The College may have to consider program consolidations and even greater collaboration with other community colleges in San Diego County to achieve cost savings.

There may be opportunities to provide CTE type of instruction under the umbrella of workforce and economic development initiatives that are grant or privately funded in an effort to be more

<sup>152</sup> Available at <http://www.aspeninstitute.org/policy-work/aspens-prize/guide-effective-practices>

adroit in responding to the needs of local employers.

The College offers a very modest cooperative work experience education (CWEE) along with internships and service learning opportunities as a pedagogy within other courses. The College is interested in expanding the internship and work experience education opportunities but has only assigned one staff member to support those programs. It might be possible to expand these opportunities with the assistance of additional staff. Another expansion possibility might be through a more concerted effort on the part of faculty leaders of CTE instructional programs that would lend themselves to a CWEE learning opportunity.

### **Business Promotion Focus**

The College has a unique combination of administrative units positioned to advance business activity in the immediate College service area as well as in the San Diego-Imperial Counties region.

The Center for International Trade and Development (CITD) addresses the economic and business development priority of the College’s strategic plan by promoting export business from the United States as well as bi-national cooperation in the San Diego-Imperial Valley and Baja California region. It is a grant-funded entity supported by the Chancellor’s Office of Economic and Workforce Development unit and the U.S. Small Business Administration through the State Trade and Export Promotion (STEP) program. In July 2012, the Center celebrated a partnership signing ceremony with the Camara de Negocios Mexico-Americana (CANEMEXA) to formalize support for business owners seeking to begin or expand their businesses into the international marketplace. The agreement marked the beginning of a working relationship between the two entities to strengthen and expand international trade business development in the \$13 billion-sized border market. Ninety-eight



development priority of the College’s strategic plan through its consulting and training programs with small businesses. Experienced business people act as part-time consultants to provide the counseling and training services of the Center. The South County SBDC believes that some office space and consulting meeting rooms at the Chula Vista and perhaps even the Otay Mesa campus locations would assist them to provide services to businesses. Otherwise, the National City location is an ideal central location for both the South County SBDC and the regional Network staff. As is the case with the CITD and SDCOC, the South County SBDC needs ready access to a smart classroom that could hold 40-50 people for business training workshops and some form of a meeting room that could accommodate 40 people on the advisory board.

**Enterprise Zones and Targeted Employment Areas**

The College service area contains several enterprise zones and targeted employment areas. There may be ways in which the College could leverage those designations in its strategic priority efforts to favorably impact the economic, workforce and community development of the area.

Enterprise Zones were created in California in the 1980’s to stimulate business investment in areas traditionally slow in obtaining their fair share of private investment dollars and to increase jobs opportunities in areas of high unemployment. The legislative purpose of the Enterprise Zone Program is to “stimulate business and industrial growth in the depressed areas of the State.” Additionally the program was established to help attract business and industry to the state, to help retain and expand existing state business and industry, and to increase job opportunities for all Californians. There are several tax savings benefits to businesses in these enterprise zones such as:

- Tax credits against the purchase of new manufacturing, assembly, data processing or communications equipment equivalent to the amount of sales or use tax.
- Tax credits on the wages to qualified new employees over a five-year period (up to 50 percent in the first year, 40 percent in the second year, etc.). This credit could exceed \$34,000 per eligible employee.
- The option to accelerate depreciation on business property
- Lenders can take a deduction on the net interest earned from loans made to enterprise zone businesses. Qualified loans include business loans, mortgages and loans from noncommercial sources.
- Businesses get priority for various state programs, such as state contracts and grants, applications for industrial development bonds, expedited permit processing for commercial projects, assistance with recruiting and hiring targeted employees, access to capital through financial assistance programs and access to specialized technical assistance programs.

In 2006-2007 the Cities of San Diego, National City, and Chula Vista combined efforts to create the San Diego Regional Enterprise Zone (SDREZ) that covers portions of all three cities. Portions of the new zone overlap with the Foreign Trade Zone, the Recycling Market Development Zone, the Federal Renewal Communities, and the HUB Zone Program (sponsored by the U.S. SBA). In 2012 the SDREZ and the Targeted Employment Area (TEA) were expanded again to consume greater parts of all three cities.<sup>153</sup>

The state of California designates areas of the state as a TEA

<sup>153</sup> Regional maps and further discussion of the San Diego Regional Enterprise Zone and Targeted Employment Area are found at <http://www.sandiego.gov/sdrez/>

based on high local unemployment data. In San Diego both Imperial Beach City and National City were so designated as of April, 30, 2012. Under federal law, 10,000 immigrant visas per year are available to qualified individuals seeking permanent resident status on the basis of their engagement in a new commercial enterprise. The visa program is popularly called the EB-5 visa program. If the investment in a new commercial enterprise is made in a Targeted Employment Area (TEA), the required investment is decreased to the \$500,000 investment level. The investment must create or preserve at least 10 jobs for U.S. workers, excluding the investor and their immediate family. A TEA is either a “high unemployment area” in an urban setting (being part of a metropolitan statistical area) that has experienced an unemployment rate of at least 150 percent of the national average rate or a “rural area.” Applicants to the EB-5 visa program must demonstrate that they meet all requirements of the program prior to filing with the U.S. Citizenship and Immigration Service (USCIS). If it is determined that the investment criteria is met and properly documented, an investor may be granted conditional permanent residence status for a period of two years. At the end of the conditional period a permanent green card may be issued. An investor may apply for U.S. citizenship five years after the initial grant of conditional permanent residence.

Through the many activities of the College units and programs mentioned above the institution has and will continue to form both public and private partnerships in the service area that will assist the College to advance its economic, workforce and community development strategic priority.





# CHAPTER 9

## PROJECTIONS FOR FUTURE GROWTH











## **B. WSCH Growth and the Future Program of Instruction**

### **WSCH Projections**

State standards for construction and renovation of facilities basically focus on capacity. Capacity, as outlined in the Facilities Planning Manual is correlated with the production of WSCH. WSCH represents the average number of hours of student instruction in a week per class (i.e. 30 students enrolled in a class that meets 3 hours per week is 90 WSCH). Estimating growth in headcounts produces a factor of increased WSCH. This WSCH is then transformed into instructional space or assignable square feet (ASF). Each space type, in this case lecture and/or laboratory, WSCH generates an “appropriate” instructional facility addressed as ASF. While these calculations are established through state standards, other factors must be considered in planning facilities. An additional factor in all planning is adequacy. Adequacy in this context assumes sufficient and/or suitable capacity to provide for an effective learning environment.

### **Space Projections**

An assessment of the current facilities includes the capacity of the instructional program to meet programmatic needs, it reviews the condition of the facilities, and it addresses their adequacy to provide for an effective learning environment. The projections are not intended to dictate curricular content but rather to provide a perspective of what the current curriculum would look like if extended forward. The most important outcome of the forecasting process is to ensure that when a certain level of WSCH is achieved, the College will have in place designated and/or newly constructed facilities to meet demands in both academic and support services.

### **WSCH Projections and the Future Program of Instruction**

The following table projects future WSCH and FTES in benchmark years of 2015, 2020, and 2025. The forecast is in summary form by educational centers and Chula Vista campus of the College. The actual forecasting process, however, was conducted at the discipline/program level. A comprehensive analysis by discipline/program can be found in the appendix of the Facilities Master Plan.

The tables that follow are provided to illustrate some of the linkages between the EMP and the Facilities Master Plan.

Southwestern College- Chula Vista Campus Fall Term WSCH and FTES Projections 2011-2025

Profile  School	Actual Fall Sem 2011			2015			Projected 2020			2025		
	# of Sec	WSCH	FTES	# of Sec	Total WSCH	FTES	# of Sec	Total WSCH	FTES	Sec	Total WSCH	FTES
Arts & Communication	206	23,013.0	767.1	220	24,072.1	802.4	245	27,002.4	900.1	279	30,920.3	1,009.9
Health, Exercise Sci, Athle, Tech	284	32,011.7	1,067.1	291	31,816.9	1,060.6	320	36,503.4	1,216.8	363	42,661.0	1,422.0
Language & Literature (and Academic Dev)	354	37,859.40	1262.0	354	39,601.0	1,320.0	388	45,710.7	1,523.7	423	51,448.9	1,714.9
Mathematics, Science & Engineer	317	42,570.8	1,419.0	332	44,528.6	1,484.3	367	49,563.0	1,652.1	412	55,976.2	1,418.0
Social Science, Humanities & Bus	334	36,817.00	1227.2	348	38,511.7	1,283.7	384	44,481.6	1,482.7	443	51,944.2	1,731.5
Other (Child Dev, Lib, Study Skills)	108	7,765.6	258.9	109	8,124.1	270.8	115	10,093.9	336.5	126	10,998.9	366.6
<b>Campus Total</b>	<b>1,603</b>	<b>180,038</b>	<b>6,001.3</b>	<b>1,654</b>	<b>186,654</b>	<b>6,221.8</b>	<b>1,819</b>	<b>213,355</b>	<b>7,111.9</b>	<b>2,046</b>	<b>243,950</b>	<b>7,662.9</b>

Source: Cambridge West Partnership, LLC



Southwestern College- Higher Education Center- San Ysidro Fall Term WSCH and FTES Projections 2011-2025

Profile	Actual			2015			Projected			2025		
	Fall Sem 2011						2020					
	# of			# of	Total		# of	Total		# of	Total	
School	Sec	WSCH	FTES	Sec	WSCH	FTES	Sec	WSCH	FTES	Sec	WSCH	FTES
Arts & Communication	9	1,029.0	34.3	10	1,076.3	35.9	12	1,228.7	41.0	15	1,411.8	47.1
Health, Exercise Sci, & Tech	24	1,130.1	37.7	20	1,179.1	39.3	21	1,294.5	43.2	23	1,614.5	53.8
Language & Literature	18	2,155.5	71.9	19	2,377.3	79.2	21	2,575.0	85.8	24	2,959.3	98.6
Mathematics, Science & Engineer	28	3351.6	111.7	30	3,505.0	116.8	33	3,830.2	127.7	36	4,598.2	153.3
Social Sci, Humanities & Bus	26	2,280.7	76.0	26	2,404.3	80.1	27	2,618.2	87.3	27	3,127.3	104.2
Health Occupations	47	2,877.6	95.9	51	3,006.4	100.2	58	3,436.3	114.5	64	3,961.7	132.1
Other (Crown Cove, Noncredit)	32	1,092.0	36.4	25	1,148.0	38.3	28	1,311.3	43.7	31	1,494.3	49.8
<b>Center Total</b>	<b>184</b>	<b>13,916.5</b>	<b>463.9</b>	<b>181</b>	<b>14,696</b>	<b>489.9</b>	<b>200</b>	<b>16,294</b>	<b>543.1</b>	<b>220</b>	<b>19,167</b>	<b>638.9</b>

Source: Cambridge West Partnership, LLC



C. Educational Master Plan – Facilities Master Plan Linkages

Division/School/Area/Unit	Current Location	EMP Preliminary Implications for Facilities	FMP Proposal
Superintendent/President and general administration Division	100, 102, 103, 104, 105, 210 buildings	Age and condition of buildings. Additional and better space is required for Institutional Effectiveness, Institutional Technology, and other units reporting to the Superintendent. Provide easier access to services, consolidate general administrative services with other administrative units and provide related short-term parking.	Move the reporting units in this division to a new Administration building located roughly where the present 220 building is positioned. Raze 100's and 210 buildings to open a vista into the campus.

### C. Educational Master Plan – Facilities Master Plan Linkages

Division/School/Area/Unit	Current Location	EMP Preliminary Implications for Facilities	FMP Proposal
Administrative Services Division	1660, 1650, 1620 and other various buildings.	Provide easier access to services, consolidate Administrative Services with other administrative units and provide related short-term parking.	Except for Maintenance, Operations, and Grounds, consolidate the offices now scattered throughout the Chula Vista campus into a common Administration building roughly where the present 220 building is positioned. Remodel and repurpose 1600's buildings for Child Development and Contract Education, Continuing Education and Workforce Development.
Human Resources Division	1100, 1200, 1260 buildings  1670 building	Building age and condition. Clear an area for potential additional parking and circulation, provide better facilities.  Provide easier access to services, consolidate Human Services with other administrative units and provide related short-term parking.	Relocate Maintenance, Operations and Grounds to a new complex near the Child Development Center. Raze buildings.  Consolidate the offices into a common Administration building roughly where the present 220 building is positioned. Repurpose building for Child Development and/or Continuing Education/Workforce Development

C. Educational Master Plan – Facilities Master Plan Linkages

Division/School/Area/Unit	Current Location	EMP Preliminary Implications for Facilities	FMP Proposal
Student Affairs Division	600 and 1400 buildings	Provide easier visual and physical access and consolidate services for students with related short-term parking.	Move the reporting units in this division to a new Student Services building located on the edge of the Chula Vista campus, roughly where the 200 and 210 buildings are presently positioned. Remodel and repurpose 1400 for the Academic Support Center (ASC). Raze 600 building and replace with new Student Union building. Raze and replace current building. New building to house cafeteria, culinary arts, bookstore, data center, health services, veterans' services, and student activities. Renovate and repurpose 630 as temporary swing space.
	610, Student Union /Cafeteria building	Building age and condition, energy consumption problems. Desire to consolidate functions	
	630, Bookstore	Consolidate service into a new Student Union.	













# CHAPTER 10

## APPENDICES







SWOT ANALYSIS	
WEAKNESSES	THREATS
<p>IT infrastructure</p> <ul style="list-style-type: none"> <li>• IT personnel to help</li> </ul> <p>Student Services short staff/faculty no-classroom to serve students (transcripts in evaluations &amp; counseling). Not positioned to go after none traditional funding e.g. workforce development Research staff &amp; Institutionalized Grants (can't promise future funding) Need to facilitate degree/certification completion</p> <ul style="list-style-type: none"> <li>• Use technology?</li> </ul> <p>Website improvements I Need to use social media more</p> <ul style="list-style-type: none"> <li>• No college email for students</li> <li>• Crash system if we try mass email</li> </ul> <p>Drop process, etc. add survey to get information on why students drop</p> <ul style="list-style-type: none"> <li>• Use colleague more to prompt students</li> </ul> <p>Information on employment outlook for any degree or certificate Veteran Services are weak Length of basic skills offerings lower start, less likely to make it to college level Basic skills boot camp for a fee?</p> <ul style="list-style-type: none"> <li>• Shorten the path</li> <li>• External sponsor for the experience</li> <li>• Cuyamaca example?</li> </ul> <p>More info re: internship role</p> <ul style="list-style-type: none"> <li>• So many students 1<sup>st</sup> generation who don't know what to do (college basics)</li> </ul> <p>Online (DE) support services</p>	<p>Budget (state &amp; college)</p> <p>Private College (e.g. Ashford)</p> <p>Remaining competitive in changing external environment Economy</p> <p>Unrealistic Benchmarks (e.g. changing ACCJC Standards &amp; Student Success Task Force) nability to obtain accurate data Level of trust in community</p> <p>Community support</p> <ul style="list-style-type: none"> <li>• How to rebuild</li> </ul> <p>Lack of public transportation</p>

Source: Public Forum November 28, 2012



Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
American Sign Language				
Anthropology	Anthropology	AA Transfer	5.3	65.3
Architecture	Architecture	AS Transfer	5.7	228.3
	Architecture Technology	AA	2.0	51.0
	Architecture Technology- Basic	CT	3.7	15.3
	Architecture Technology-Advanced	CT	0.3	5.7
Art	Art	AA Transfer	6.3	382.3
	Graphic Design	AA Transfer	12.7	294.3
	Photography	AA Transfer	4.7	106.7
	Graphic Applications	CTP	1.5	6.0
	Professional Photography	CT	1.7	10.0
Asian-American Studies	Asian-American Studies	AA Transfer	0.3	7.3
Associate Degree Nursing	Transfer Education/ Preparation for Nursing	AA Transfer	5.0	0.0
	Nursing	AS	63.7	1690.7

Source: Southwestern College Records

### Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Astronomy	Astronomy	AS Transfer	0.0	18.3
Automotive Tech	Automotive Technology	AS	5.3	226.3
	Small Engine and Service Repair	AS	0.0	0.0
	Advanced Emission Specialist	CT	1.7	5.3
	Automotive Brake and Suspension Systems (ABS and Four-Wheel Alignment)	CTP	4.0	16.0
	Automotive Performance Systems	CT	4.0	15.3
	Automotive Technology	CT	5.3	47.3
	Small Engine and Service Repair	CT	0.0	9.0
	Biology	Biology	AS Transfer	6.0
Biotechnology		AS Transfer	6.0	63.3
Biotechnology		CT	6.7	21.3
Step-Up Biotechnology		CTP	0.0	0.0
Business	Business Administration	AA Transfer	0.0	0.0
	International Business A	A	0.0	0.0
	International Business Emphasis	AA Transfer	0.0	0.0

Source: Southwestern College Records

Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Business	Finance	AA Transfer	6.3	53.0
	Management	AA Transfer	6.0	75.7
	Marketing	AA Transfer	2.7	83.0
	eBusiness	AS	0.0	0.0
	Entrepreneurship and Small Business Management	AS	1.0	85.3
	eBusiness- Basic	AS	2.3	157.0
	eBusiness- Intermediate	CTP	0.0	0.0
	Entrepreneurship and Small Business-Basic	CT	0.0	0.0
	Entrepreneurship and Small Business- Intermediate	CTP	0.5	2.0
	Financial and Investment Services-Basic	CT	0.7	8.0
	Management-Basic	CTP	0.8	3.0
	Management-Intermediate	CTP	3.3	13.0
	Entrepreneurship Ed.- Automotive Technology Emphasis	CT	1.7	14.3
	Entrepreneurship Ed. - Event and Convention Planning Emphasis	CTP	0.0	0.0
	Entrepreneurship Ed.- Landscape Construction Emphasis	CTP	0.0	0.0
	Entrepreneurship Ed. - Recording Arts Emphasis	CTP	0.0	0.0
	Entrepreneurship Ed. - Web Design Emphasis	CTP	0.0	0.0
	OIS: Office Information Systems Professional	AS	3.0	25.7

Source: Southwestern College Records



Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Business	Legal Office Professional	AS	0.0	14.7
	Legal Office Professional- Bilingual (English/ Spanish)	AS	0.3	23.0
	Legal Office Professional-Bilingual (English/Spanish)-Basic	CT	0.7	1.0
	Legal Office Professional-Basic	CTP	0.0	0.0
	Business Law Specialty	CT	0.0	0.0
	Civil Litigation Specialty	CT	0.0	0.0
	Civil Litigation Specialty (Bilingual)	CT	0.0	0.0
	Criminal Law Specialty	CT	0.0	0.0
	Family Law Specialty	CT	0.0	0.0
	Family Law Specialty (Bilingual)	CT	0.0	0.0
	Immigration Law Specialty	CT	0.3	0.0
	Immigration Law Specialty (Bilingual)	CT	0.3	0.0
	International Business Law Specialty	CT	0.0	0.0
	International Business Law Specialty (Bilingual) C	T	0.0	0.0
	International Business-Intermediate	CT	0.0	17.3
	International Business-Basic	CTP	0.0	0.0
	Wills, Trusts, and Estates Specialty	CT	0.0	0.0

Source: Southwestern College Records

### Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Business	International Logistics and Transportation A	S	0.0	1.3
	International Logistics and Transportation- Basic	CT	0.0	0.0
	International Logistics and Transportation-Intermediate	CT	0.0	0.0
	Community, Economic and Urban Development	AS	0.0	3.7
	Community, Economic and Urban Development-Basic	CT	0.0	1.0
	Community, Economic and Urban Development- Intermediate	CT	0.0	0.0
Certified Nursing Asst	Certified Nursing Assistant (CNA)	CTP	0.5	2.0
Chemistry	Chemistry	AS Transfer	0.3	110.0
	Pharmaceutical and Laboratory Science	AS	0.7	40.3
	Pharmaceutical and Laboratory Science	CT	1.3	16.7
Child Development	Child Development	AA Transfer	9.3	670.0
	Child Development Teacher	AA	30.0	410.3
	Child Development Teacher Permit	CT	22.7	59.3
	Family Childcare-Bilingual (English/Spanish)	CTP	3.8	15.0
	Family Support Specialist	CTP	0.5	2.0
	Spanish-to-English Associate Teacher Certificate	CTP	16.3	65.0

Source: Southwestern College Records

Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Chinese Communication	Communication A	A Transfer	3.0	220.3
	Communication Studies for Transfer SB1440	AA Transfer	0.0	0.0
Computer Aided Design	Computer Aided Design and Drafting	AS	0.0	0.0
	Design Technology	AS	0.0	10.3
	Computer Aided Design and Drafting-Basic	CTP	1.3	5.0
	Computer Aided Design and Drafting- Advanced	CT	0.0	0.0
	Design Technology	CT	0.7	2.3
Computer Information Systems	Information Systems	AA Transfer	2.0	36.7
	CIS- Computer Programming With an Emphasis on Applications	AS	0.7	57.3
	Computer Information Systems	AS	0.0	0.0
	CIS-eCommerce Emphasis A	S	0.0	1.7
	CIS-Internet Emphasis	AS	0.0	6.7
	CIS -Interwork Technician Emphasis	AS	1.3	41.3
	CIS-Microcomputer Applications Emphasis	AS	0.7	9.0
	CIS-Operations/PC Support Specialist Emphasis	AS	0.0	0.0
	CIS-Systems Programming Emphasis	AS	0.7	12.3
	CIS-Web Flash Developer and Gaming Animator	AS	1.0	0.0
	CIS- Web Site Designer and Developer	AS	3.7	0.0

Source: Southwestern College Records

### Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Computer Information Systems	CIS- Web Site eCommerce Administrator	AS	0.0	0.0
	Microcomputer Office and Technical Support Skills	AS	0.3	14.7
	CIS-Computer Programming With an Emphasis on Applications-Basic	CT	0.7	17.7
	CIS-Computer Programming with an Emphasis on Applications-Advanced	CT	0.3	5.7
	CIS-eCommerce Emphasis-Basic	CTP	0.0	0.0
	CIS-eCommerce Emphasis-Advanced	CT	0.0	0.0
	CIS-Entry-Level Database Administrator	CT	0.0	0.0
	CIS-Internet Emphasis-Basic	CTP	0.0	0.0
	CIS-Internet Emphasis-Advanced	CT	0.0	1.0
	CIS-Internetwork Technician Emphasis- Basic	CTP	2.0	8.0
	CIS- Internetwork Technician Emphasis-Advanced C	T	0.0	5.0
	CIS -Microcomputer Applications Emphasis- Basic	CTP	0.0	0.0
	CIS-Microcomputer Applications Emphasis-Advanced	CT	0.7	1.3
	CIS-Operations/PC Support Specialists Emphasis-Basic	CTP	0.3	1.0
	CIS-Operations/ PC Support Specialist Emphasis-Advanced	CT	4.0	8.3
	CIS-Systems Programming Emphasis	CT	0.0	3.0
	CIS-Web Database Programmer/ Administrator-LAM (Linux, Apache, MySQL, PHP)	CTP	0.3	1.0

Source: Southwestern College Records

Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
	CIS-Web Designer	CTP	7.8	31.0
	CIS-Web Flash Designer	CTP	3.5	14.0
	CIS-Web Flash Developer and Gaming Animator	CT	1.3	0.0
	CIS-Web Search Engine Marketer	CT	0.0	0.0
	CIS-Web Shopping Cart Developer	CT	0.0	0.0
	CIS-Web Site Designer and Developer	CT	3.0	0.0
	CIS-Web Site eCommerce Administrator	CT	0.0	0.0
	C++ Certificate	CTP	0.5	2.0
	Microcomputer Office and Technical Support Skills-Basic	CTP	0.0	0.0
	Microcomputer Office and Technical Support Skills-Advanced	CT	0.0	2.7
	Project Management C	TP	1.5	6.0
	Software Quality Assurance	CTP	0.5	2.0
	Virtual Business Office Professional	AS	0.0	0.3
	Virtual Business Professional	CT	0.0	0.0
	Virtual Business Office Support Professional	CT	0.0	0.0
Computer Literacy				
Construction Inspection				
	Construction Inspection	AS	7.0	3.3
	Construction Management	AS	1.3	71.3
	Construction Inspection	CT	18.7	23.0
	Construction Management	CT	1.3	23.0

Source: Southwestern College Records

### Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Culinary Arts	Culinary Arts-Cooking and Baking	AS	3.0	167.0
	Culinary Arts: Cooking and Baking- Advanced	CT	2.3	15.3
	Culinary Arts: Cooking Essentials-Basic	CTP	0.3	1.0
	Professional Baking and Pastry	CT	1.7	43.3
Dance	Dance	AA Transfer	1.7	77.7
Dental Hygiene	Dental Hygiene	AS	29.7	371.7
Economics	Economics	AA Transfer	7.3	100.7
Education	Teacher Education Preparation	CT	1.7	59.3
Electronics	Computer Systems Intensive Certification Training	AS	2.3	27.3
	Electronics-Computer Technician	AS	2.0	15.7
	Electronics-Internetwork Technician	AS	0.3	0.0
	Electronics-Network Administrator	AS	0.7	5.3
	Computer Systems Intensive Certification Training-Basic	CT	2.3	4.7
	Computer Systems Intensive Certification Training-Advanced	CT	3.0	3.3
	Electronics-Computer Technician-Basic	CTP	0.0	0.0
	Electronics-Computer Technician-Advanced	CT	0.0	1.3

Source: Southwestern College Records

Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Electronics	Electronics-Internetwork Technician-Basic	CTP	0.0	0.0
	Electronics-Internetwork Technician-Advanced	CT	0.3	0.3
	Electronics-Network Administrator-Basic	CTP	0.3	1.0
	Electronics-Network Administrator-Advanced C	T	0.3	0.7
	Mobile Electronics-Basic	CTP 0	.0	0.0
Emergency Medical Technology and Paramedic	Emergency Medical Technology and Paramedic	AS	5.7	302.0
	Emergency Medical Technology and Paramedic	CT	22.3	155.7
Engineering	Engineering	AS Transfer	0.0	659.7
English	English	AA Transfer	9.0	366.0
	Literature	AA Transfer	6.0	34.0
English as a Second Language				
Environmental Hazardous Materials Technology	Environmental Management	AS	3.3	36.0
	Occupational Health and Safety	AS	2.7	23.3

Source: Southwestern College Records

Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
	Environmental Management	CT	3.3	19.3
	Occupational Health and Safety	CT	5.0	9.7
Event and Convention Planning	Event and Convention Planning-Basic	CTP	0.5	2.0
	Event and Convention Planning- Advanced	CT	0.3	4.3
Exercise Science	Exercise Science	AA Transfer	4.3	303.7
	Fitness Specialist Certification-Basic	CTP	1.8	7.0
	Fitness Specialist Certification-Advanced	CT	7.0	37.0
Pilipino Fire Science	Fire Science Technology	AS 1	1.0	381.7
	Fire Science Technology	CT	16.0	107.3
French	French	AA Transfer	5.0	29.7
Geography	Geography	AA Transfer	0.7	23.7
	Geographic Information Science- Continuing Students and Working Professionals	CTP	0.5	2.0
	Geospatial Technology Technician	CT	0.0	0.3
Geology	Geology	AS Transfer	0.0	7.3

Source: Southwestern College Records

Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Health				
History	History	AA Transfer	4.0	144.7
Hospitality and Tourism	Hospitality: Culinary Arts-Food Services Management	AS 0	.7	10.3
	Hospitality: Event and Convention Management A	S	0.3	18.3
	Hospitality: Hotel Operations Management	AS	0.3	26.3
	Hospitality: Travel and Tourism Management	AS	0.7	12.0
	Hospitality: Culinary Arts-Food Services Management-Basic	CT	0.7	4.7
	Hospitality: Culinary Arts-Food Services Management-Advanced	CT	0.3	1.7
	Hospitality: Event and Convention Management-Basic	CT	2.0	0.7
	Hospitality: Event and Convention Management-Advanced C	T	0.3	3.3
	Hospitality: Hotel Operations Management-Basic	CT	0.7	3.3
	Hospitality: Hotel Operations Management-Advanced	CT	0.3	2.0
	Hospitality: Travel and Tourism Management-Basic	CT	1.0	2.7
	Hospitality: Travel and Tourism Management-Advanced	CT	0.3	2.0
Humanities	Humanities	AA Transfer	1.3	27.7
Insurance	Insurance	AS	0.0	12.3
	Insurance-Basic	CTP	1.5	6.0
	Insurance-Advanced	CT	0.0	3.7

Source: Southwestern College Records



Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Learning Skills Legal	Paralegal Studies	AS	8.7	84.3
	Paralegal Studies	CT	11.3	29.0
	Paralegal Studies: Bilingual (English/Spanish)	AS	3.7	61.7
	Paralegal Studies: Bilingual (English/Spanish)	CT	3.7	12.7
Library Mathematics	Mathematics	AS Transfer	0.0	0.0
	Mathematics Student Transfer Achievement Reform SB1440	AS Transfer	0.0	0.0
	Computer Science	AA Transfer	1.3	260.3
	Computer Science	AS 1	.0	124.0
	Computer Science	CT	0.3	41.3
Medical Office Professional	Medical Assistant: Administrative	AS	1.0	116.7
	Medical Assistant Clinical	AS	0.3	88.0
	Medical Office Management	AS	0.3	33.7
	Medical Assistant: Administrative-Basic	CT	8.3	33.3
	Medical Assistant: Administrative-Intermediate	CT	1.0	4.7
	Medical Assistant: Administrative Intensive Training	CT	0.0	0.0
	Medical Assistant: Administrative Intensive Training-Bilingual (English/Spanish)	CT	0.0	0.0

Source: Southwestern College Records

Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Learning Skills Legal	Paralegal Studies	AS	8.7	84.3
	Paralegal Studies	CT	11.3	29.0
	Paralegal Studies: Bilingual (English/Spanish)	AS	3.7	61.7
	Paralegal Studies: Bilingual (English/Spanish)	CT	3.7	12.7
Library Mathematics	Mathematics	AS Transfer	0.0	0.0
	Mathematics Student Transfer Achievement Reform SB1440	AS Transfer	0.0	0.0
	Computer Science	AA Transfer	1.3	260.3
	Computer Science	AS 1	.0	124.0
	Computer Science	CT	0.3	41.3
Medical Office Professional	Medical Assistant: Administrative	AS	1.0	116.7
	Medical Assistant Clinical	AS	0.3	88.0
	Medical Office Management	AS	0.3	33.7
	Medical Assistant: Administrative-Basic	CT	8.3	33.3
	Medical Assistant: Administrative-Intermediate	CT	1.0	4.7
	Medical Assistant: Administrative Intensive Training	CT	0.0	0.0
	Medical Assistant: Administrative Intensive Training-Bilingual (English/Spanish)	CT	0.0	0.0

Source: Southwestern College Records

Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Personal Development				
Philosophy	Philosophy	AA Transfer	5.3	58.3
Phlebotomy	Phlebotomy	CTP	0.0	0.0
Physical Science	Physical Science	AS Transfer	0.0	31.3
Physics	Physics	AS Transfer	2.3	39.7
Political Science	Political Science	AA Transfer	7.7	174.0
	Public Administration	AA Transfer	6.3	57.0
Portuguese				
Psychology	Psychology	AA Transfer	51.3	1167.3
Recording Arts	Recording Arts and Technology	AS Transfer	0.0	15.3
	Recording Arts and Technology	CT	0.0	1.0
Reading				
Real Estate	Real Estate	AA Transfer	0.0	31.0
	Real Estate	AS	1.7	46.3

Source: Southwestern College Records

### Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Real Estate	Real Estate	CT	1.3	27.3
	Real Estate-Basic	CTP	1.0	4.0
	Sales Person License	CT	0.3	2.3
Sustainable Energy Studies	Sustainable Landscape Practices	AS	0.0	0.0
	Sustainable Energy Studies	CT	0.0	0.7
Sociology	Sociology	AA Transfer	26.0	263.7
	Social Work	AA Transfer	12.0	251.3
Spanish	Spanish	AA Transfer	0.7	76.3
	Spanish for Bilinguals	AA Transfer	4.0	18.7
	Spanish Proficiency	CTP	4.3	17.0
Surgical Tech	Surgical Technology	AS	3.7	79.0
	Surgical Technology	CT	3.0	46.0
Telemedia	Telemedia	AA Transfer	2.7	115.7
	Telemedia Production Specialist	AS Transfer	3.7	0.0
	Telemedia Technology	AS	1.0	19.0
	Telemedia Production Specialist-Basic	CTP	0.0	0.0
	Telemedia Production Specialist-Advanced	CTP	0.8	3.0

Source: Southwestern College Records

Three-Year Annual Average Completion Rates for Programs

Disciplines	Program	Type	Actuals: AA, AS, CT, CTP Outcomes (2009-10 to 2011-12 average/yr)	Actuals: # Students in Major (2009-10 to 2011-12 average/yr)
Telemedia	Telemedia Technology	CT	3.0	18.7
Theater Arts	Theatre Arts- Performance	AA Transfer	1.0	64.0
Travel and Tourism	Travel and Tourism	AS 0	.7	26.3
	Travel and Tourism-Basic	CT	1.0	0.0
	Travel and Tourism-Advanced	CT	0.3	0.0
Vocational Nursing	Vocational Nursing	AS	6.0	238.0
	Vocational Nursing	CT	15.7	254.7
Other	Baja California Studies	CT	0.0	0.0
	Women's Studies	CT	0.0	7.0

Source: Southwestern College Records