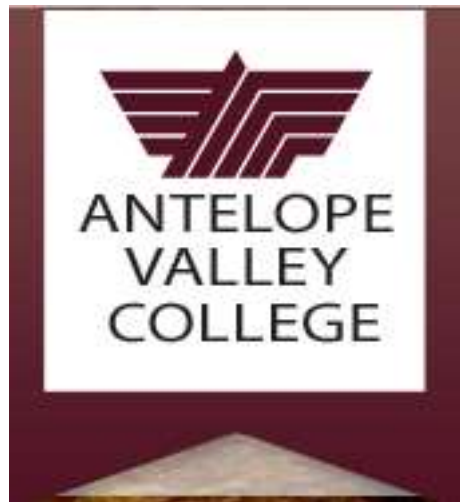


**Antelope Valley Community College District**

# **Educational Master Plan**



Fall 2016  
Cambridge West Partnership, LLC

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## I. Message from the President

The Educational Master Plan is the long term, ten-year planning document for our college. This establishes the broad horizon for programs and direction for the college. Within a three-year strategic planning horizon, tied to the educational master plan, the college lays out its goals and initiatives for the college community – it is intended to be a dynamic, living document in which we are constantly moving forward, revising the plan based on actual performance and matching to the needs of the community we serve.

The master planning process ties together and gives direction to all related, long-term plans of the college: Strategic Plan, Facilities Master Plan, Enrollment Management, Information Technology, Finance and Budget, and Human Resources. The governance structure and processes of the college encourage and support the ongoing, integrated method of planning and implementation, informed by assessment of outcomes achievement through robust program review, and budget allocation to support continuous improvement.

This is a vital process to the growth, adaptability, and sustainability of college programs in service to our community and students. It is a college-wide effort, informed by community needs, that demands active participation by every constituency to ensure success.

My sincerest appreciation and gratitude is extended to all who diligently participate in the planning and review process of our college. The active, peer-review, participatory governance structure of Antelope Valley College is imperative to the integrity of our institution and in keeping our promise to the community.

Ed Knudson  
President



## II. Introduction

During the academic year 2015-2016 the Cambridge West Partnership, LLC and Gensler Architects were invited to assist the College in updating its Educational and Facilities Master Plans. The purpose of the Educational Master Plan (EMP) is to explore the ways in which the College's curriculum options might be optimized to match labor market needs, increase transfer opportunities, and align with community educational needs/interests. A second purpose of the EMP is to provide a projection of future attendance that can be used in the Facilities Master Plan to determine the amount and type of space that will be needed to accommodate the future academic program of instruction and support services. The Facilities Master Plan will cast the projected space need into a sequenced building and facility program that addresses the primary elements of site development and facilities planning through the year 2030.

### Deliverables of the Plan

This Plan will deliver the following:

- Describe environmental factors that impact the future of the College.
- Provide a description and projection of economy and demographics of individuals living in the District service area.
- Identify occupations with projected openings into the future.
- Describe faculty visions for future curriculum and student services visions for anticipated future services.
- Identify general opportunities for instructional program development.
- Evaluate the mix of programs vs. labor market and transfer opportunities.
- Provide a projection of future weekly student contact hours by discipline.

### Framework for the Plan

The planning process principally relied on: (1) an analysis of the external and internal environment of the College including the demographic profile/characteristics; (2) the current and historical performance of the College relative to the areas of academic and support services; (3) the wisdom of those professional educators and administrators who are responsible for delivering the program of instruction and support services; and, (4) input from the consulting teams of Cambridge West Partnership and Gensler Architects.

### Underpinnings

The process for generating the EMP relied heavily on the analysis of the existing program of instruction, the dynamics of the service area, and the vision of future directions articulated by faculty, staff and administrators. It offers a discipline-specific set of recommendations and a broader assessment of the instructional mix of programs.

The 2014 fall semester was used as a "snapshot" in time from which a planning baseline was constructed. Although the College has experienced a downturn in enrollments from the high point of fall 2009, the 2014 fall term was selected as the benchmark because it

was the last complete term of data available to reflect the scope and breadth of the program of instruction and support services.

Analysis was also conducted relative to the demographic and income capacity of the "effective service area" of the College. This was defined as a geographic area with a sufficient and appropriate population base from which students of the future could be drawn. Additionally, a detailed look at the College was provided via an analysis of its external and internal conditions, its past characteristics and trends over a five-year period of fall terms from 2010 to 2014, its current productivity and efficiency, and its future needs for space.

At the present time the College offers a comprehensive curriculum at the approximately 135-acre main campus in Lancaster and an array of offerings at the smaller Center located in the City of Palmdale. Of the 93 active buildings at the Lancaster site, 21 were constructed in the 1960s. Four others were erected in 1994 or 1995. The final six primary instructional buildings were constructed between 2002 and 2009. A large number of ancillary support structures were built in 2009 to complete the present campus construction.

The Center at Palmdale operates from leased spaces representing just over 18,000 assignable square feet of classrooms, offices, and reading/study rooms for the Learning Resources Center.

Forecasting the future program of instruction was based on determining weekly student contact hours (WSCH) in fall 2014, while the future space needs were largely predicted after defining a future program of instruction.

### Activities

The development of the Plan included the following activities:

- Referencing and use of the College data files for student basic demographics and enrollment information.
- A review of the history and evolution of the College.
- An environmental assessment (environmental scan) to consider the present and anticipated impacts both within and outside the College's service area.
- The development of a "vision for the future of instructional programs and delivery of student services" derived from qualitative analyses.
- The development of growth and enrollment estimates extending to the year 2030.
- A review to assure that access and overall success of underprepared and underrepresented groups within the community were considered in the planning process.

The EMP is presented with the intent that it will serve as an educational programming blueprint for the College over the next ten years and as a facilities blueprint out to the year 2030.

### III. College History and Overview

#### A Short History and Overview

Antelope Valley College held its first classes on Sept. 10, 1929 as an extension of Antelope Valley Joint Union High School in Lancaster. Then known as Antelope Valley Junior College, the College was established by high school officials as a way to provide local residents with access to the first two years of a college education in what was then a remote, rural area. The average daily attendance at the college was 13 during the 1929-30 school year. The stock market crash in October 1929 and subsequent Great Depression led to challenging times for the new institution. The College shared classrooms in the same building with Antelope Valley High School on the existing high school campus site.

Average daily attendance (ADA) at the college reached 100 by 1939. However, with the outbreak of World War II, attendance plummeted to the same level as the first year of the college. Thankfully, enrollment began to grow steadily after the end of the war, partly due to the GI Bill of Rights that provided higher education opportunities to veterans and partly because Antelope Valley began developing an aircraft industry. At that time the College launched its first vocational programs as it moved toward becoming the comprehensive community college it is today.

In 1957 the College's first president was hired as a growing step away from directors who oversaw the College prior to that time. Groundbreaking was held in September 1959 for a new college campus designed to accommodate 1,500 students. Located on 110 acres at Avenue K and 30th Street West, the new campus opened two years later.

In December 1961, local voters approved creation of a separate community college district. July 1, 1962 marked the official start of the new college district. In the 1970s, the campus added a black-box theater, music building, consumer education building and arts building surrounding what is known as the Fine Arts Quad. Other buildings were added on the north side of the campus to accommodate technical programs such as automotive technology, welding and electronics.

As student enrollment grew during the 1980s, officials secured state money in the early 1990s to construct a library in the heart of the campus and an administration building. More construction followed including a Child Development Center, a two-story Applied Arts Building, a three-story Business Education Building, and a Technical Education Building. Officials continue to expand and update labs and classrooms to serve students. A theater building started construction in 2009. The massive Health and Science Building broke ground in 2010. Over the years the College expanded from 110 to approximately 135 acres through land purchases. Overall fall 2014 enrollment at Antelope Valley College exceeded 14,000 students.

California State University, Bakersfield-Antelope Valley, which has had its own satellite facility at AVC's Lancaster campus since 1995, offers upper division and graduate level programs to over 600 students.

### Palmdale Center

AVC responded to the needs of south valley residents by establishing a Palmdale Site, currently operating from approximately 18,000 square feet on the third floor of a building at 1529 E. Palmdale Blvd., Palmdale. The Center is approximately 10 miles from the main Lancaster campus. In fall 2015 approximately 2,700 students were served at the Palmdale Site. The Palmdale Center provides students with access to key support services including academic tutoring and counseling, financial aid, open computer lab, Office for Students With Disabilities (OSD) program, and library services. There are nine lecture classrooms, one web science laboratory, and one computer instructional classroom/laboratory.

The College has acquired a facility at 2301 East Palmdale Blvd., 2.2 miles east of the current Center location. A more comprehensive facility of 50,7000 square feet is being renovated to open for instruction in spring 2017.



Palmdale Center, Antelope Valley College

## **IV. Philosophy, Vision, Mission, Values, Core Offerings, and Practices**

The College web pages announce the philosophy, vision, mission and values that the institution uses to guide its activities and decisions.<sup>1</sup> The mission statement was revised in fall 2014, the vision statement was reviewed in spring 2015, and values statements were reviewed and revised in 2015-16. The vision and values statements were Board approved in March 2016.

### Philosophy

Antelope Valley College is a comprehensive community college in the California Community College System dedicated to providing services to a broad range of students with a variety of educational goals. Antelope Valley College is dedicated to providing educational programs and services as expressed in the California Master Plan for Higher Education. The College is committed to equal educational opportunity and reinforces that commitment through a program of active affirmation of diversity.

Antelope Valley College is dedicated to meeting the dynamic needs of a changing community. The College addresses the educational needs of a diverse and evolving population. The College recognizes that it is uniquely capable of responding to the requirements of regional business, industry, and public service, as well as the social and cultural needs of the Antelope Valley.

Antelope Valley College affirms the rights of the individual and respects human dignity. The programs and activities of the College foster the individual's ability to think clearly, critically, and independently to meet the demands of an increasingly complex society. The student is the primary concern of the College. The curriculum, activities, and services of the College help students understand their physical, cultural, ethnic, and social environment. The preservation of academic freedom provides a college environment in which students and faculty can examine ideas freely.

This philosophy is reflected in the curriculum, the student-faculty relationships, the services and resources, and the policies of the College.

### Vision<sup>2</sup>

To provide quality education that enriches lives.

### Mission

Antelope Valley College, a public institution of higher education, provides a quality, comprehensive education to a diverse population of learners. We are committed to student success offering value and opportunity, in service to our community.

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<sup>1</sup> Antelope Valley College web pages. Retrieved November 23, 2015 from <https://www.avc.edu/aboutavc/principles>

<sup>2</sup> Antelope Valley College, Strategic Planning Committee. March 18, 2015

### Values<sup>3</sup>

- Education - We are dedicated to students, faculty, staff and alumni in their endeavor for lifelong learning.
- Integrity - We expect honesty, trust, candor and professionalism from one another.
- Excellence - We commit to the highest quality in all our endeavors, being responsive to our community in innovative ways.
- Community - We create and foster relationships between AVC and its diverse constituents: students, faculty, staff, alumni and the community at large.

### *We offer:*

#### Associate Degree Programs

Associate degree programs comprised of general education courses and proficiency requirements that are designated courses in a specific major or area of emphasis.

Associate degrees provide students with “the ability to think and to communicate clearly and effectively both orally and in writing; to use mathematics; to understand the modes of inquiry of the major disciplines; to be aware of other cultures and times; to achieve insights gained through experience in thinking about ethical problems; and to develop the capacity for self-understanding.”

#### Career Technical Programs

Certificate and degree programs comprised of “essential career technical instruction” in a variety of business, technical, and occupational courses designed to enhance students’ knowledge and skills leading to employment, career advancement, certification, and state or federal licensure. We award both Chancellor’s Office approved Certificates of Achievement and locally approved Certificates of Proficiency.

#### Transfer/General Education Courses

Transfer/general education courses in communication and critical thinking, the physical and biological sciences, arts and humanities, social and behavioral sciences, and technical education are offered. Completion of these courses allows students to fulfill degree requirements or enroll in upper division courses and programs at accredited four-year institutions through our articulation agreements.

#### Basic Skills Courses

Basic skills courses in reading, writing, mathematics, English as a Second Language, and learning and study skills. These courses offer students essential foundation skills that are necessary for success in college-level degree applicable courses.

#### Student Support and Instructional Support

A variety of services are provided in academic, career, personal counseling, library instruction, course support, and learning assistance. These services support the needs of students in pursuing and achieving their educational goals.

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<sup>3</sup> Antelope Valley College, Strategic Planning Committee. January 20, 2016

### Workforce Preparation and Economic Development

Workforce programs, job preparation courses (non-degree applicable) and a variety of services that contribute to the educational and economic well being of the community are provided.

### Personal Enrichment and Professional Development

Community service offerings, non-credit, not-for-credit classes and services that develop the knowledge, skills and attitudes necessary for students to be effective members of the community are provided. These classes enhance the community's social, cultural, and economic wellbeing. Non-credit course offerings may lead to a Certificate of Completion and/or Certificate of Competency.

### Practices

- Students and learning are primary in decision-making.
- Mutual respect and courtesy is the basis of our relationships.
- Professional standards, collaboration and teamwork are demonstrated.
- Innovation, accomplishments and creativity are recognized and rewarded.
- Open access to educational programs is provided to meet student needs.
- Safe physical environment and a secure infrastructure improve and supports student success and learning.
- Stewards of the college place service to the institution and community above self-interest.
- We strive to enhance the visibility of the Antelope Valley Community College District.
- We recognize that people make up the college and value them as individuals.



## V. Environmental Scan

### A. Scan of Conditions External to the College

#### The College in Context to its Environment

The official Antelope Valley Community College District boundaries cover some 1,945 square miles of semiarid land located north of the San Gabriel Mountains that separate the Antelope Valley from the Los Angeles basin and southeast of the Tehachapi Mountains that define the southern border of the San Joaquin Valley. The District official service area represents 40 percent of the land within Los Angeles County plus a small portion of the southwestern part of Kern County. The District consists of two campus locations. The main College campus is located in Lancaster on 135 acres at 3041 W. Ave. K. A second site is located on the third floor of 1529 E. Palmdale Avenue at 15<sup>th</sup> Street East in Palmdale. The two principle cities in the Antelope Valley region are Lancaster and Palmdale. Over eighty percent of the Antelope Valley population resides in the two cities. Distances from the main campus location to neighboring community colleges are found in Appendix A.

#### Economy and Employment

The California economy is expected to continue its expansion and growth. State revenue is greater than projections in 2014 or 2015. The Legislative Analyst's Office estimated that the State would likely receive another \$3.6 billion more revenue in 2015-16 than the Governor had predicted.<sup>4</sup> For K-14 public education the adverse economic circumstances of the Great Recession seem to have come to a conclusion.

Although the State economy appears to be on the mend and unemployment levels continue to diminish, a recent report from the Public Policy Institute of California (PPIC) observed that if recent trends in higher education and the economy were to continue, by 2025 the State is likely to face a greater shortage of workers who have some college education but less than a bachelor's degree. Their projections, and those of the Centers of Excellence, are that the requisite number of workers with some college education may be as high as 1.4 million to replace workers who will retire. The expected growth of the state economy is projected to create one million new middle-skill jobs by 2025. Together, these needs are even larger than the projected one-million-worker shortage of college graduates with a bachelor's degree.<sup>5</sup> The analysis affirms that training beyond high school has become increasingly valuable in the labor market.

The State's economic upturn has been slow to reach the Antelope Valley where the key industrial clusters of logistics, construction and manufacturing were particularly hit hard

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<sup>4</sup> Jim Miller. "Legislative Analyst Predicts California Revenue Will Exceed Revised Budget Estimate by \$3 Billion," *Sacramento Bee*. May 18, 2015

<sup>5</sup> Sarah Bohn, "California's Need for Skilled Workers," Public Policy Institute of California, September 2014 and "California's Future-Higher Education." February 2015. Centers of Excellence. *Focus on 2025: A 10-year Middle-Skill Occupational Outlook for California*. Retrieved 4/17/16 from <http://doingwhatmatters.cccco.edu>

in the downturn. The subprime mortgage crisis and related wave of foreclosures and collapsing home prices only added to the misery. At its worst, residents living in the cities of Lancaster and Palmdale witnessed over 7,300 foreclosures in 2008. For much of the period from 2008 to 2013 much of the Antelope Valley region was declared a Labor Surplus Area (LSA) by the U.S. Department of Labor. The average unemployment rate was at least 20% higher than the national unemployment rate for a period of two calendar years.<sup>6</sup>

But, the future is looking brighter. Between 2012 and 2022 the California Employment Development Department (EDD) projects a 12.8% increase in jobs in Los Angeles County. Twelve of the thirteen non-farm industrial sectors will contribute to that growth. The greatest growth is concentrated in four industrial sectors: (1) educational services (private), health care, and social assistance; (2) professional and business services; (3) leisure and hospitality; and, (4) trade, transportation, utilities. The following table documents the projections in Los Angeles County for employment opportunities by industry category.

Table \_\_: Los Angeles County Projected Job Openings by Industry

| North American Industry Classification System<br>(NAICS) Categories | Employment<br>Change 2012<br>to 2022 | Annual Job<br>Openings | Annual<br>Average %<br>Change |
|---------------------------------------------------------------------|--------------------------------------|------------------------|-------------------------------|
| Self Employed                                                       | 23,900                               | 2,390                  | 0.84%                         |
| Unpaid Family & Private Household                                   | 300                                  | 30                     | -0.15%                        |
| Farm                                                                | 300                                  | 30                     | 0.56%                         |
| Mining and Logging                                                  | 400                                  | 40                     | 0.93%                         |
| Construction                                                        | 32,900                               | 3,290                  | 3.02%                         |
| Manufacturing                                                       | -52,000                              | -5,200                 | -1.42%                        |
| Trade, Transportation, Utilities                                    | 97,000                               | 9,700                  | 1.27%                         |
| Information                                                         | 20,300                               | 2,030                  | 1.06%                         |
| Financial Activities                                                | 15,500                               | 1,550                  | 0.74%                         |
| Professional & Business Services                                    | 105,900                              | 10,590                 | 1.86%                         |
| Education (Private), Health Care, & Social Assistance               | 191,300                              | 19,130                 | 2.84%                         |
| Leisure and Hospitality                                             | 80,600                               | 8,060                  | 1.94%                         |
| Other Services                                                      | 16,300                               | 1,630                  | 1.15%                         |
| Government                                                          | 20,800                               | 2,080                  | 0.37%                         |
| <b>Total</b>                                                        | <b>553,500</b>                       | <b>55,350</b>          | <b>1.28%</b>                  |

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

<sup>6</sup> Meeta Goel and Svetlana Deplazes, Department of Institutional Effectiveness, Research, and Planning, Antelope Valley College. *2014 Antelope Valley Labor Market Study*. Greater Antelope Valley Economic Alliance; Southern California Association of Governments. *2015 Local Profiles Reports- Cities of Lancaster and Palmdale*. May 2015.

The EDD also projects a 12.6% increase in jobs among the three counties in the DWM South Central Coast Region (San Louis Obispo, Santa Barbara, Ventura). The greatest growth is concentrated in the same four industrial sectors as were identified in Los Angeles County: (1) educational services (private), health care, and social assistance; (2) professional and business services; (3) leisure and hospitality; and, (4) trade, transportation, utilities. The following table documents the projections in this region for employment opportunities by industry category.

Table 1: South Central Coast Region Projected Job Openings by Industry

| <b>North American Industry Classification System<br/>(NAICS) Categories</b> | <b>Employment<br/>Change 2012<br/>to 2022</b> | <b>Annual<br/>Job<br/>Openings</b> | <b>Average<br/>Annual %<br/>Change</b> |
|-----------------------------------------------------------------------------|-----------------------------------------------|------------------------------------|----------------------------------------|
| Self Employed                                                               | 2,600                                         | 260                                | 0.48%                                  |
| Unpaid Family & Private Household                                           | -200                                          | -20                                | -0.71%                                 |
| Farm                                                                        | 10,300                                        | 1,030                              | 2.02%                                  |
| Mining and Logging                                                          | 2,500                                         | 250                                | 3.13%                                  |
| Construction                                                                | 6,200                                         | 620                                | 3.33%                                  |
| Manufacturing                                                               | 5,000                                         | 500                                | 1.04%                                  |
| Trade, Transportation, Utilities                                            | 16,500                                        | 1,650                              | 1.63%                                  |
| Information                                                                 | 1,200                                         | 120                                | 1.14%                                  |
| Financial Activities                                                        | 4,900                                         | 490                                | 1.62%                                  |
| Professional & Business Services                                            | 16,600                                        | 1,660                              | 2.43%                                  |
| Education (Private), Health Care, & Social Assistance                       | 18,500                                        | 1,850                              | 2.51%                                  |
| Leisure and Hospitality                                                     | 16,000                                        | 1,600                              | 2.24%                                  |
| Other Services                                                              | 2,700                                         | 270                                | 1.39%                                  |
| Government                                                                  | 6,900                                         | 690                                | 0.68%                                  |
| <b>Total</b>                                                                | <b>109,700</b>                                | <b>10,970</b>                      | <b>1.66%</b>                           |

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

The EDD projects a 14.7% increase in jobs throughout the eastern part of Kern County. The greatest growth is concentrated in the same four industrial sectors as were identified in the South Central Coast Counties plus one more: (1) educational services (private), health care, and social assistance; (2) professional and business services; (3) leisure and hospitality; and (4) trade, transportation, utilities; and, (5) farm. The following table documents the projections in this region for employment opportunities by industry category.

Table 2: Kern County Projected Job Openings by Industry

| North American Industry Classification System<br>(NAICS) Categories | Employment<br>Change 2012 to<br>2022 | Annual Job<br>Openings | Annual<br>Average %<br>Change |
|---------------------------------------------------------------------|--------------------------------------|------------------------|-------------------------------|
| Self Employed                                                       | -800                                 | -80                    | -0.35%                        |
| Unpaid Family & Private Household                                   | -200                                 | -20                    | -1.11%                        |
| Farm                                                                | 7,400                                | 740                    | 1.36%                         |
| Mining and Logging                                                  | 200                                  | 20                     | 0.15%                         |
| Construction                                                        | 2,400                                | 240                    | 1.44%                         |
| Manufacturing                                                       | 3,000                                | 300                    | 2.24%                         |
| Trade, Transportation, Utilities                                    | 7,800                                | 780                    | 1.72%                         |
| Information                                                         | 200                                  | 20                     | 0.74%                         |
| Financial Activities                                                | 1,400                                | 140                    | 1.61%                         |
| Professional & Business Services                                    | 6,800                                | 680                    | 2.57%                         |
| Education (Private), Health Care, & Social Assistance               | 8,900                                | 890                    | 2.89%                         |
| Leisure and Hospitality                                             | 4,900                                | 490                    | 2.27%                         |
| Other Services                                                      | 1,100                                | 110                    | 1.53%                         |
| Government                                                          | 4,500                                | 450                    | 0.77%                         |
| <b>Total</b>                                                        | <b>47,600</b>                        | <b>4,760</b>           | <b>1.47%</b>                  |

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

The greater Antelope Valley region, east of the Tehachapi Mountains into the southeastern portion of Kern County up to Ridgecrest, has long been recognized for aerospace manufacturing, defense industry, and research and development. It seeks to become known for developing advanced materials, building clean transportation, crafting high-precision parts, generating fresh, green energy and adding value to innovative agricultural products.<sup>7</sup> A comprehensive assessment of the regional labor market and economy can be found in the 2014 Antelope Valley Labor Market Study.<sup>8</sup> A listing of major employers in the greater Antelope Valley region is found in Appendix B.

The workforce, by industry, in the more immediate area served by the College is described in the following two tables. The tables account for 233,516 working adults in the workforce who are age 16 or older.

<sup>7</sup> Greater Antelope Valley Economic Alliance. 2015 Economic Roundtable Report

<sup>8</sup> Meeta Goel and Svetlana Deplazes, Department of Institutional Effectiveness, Research, and Planning, Antelope Valley College. 2014 *Antelope Valley Labor Market Study*. Greater Antelope Valley Economic Alliance.

Table 3: Antelope Valley College Effective Service Area 2015 Employment by Industry

| <b>North American Industry Classification System (NAICS) Category</b> | <b>% Employed</b> |
|-----------------------------------------------------------------------|-------------------|
| Agriculture/Mining                                                    | 1.3%              |
| Construction                                                          | 7.4%              |
| Manufacturing                                                         | 10.9%             |
| Wholesale Trade                                                       | 2.1%              |
| Retail Trade                                                          | 12.3%             |
| Transportation/Utilities                                              | 5.1%              |
| Information                                                           | 3.0%              |
| Finance/Insurance/Real Estate                                         | 5.1%              |
| Other Services                                                        | 45.2%             |
| Public Administration                                                 | 7.6%              |

Source: Environmental Systems Research Institute, Market Profile, 2015; analysis by Cambridge West Partnership, LLC

Table 4: Antelope Valley College Effective Service Area 2015 Employment by Occupational Group

| <b>Occupation Group</b>         | <b>% Employed</b> | <b>Category %</b> |
|---------------------------------|-------------------|-------------------|
| White Collar                    |                   | 56.9%             |
| Management/Business/Financial   | 12.1%             |                   |
| Professional                    | 19.8%             |                   |
| Sales                           | 11.1%             |                   |
| Administrative Support          | 13.9%             |                   |
| Services                        |                   | 20.0%             |
| Blue Collar                     |                   | 23.0%             |
| Farming/Forestry/Fishing        | 0.6%              |                   |
| Construction/Extraction         | 6.2%              |                   |
| Installation/Maintenance/Repair | 5.0%              |                   |
| Production                      | 5.3%              |                   |
| Transportation/Material Moving  | 6.0%              |                   |

Source: Environmental Systems Research Institute, Market Profile, 2015; analysis by Cambridge West Partnership, LLC

In late October 2015 the Department of Defense announced a contract award to the Northrop Grumman Corporation to build the U.S. Air Force's next-generation Long Range Strike Bomber (LRS-B). The award is considered to be an industry-shaping deal that will breathe new life into the Northrop Grumman organization, the sixth-largest defense company. The contract, which is expected to top \$55 billion over the life of the program, is anticipated to keep the corporation's Palmdale facility "afloat." For security

reasons the subcontractors for engines, avionics, and other major subsystems on the project were not disclosed.<sup>9</sup>

One of the striking features of the economic dynamics in the region is the significant numbers of workers who commute from the Antelope Valley region into Los Angeles County and beyond. In the case of Lancaster, approximately 30% of the residents work in the city while 71% commute to other places. In the instance of Palmdale, approximately 16% of the residents work in the city while 84% commute to other places. The following table illustrates the top ten commuting destinations for residents of Lancaster and Palmdale.

Table 5: Top Ten Commuting Destinations, 2011

| Jurisdiction            | Lancaster     |                      | Palmdale      |                      |
|-------------------------|---------------|----------------------|---------------|----------------------|
|                         | # Commuters   | % of Total Commuters | # Commuters   | % of Total Commuters |
| Lancaster               | 11,608        | 29.16%               | 4,950         | 11.76%               |
| Los Angeles             | 8,575         | 21.54%               | 12,221        | 29.03%               |
| Palmdale                | 3,886         | 9.76%                | 6,583         | 15.64%               |
| Burbank                 | 1,643         | 4.13%                | 1,586         | 3.77%                |
| Santa Clarita           | 1,089         | 2.74%                | 1,952         | 4.64%                |
| Glendale                | 415           | 1.04%                | 563           | 1.34%                |
| Simi Valley             | 409           | 1.03%                | 402           | 0.96%                |
| Long Beach              |               |                      | 415           | 0.99%                |
| Pasadena                |               |                      | 391           | 0.93%                |
| El Segundo              | 406           | 1.02%                |               |                      |
| Unincorporated          | 391           | 0.98%                |               |                      |
| San Diego               | 347           | 0.87%                | 386           | 0.92%                |
| All Other Jurisdictions | 11,033        | 27.72%               | 12,642        | 30.03%               |
| <b>Total</b>            | <b>39,802</b> |                      | <b>42,091</b> |                      |

Source: U.S. Census Bureau, 2014, Longitudinal-Employer Household Dynamics Program, LODES Data, 2011 as cited in the Southern California Association of Governments. *2015 Local Profiles Reports- Cities of Lancaster and Palmdale*. May 2015.

Much of the Antelope Valley falls within the jurisdiction of Los Angeles County. In June 2016, the Los Angeles County Board of Supervisors approved an Antelope Valley Area Plan for the long-term development of the region. The plan excludes the cities of Lancaster and Palmdale. It seeks to preserve the rural character of the region while fostering rural town centers and areas of economic opportunity along two proposed major transportation corridors. The first proposed corridor is a high desert multi-purpose transportation link between state roads 14 and 18 to connect Lancaster to the town of Apple Valley through Palmdale, Adelanto and Victorville. The second proposed corridor

<sup>9</sup> Laura Seligman and Andrew Clevenger. "Northrop Grumman Wins Air Force's Long Range Strike Bomber Contract." Defense News.com. October 27, 2015.

is a substantial upgrade to state route 138 between Interstate 5 and state route 14. Although it is not operational at this time, the Palmdale Airport is envisioned to become a regional commercial facility. Until the airport is developed, the Area Plan calls for industrial and commercial development on land that would not conflict with the eventual airport development.

The east valley areas of economic opportunity are described in the Area Plan as being along the high desert corridor in the existing communities of Lake Los Angeles, Sun Village, Littlerock, Pearblossom, Llano, and Crystalair. The central valley, north of Fox Air Field along Avenue D and state route 14, is the site of the second economic opportunity area. The third economic opportunity area is found along the state route 138 upgrade in the west valley where a very large master-planned housing development is proposed. The Area Plan acknowledges that this portion of the valley will need a specific sub-area development plan.<sup>10</sup> However, the environmental group, Center for Biological Diversity, filed a lawsuit to block the implementation of the Area Plan. The Center has concerns about the environmental impact from the large master-planned housing development proposal which the Tejon Ranch Company has suggested would eventually create a 20,000-home community called Centennial along the Los Angeles and Kern County line.<sup>11</sup>

Apart from the mobility, land use, conservation, and open space elements of the Antelope Valley Area Plan, the Los Angeles County Department of Regional Planning and the Greater Antelope Valley Economic Alliance, a public-private partnership dedicated to facilitating economic growth in the region, are promoting economic development in the following focused areas:

- High-tech manufacturing
- Transportation and logistics
- Agriculture
- Renewable energy
- Construction and housing
- Recreation, tourism, filmmaking

One of their major goals is to improve the jobs and housing ratio in an effort to curtail the volume of home-to-work commuting noted earlier.

### *Implications for the College*

1. Future job opportunities, economic growth in construction, and health care/social assistance industries, plus a much improved real estate market with affordable housing characterize the future of the region. *The College can contribute to the economy of the region by preparing students for transfer to four-year institutions and by equipping with the job skills in demand those students who want to “transfer to the workplace” upon completing a certificate or Associate Degree.*

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<sup>10</sup> Los Angeles County Department of Regional Planning. *Antelope Valley Area Plan: Town and Country*. June 2015.

<sup>11</sup> Leon Worden. “Los Angeles County Sued Over Antelope Valley Growth Plan.” *Santa Clarita Valley News*. July 17, 2015.

2. Reasonable employment opportunities in several industry categories (trade, transportation, utilities; professional and business services; health care and social assistance; leisure and hospitality; and construction) are projected to continue into the future. *Although entry-level preparation for many jobs in some of these industries commonly does not require education beyond high school, there may openings for which the College needs to prepare individuals with career and technical certificates and Associate Degrees.*
3. The distinctive mix in the region of advanced manufacturing employers and research and development employers places a premium on Science, Technology, Engineering, Mathematics, and Medicine (STEMM) fields of study. *The College has well-established programs of study in these disciplines but will be called upon to increase the numbers of graduates.*

### Higher Education Policy

Several key policy decisions will influence the California Community College system in the coming years. Although these public policies provide opportunities for the colleges, in some cases they may impose constraints.

### *The Completion Agenda*

In July 2009, President Obama articulated that the American Graduation Initiative (AGI) has a goal of increasing the percentage of U.S. residents who earn high-quality degrees and credentials from the present rate of 39 percent to a rate of 60 percent by the year 2025. The goal is to make the U.S. competitive in the global marketplace. In the private sector employers have been increasingly screening applicants for employment by requiring college degrees for positions that previously did not require a degree.<sup>12</sup>

After President Obama 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 leaders in 34 states to ensure that a greater number of students acquire degrees.

The President's challenge to the nation has not been ignored in California. In response to the national graduation goal, the Community College League of California (CCLC) launched an "alternative futures" project, 2020 Vision for Student Success, to identify 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 to 2025. That translates to producing an *additional* 23,000 degrees and certificates per year, a 5.2% annual increase.<sup>13</sup> The California Public Policy Institute has repeatedly informed state policy makers that the State faces a skills gap.<sup>14</sup>

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<sup>12</sup> Doug Lederman. "Credential Creep Confirmed" Inside Higher Education. September 9, 2014; 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>13</sup> 2020 Vision: A Report of the Commission on the Future, (Sacramento, CA: Community College League of California, 2010)

<sup>14</sup> Public Policy Institute of California. *California's Future: Higher Education*. January 2016 and *Higher Education in California*. April 2016.



In August, 2014, the Board of Governors for the California community college system joined in the completion effort by announcing a goal to increase the numbers of students earning certificates, degrees, or transferring to four-year institutions by nearly a quarter of a million over the next ten years. For academic year 2013-14 the system awarded 190,314 certificates and degrees, a 40 percent increase from 2009-10 and an all-time high for the system. The Gates, Ford, Lumina, and Kellogg Foundations, as well as the Carnegie Corporation of New York, fund work to promote more college graduates. Collectively, there are more than two-dozen major entities that have sponsored initiatives to promote college completion.<sup>15</sup>

### *Federal Policy and Funding Initiatives*

The Congress passed the Higher Education Opportunities Act in 2008. Subsequently, 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. The Higher Education Act has been due for renewal and no one can predict its future direction.

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. Although the Act has not yet been renewed, the desired new directions will promote greater alignment between CTE programs and labor market needs as well as collaboration with K-12 and employers. Differences in the current provisions of the Perkins Act and the proposed changes were announced as long ago as April 2012.<sup>16</sup>

In July 2014 the Congress enacted the Workforce Innovation and Opportunity Act (WIOA) by a wide bipartisan majority as the first legislative reform in the past 15 years of the public workforce system. This legislation took effect on July 1, 2015 with regulatory rules written by the Departments of Labor (DOL), Education (DOE), and Health and Human Services (HHS). In general, the legislation eliminates 15 existing federal training programs and focuses on streamlining programs, reporting, and administration. WIOA keeps the basic structure of the prior legislation, with components covering occupational training, adult basic education, literacy and English language acquisition, vocational rehabilitation, and the national system of public employment offices and services. Key features and opportunities of the WIOA legislation include requirements for more unified planning between state and local authorities to address regional labor markets, a common set of performance measures, and promotion of best practices including contextualized adult basic education, ESL, and attainment of industry-recognized certificates.

The White House convened a series of higher education summits in order to promote change in higher education policy and practice. Attention was given to greater access,

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<sup>15</sup> Alene Russell. "A Guide to Major U.S. College Completion Initiatives," American Association of State Colleges and Universities, October 2011.

<sup>16</sup> 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.

particularly for low-income students, the completion agenda, college outcome performance measures, constraints to the ever-rising costs of high education, and other topics of interest to the federal government. To encourage more participation in postsecondary education the President used his 2015 state of the union address to offer a proposal, along the lines of the current policy in Tennessee, that the federal government help each state to make attendance at a community college free of tuition. By mid-spring 2016 there had been launched 27 new free community college programs.<sup>17</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. The long-term impact remains to be seen, but federal aid now has a lifetime limit and is also 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 150% would equate to 90-semester credit hours. Veterans on the G.I. Education Bill may be more limited in the credit hours funded by that program. In the FY2016 budget the President proposed that the maximum award under the Pell Grant program would increase and new rules would require students to make progress in their programs by passing an increasing percentage of their total course load. In a December 2015 budget deal the Congress unexpectedly agreed to increase the Pell grant maximums and provide additional funds to college access programs for needy students (TRIO and GEAR UP). 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 meeting certain conditions and to provide work permits for those children.

### *Regional Accreditation Initiatives*

In part, stimulated by prior federal governmental actions, all regional accrediting bodies are insisting that greater attention be given to student *learning* outcomes.

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

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

Implementation of the new ACCJC 2014 accreditation standards has introduced a number of changes, including the requirement to create a quality focus essay to guide future improvement efforts.<sup>18</sup> The changes also echoed some of the national discussions about educational quality and accreditation.

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<sup>17</sup> White House Press Release. *White House Launches \$100 Million Competition to Expand Tuition-Free Community College Programs that Connect Americans to In-Demand Jobs*. April 25, 2016.

<sup>18</sup> Accrediting Commission for Community and Junior Colleges. *Preparing for A Comprehensive Visit*. Workshop materials presented on October 15, 2014.

### *California Community College Initiatives for Student Success*

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.
- Additional legislation, SB1440 Student Transfer Achievement Reform or STAR Act in 2010, simplified the process of transferring from a community college to a school in the California State University (CSU) system. This program provides a pathway for students to follow so that they can be admitted to a CSU with junior status. It has been complemented by SB440 in 2013, which further incentivizes transfer students to complete an associate degree.<sup>19</sup>

Perhaps the most potentially far-reaching set of recommendations for change in policy and practice were included in the report from the California Community College Chancellor's Office Student Success Task Force. The group proposed eight areas of focus with 22 recommendations. The Legislature passed the Student Success Act (SB 1456) in August 2012 and the governor signed it shortly thereafter. The measure did the following:

- Commissioned the development of a uniform placement exam for students;
- Directed colleges to provide students with orientation, assessment, placement and counseling services;
- Required students to identify an educational goal (such as degree or certificate for transfer to a four-year university) and complete an educational plan;
- Required colleges that receive student support service funds to complete and post a student success scorecard showing how well the campus is doing in improving completion rates, especially by race, ethnicity, gender, and income;
- Established minimum academic progress standards for students to receive Board of Governors fee waivers, but also developed an appeal process.

The Task Force recommendations came in the wake of a severe shortfall in resources for California's public higher education institutions. Therefore, implementation of these ideas was delayed.

Funds allocated for 2015-16 has enabled the Chancellor's Office to provide support to colleges that develop a student success and support plan (formerly matriculation) built around some of the recommendations arising from the Student Success Task Force. The provision of effective core services (orientation, assessment and placement, counseling, academic advising, and early intervention or follow-up for at-risk students) has enabled students to define promptly their educational and career goals, complete more of their courses, persist to the next term, and achieve their educational objectives in a timely manner.<sup>20</sup> As new priority enrollment rules were made effective in fall 2014, one of the incentives for students to complete the core services was the potential loss of priority enrollment or withholding of an enrollment opportunity.

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<sup>19</sup> Campaign for College Opportunity. *Keeping the Promise: Going the Distance on Transfer Reform*. March 2016.

<sup>20</sup> Eva Schiorring and Rogear Purnell. *Literature Review Brief: What We Know About Student Support 2<sup>nd</sup> Ed.* Research and Planning Group of the California Community Colleges. Fall 2012.

The Student Success Task Force recommended the development of a robust common assessment instrument. The assessment services will also include data collection and course placement guidance, but the placement cut scores will remain a local decision. Working groups of faculty from the disciplines of English, Math and ESL have been involved in drafting competencies that address the full range of prerequisite skills found in the curriculum. The common assessment initiative has a “go live” target of the 2016-17 academic year, pending a successful pilot experience.

The effort to exploit technology to support student success blossomed into the Educational Planning Initiative that was launched to help colleges meet the requirements for student success and to support program funding by providing every student an individual comprehensive educational plan. The initiative is also intended to enhance the counseling experience by inducing students to take more responsibility for their educational program plans and to have counseling expertise used only to *verify* the planning. A degree audit system to provide transcript, articulation and curriculum inventory elements is to be provided to help both students and counselors. As a by-product, it is hoped that the numbers of unnecessary units accumulated by students will be reduced. A single sign-on portal is intended to be the student’s point of access to this system that is a service-oriented experience in which some existing services will be complemented by new services yet to be produced. The project has a “go live” target of the 2016-17 academic year, pending a successful pilot experience.

The legislation implementing some of the recommendations of the Student Success Task Force, SB 1456, requires the coordination of student equity plans with student success and support programs. Student equity identifies groups of students needing more help and focuses on services and instruction for new and continuing students through to completion whereas student success and support programs focus on services for entering students and identifies individual students needing more help. Interest in student equity is not new as the Board of Governors adopted a student equity policy in 1992, but financial support for planning and interventions has not always been available or adequate. The traditional populations or variables researched for student equity planning are: age, disability status, gender and ethnicity. In 2014 the Legislature appropriated \$70 million for student equity purposes, and included foster youth, veterans, and low-income students in the targeted populations. It requires specific goals and activities to address disparities, and mandates coordination of them with other categorical programs. Unlike the student success and support program funding, dollars for student equity interventions do not require a match of funds or in-kind effort from the colleges. Funding for both efforts was increased for 2015-16 after the May 2015 budget revision. An additional increase is proposed for 2016-17.

Due to the governor’s interest in online education that in 2013 garnered an appropriation of \$56.9 million over 55 months to launch the Online Education Initiative for the community colleges, a common course management system was launched among the pilot colleges in fall 2015. The initiative is intended to increase access to more online courses offered by community college faculty members and to provide students well-designed resources that will improve their chances of a successful learning experience.

Within the initiative are efforts to assist faculty in several professional development ways such as creating online course content, teaching strategies for the online environment, developing course design standards, and training in course review. Also part of the work in this initiative is to improve student readiness to engage in the learning experience through online instruction and to provide tutoring support for those students. Those two components have had a successful pilot project “go live” in spring 2015.

#### *Adult Education Initiative*

The governor’s initial proposal that the adult education programs be absorbed into the community colleges met with stiff opposition in the legislature. A compromise was fashioned to improve and expand the provision of adult education through regional consortia in order to eliminate redundancy and to craft pathways into higher education for interested students. Instruction in parenting, home economics, and classes for older adults were explicitly excluded from this funding. The 2015 legislation provided a block grant of funds (AEBG) to support action to address adult learners in four areas: (1) elementary and secondary basic skills; (2) ESL and citizenship for immigrant populations; (3) adults with disabilities; and, (4) short-term career and technical education.

#### *Career and Technical Education Initiatives*

In 2012 the Legislature passed SB 1402 which the Governor signed to signal intent to recast and rewrite the economic and workforce education division programs and services. The new direction requires industry sector strategies that align collaboratively with labor markets on a *regional basis*. The Chancellor’s Office translated these policy directions into a four-part initiative called Doing What Matters (DWM) for Jobs and the Economy. Governor Brown has been generous in funding this work and his 2016-17 budget proposals offer \$200 million more to expand access to career and technical education as well as to implement new regional accountability structures.

All consortiums in the Los Angeles, South Central Coast, and Central Valley each selected priority sectors or clusters and emerging sectors as described in the following table. Given its geographic location, AVC has a potential relationship to all three consortia groups.

Table 6: Consortium Priority Sector Choices

| Priority Areas                                                | Consortium Areas |                     |                |
|---------------------------------------------------------------|------------------|---------------------|----------------|
|                                                               | Los Angeles      | South Central Coast | Central Valley |
| <b>Priority Sectors/Clusters</b>                              |                  |                     |                |
| Advanced Manufacturing                                        | X                | X                   | X              |
| Advanced Transportation & Renewables                          | X                |                     |                |
| Health                                                        | X                | X                   | X              |
| Small Business                                                |                  | X                   |                |
| Agriculture, Water & Environmental Technologies               |                  |                     | X              |
| <b>Emergent Sectors/Clusters</b>                              |                  |                     |                |
| Energy (Efficiency) & Utilities                               | X                |                     | X              |
| Information & Communications Technologies (ICT)/Digital Media | X                | X                   |                |
| Agriculture, Water & Environmental Technologies               |                  | X                   |                |
| Global Trade & Logistics                                      |                  |                     | X              |

Source: California Community Colleges, Los Angeles Regional Consortium. Extracted from [doingwhatmatters.cccco.edu/ResourceMap/Los Angeles](http://doingwhatmatters.cccco.edu/ResourceMap/Los_Angeles)

The initial phase of DWM was designed to dovetail with the State Workforce Plan created by the California Workforce Investment Board. Some funding from the DWM initiative was awarded to the regions to enhance existing CTE programs and to support regional collaborative work. The second phase of this initiative applies common accountability metrics to gauge the extent to which the efforts have “moved the needle.” A system of common metrics was then developed that includes student momentum points and leading indicators of success. A third phase promotes bringing innovation and best practices to scale. The overriding message of the DWM initiative is to prompt *collaborative* action within regions to prepare students for work in critical industry sectors.

The 2014-15 State budget provided a one-time pool of \$50 million that helped the DWM initiative incentivize the colleges to develop, enhance, retool, and expand CTE offerings in response to regional labor market needs and to stimulate additional regional collaboration. The proposed budget for 2016-17 offers \$200 million to be allocated among the regions for the work of preparing students to enter the middle-skills workforce.

In 2013 SB 1070 (California Partnership Academies) was enacted to establish an economic and workforce development program for the community colleges. It requires the Board of Governors, the Chancellor’s Office staff, and the colleges to assist economic and workforce regional development centers and consortia to improve, among other things, career-technical education pathways between high schools and community colleges. Contracts and competitive grants funded by the program through 2015 were jointly administered to improve linkages and CTE pathways between high schools and community colleges.

Additional efforts to promote career pathways from high schools to the community colleges were enshrined in the 2014-15 budget as it passed the California Career Pathways Trust Act. Some \$250 million was provided in the form of one-time

competitive grants. These funds were made available to school districts, county superintendents of schools, directly funded charter schools, regional occupational centers or programs operated by a joint powers authority, and community college districts. The Legislature allocated a second round of funding for the Trust with applications for competitive grants implemented in academic years 2015-16 and 2016-17.

In November 2015 the Board of Governors culminated a yearlong effort to revisit the ways in which career and technical education is delivered as a means to prepare students for middle-skills jobs. The Task Force they commissioned provided 25 recommendations in seven broad areas. Full details are available at <http://bit.ly/1pCGOM>. The recommendations are expected to shape policies from the Board of Governors over the next few years.

#### *Inmate Education Initiative*

Senate Bill 1391, Hancock, which became law in September 2014 made a number of changes to rules that apply to inmate education. The Hancock bill permanently removed the open course provisions for inmates in state correctional facilities. Previously, districts offering inmate education had to accept funding at the noncredit rate, regardless of the nature of the course of instruction. SB1391 revised that method of compensation to allow an apportionment claim at the corresponding funding rate for credit and CDCP noncredit instruction, and relieved the districts from using only the positive attendance procedure to keep track of instructional time.

The legislation further required an interagency agreement between the Chancellor's Office and the Department of Corrections. Approved in January 2015, funds for pilot projects to expand access to courses that lead to degrees and certificates were created. That pilot project identified re-entry hub state correctional facilities near a community college. The colleges could seek one-time funding for program development and implementation of inmate education geared toward improving inmates' ability to find employment upon release and to reduce recidivism. The emphasis was upon face-to-face instruction, rigorous assessment, and student services. Four colleges (Lassen, Chaffey, Antelope Valley, and Folsom Lake) were granted a one-year award. Antelope Valley has had a long-standing relationship to the California State Prison of Los Angeles County, located in Lancaster.

Although they are not higher education policy topics, the State of California has made a number of changes to its policies and practices pertaining to corrections institutions to reduce the numbers of those incarcerated. The policy changes directed toward reducing the State prison population may have implications for future enrollments from incarcerated individuals.

#### *Dual Enrollment*

The most recent legislation to promote collaboration, AB 288, signed into law on October 8, 2015 that took effect in January 2016, authorizes the governing board of a community college district to enter into a College and Career Access Pathways (CCAP) partnership with the governing board of a school district. The partnerships are to offer or expand dual

enrollment opportunities for students who may not already be college bound or are from groups underrepresented in higher education. The goal is to develop a seamless pathway from high school to community college for career-technical education or preparation for transfer, improving high school graduation rates, or helping high school students achieve college and career readiness. The following are the highlights of the legislation:

- Community colleges can assign priority enrollment and registration to high school students in a CCAP with no fees to pay;
- Courses during the regular high school day can be restricted to high school students and do not have to meet the normal open enrollment standard;
- Courses with no open seats on campus cannot be offered at high schools through the CCAP;
- Basic skills math and English can be offered through CCAP but only for students who are not at grade level in that subject; and
- Community colleges can claim FTES if the high school student is qualified for full high school apportionment without using hours of the college course.

Many of the initiatives discussed above have benefited from generous funding associated with the continued recovery of the California economy. Apportionment base funding has been restored, categorical funding has been advanced, and one-time funds have been provided. That funding trend continued into the May 2016 revision of the Governor's 2016-17 Budget. However, it is believed that the California economy is nearing the point when a normal economic expansion period should end and resources provided should be used to position each college for the future.<sup>21</sup>

#### *New Growth Funding Formula*

Apart from targeted funds described above, the SB 860 legislation from 2014 impacted the allocation of apportionment funds for growth to the districts by using the new formula in 2015-16. The legislation directed that growth would be based on each community's need for access to their community college as determined by local demographics. Need within each district's official boundaries is determined by two primary factors: number of people within each district who are without a college degree, and the number of individuals who are disadvantaged as evidenced by unemployment and measures of poverty.<sup>22</sup> The AVCCD is projected to have a constrained apportionment growth rate of 2.76%

#### *The General Neighborhood*

The policies and priorities discussed above impact colleges differently. The Antelope Valley CCD is not the only opportunity for a postsecondary education experience open to California residents of this region. The geography of the Tehachapi Mountains to the north and the San Gabriel Mountains to the south create some natural barriers that both help to form the Antelope Valley and also make the College *somewhat* isolated. The

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<sup>21</sup> Mario Rodriguez, Acting Vice Chancellor for Finance. *2016-17 May Revise Letter to the System*.

<sup>22</sup> Day Toy, Vice Chancellor for Finance. "Growth Funding Allocation Formula," *Consultation Digest*. November 20, 2014. "California Community Colleges Growth Funding Allocation Model" power point presentation to the Association of Chief Business Officers Conference. October 27, 2014.



nearest community college facilities are presently extension operations. To the south, Canyon Country Campus, located in Santa Clarita, is well along in its development as a potential second institution for the College of the Canyons. To the north and east, Cerro Coso College operates through the high schools in California City, Tehachapi, Monroe, and a small building on Edwards Air Force Base. The College has a partnership with Cerro Coso College to collaboratively serve the residents of southeastern Kern County. The recently accredited, privately operated University of Antelope Valley offers nine associate degree programs and a variety of certificates at its Lancaster and Rosamond campus locations.

The following table lists distances and driving times of the community colleges that are in “close proximity” to the AVCCD.

Table 6: Public Community Colleges Around the Antelope Valley Community College District

| Institution                                                          | City          | Drive Time* | Miles* |
|----------------------------------------------------------------------|---------------|-------------|--------|
| College of the Canyons                                               |               |             |        |
| Canyon Country Campus                                                | Santa Clarita | 49 min.     | 42     |
| Cerro Coso College                                                   |               |             |        |
| East Kern Center                                                     |               |             |        |
| Edwards AFB                                                          | Edwards AFB   | 47 min.     | 32     |
| Tehachapi Ed Center                                                  | Tehachapi     | 48 min.     | 48     |
|                                                                      |               |             |        |
| *Google Maps, AVC Lancaster campus to these other college locations. |               |             |        |

Source: California Community College Chancellor’s Office

#### *Implications for the Colleges:*

1. A broad array of governmental and private organizations is promoting the urgency for postsecondary institutions to produce more graduates. It has been estimated that the State economy will be short in excess of two million graduates with a bachelor’s degree or postsecondary education short of the bachelor’s degree by 2025. *As a public agency the College should embrace that public agenda with vigor.*
2. As the federal government seeks to achieve a more balanced budget there is still financial support for students and incentives for institutions to increase student success and prepare more students to compete in a global economy. However, these incentives come with performance expectations. *The College may have opportunities to enhance resources and it should act upon those opportunities.*
3. After many years of debate, several federal workforce-training programs have been consolidated and a new direction emphasizing regional efforts and agency collaboration has emerged in the Workforce Innovation and Opportunity Act (WIOA) legislation. As of fall 2016 the Carl Perkins legislation has not yet been reauthorized nor has the Higher Education Act

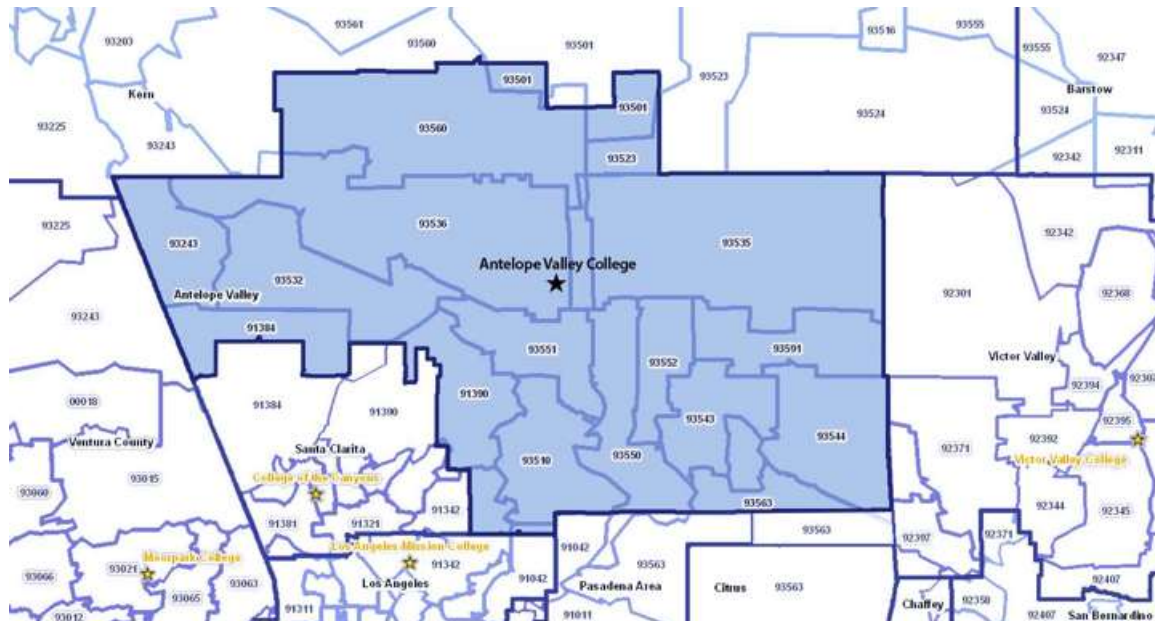
been reauthorized. *The College should monitor trends in federal to be in a position to take advantage of any new direction.*

4. The regional accrediting commission, ACCJC, is following federal direction with requirements it has imposed on member institutions. Recent state legislation intended to induce intentionality into institutional planning and to hold public colleges accountable for performance on state priorities are in a similar spirit to the accreditation expectations. *Attention should be given to tracking student achievement and learning performance, and acting upon areas where performance does not meet ACCJC expectations.*
5. Starting three years ago State legislation (SB 1440) created a remarkable framework to facilitate transfer to a campus within the California State University (CSU). Community college and CSU faculty throughout the state have risen to the occasion to forge transfer model curriculums (TMCs). *Antelope Valley College achieved its expected target, but there may be more that could be done to facilitate transfer.*
6. Particular state attention has been given to re-crafting matriculation and other student services along the lines of recommendations from the Student Success Task Force. *Although matching funds are required, attention must be given to student success concerns. When it is developed, participating institutions will be required to use a common placement assessment instrument if funds have been accepted. The College has a series of opportunities to improve services and student success by participating in these new state programs.*
7. A serious revisiting of online instruction as a delivery mode is being funded in the State. *While the College has been building an array of online classes, the online education initiative is a promising opportunity in which the College should consider full participation.*
8. Adult education has long been neglected as a public service in the state. The AEBG legislation provides fresh funding to promote regional cooperation and elimination of redundancy with incentives to focus the instruction on preparing vulnerable citizens for more effective participation in the workforce. This legislation, combined with the promise to raise the funding level for selective noncredit curriculum to equal the level of credit instruction starting in FY 2015-16, presents a unique opportunity to make a very substantial difference in the service area. *The College should grasp the opportunity to implement the planning work for adult education done by the regional consortium.*
9. Several opportunities are unfolding for career and technical education both within and outside of the Doing What Matters for Jobs and the Economy initiative from the Chancellor's Office. Several dedicated funding sources are promoting inter-segmental cooperation and regional approaches to this type of instruction. *The College should position itself to fully engage the various opportunities in this curriculum.*

### Population Served: AVCCD Effective Service Area

Within Los Angeles and Kern Counties, the official boundaries of the AVCCD include the zip code areas described in this graphic.

Chart 1: Official AVCCD District Boundaries



Source: Antelope Valley College. Marketing and Public Information Office

Geographically, the District covers 1,945 square miles. In 2015 the area population was estimated to be 437,000 people. The official District service area population is projected to become approximately 453,200 by 2020. Of the nineteen zip codes, five zip codes largely overlap into the services areas of adjacent community college districts (Kern, Pasadena, College of the Canyons, and Citrus). Those zip codes were excluded from the definition of the official service area. Two additional zip codes are largely within the AVCCD official area but small portions are shared with College of the Canyons and the Kern District. Those two zip codes were included in the geographic definition.

### Effective Service Area

Based upon an analysis of residential zip codes reported by enrolled students over the last five fall terms (2010-2014), the effective service area for Antelope Valley College encompasses 27 zip codes. Individuals from these zip codes account for 98% of the students participating at the College in the fall terms from 2010 to 2014. Ninety-five percent of the student headcount comes from the zip codes that are inside the official District area.

Table 7: Antelope Valley College, In-District vs. Outside-District Origination

| Category           | 2010 | 2011 | 2012 | 2013 | 2014 | 5-Yr Total |
|--------------------|------|------|------|------|------|------------|
| % In-District      | 95%  | 97%  | 97%  | 97%  | 97%  | 95%        |
| % Outside-District | 5%   | 3%   | 3%   | 3%   | 3%   | 5%         |

Source: California Community College Chancellor's Office, MIS Referential Files; analysis by Cambridge West Partnership, LLC



Main campus, principal walkway

Table 8: Antelope Valley College, Key Zip Codes for Student Origination

| In Dist | Zip   | State | 2010  | 2011  | 2012  | 2013  | 2014  | Total  | % of Total | Cum % |
|---------|-------|-------|-------|-------|-------|-------|-------|--------|------------|-------|
| Y       | 93535 | CA    | 2,625 | 2,624 | 2,690 | 2,816 | 2,880 | 13,635 | 18.90%     | 18.9% |
| Y       | 93536 | CA    | 2,805 | 2,730 | 2,558 | 2,617 | 2,668 | 13,378 | 18.55%     | 37.5% |
| Y       | 93550 | CA    | 2,181 | 2,201 | 2,251 | 2,353 | 2,321 | 11,307 | 15.68%     | 53.1% |
| Y       | 93551 | CA    | 1,992 | 1,819 | 1,698 | 1,740 | 1,771 | 9,020  | 12.51%     | 65.6% |
| Y       | 93534 | CA    | 1,476 | 1,529 | 1,457 | 1,584 | 1,581 | 7,627  | 10.57%     | 76.2% |
| Y       | 93552 | CA    | 1,137 | 1,130 | 1,182 | 1,222 | 1,312 | 5,983  | 8.30%      | 84.5% |
| Y       | 93560 | CA    | 572   | 516   | 492   | 486   | 515   | 2,581  | 3.58%      | 88.1% |
| Y       | 93543 | CA    | 390   | 366   | 332   | 342   | 337   | 1,767  | 2.45%      | 90.5% |
| Y       | 93591 | CA    | 178   | 167   | 166   | 165   | 170   | 846    | 1.17%      | 91.7% |
|         | 93505 | CA    | 137   | 177   | 136   | 142   | 162   | 754    | 1.05%      | 92.8% |
| Y       | 93539 | CA    | 156   | 158   | 141   | 126   | 110   | 691    | 0.96%      | 93.7% |
|         | 93561 | CA    | 142   | 140   | 144   | 125   | 128   | 679    | 0.94%      | 94.7% |
|         | 93501 | CA    | 82    | 90    | 85    | 82    | 72    | 411    | 0.57%      | 95.2% |
| Y       | 93510 | CA    | 84    | 73    | 70    | 62    | 60    | 349    | 0.48%      | 95.7% |
| Y       | 93590 | CA    | 59    | 55    | 65    | 52    | 43    | 274    | 0.38%      | 96.1% |
| Y       | 93532 | CA    | 65    | 53    | 50    | 54    | 42    | 264    | 0.37%      | 96.5% |
| Y       | 93553 | CA    | 57    | 50    | 44    | 46    | 43    | 240    | 0.33%      | 96.8% |
|         | 93523 | CA    | 23    | 25    | 22    | 20    | 27    | 117    | 0.16%      | 96.9% |
|         | 91387 | CA    | 21    | 25    | 18    | 15    | 18    | 97     | 0.13%      | 97.1% |
| Y       | 93584 | CA    | 25    | 17    | 16    | 18    | 15    | 91     | 0.13%      | 97.2% |
| Y       | 91390 | CA    | 25    | 16    | 16    | 11    | 9     | 77     | 0.11%      | 97.3% |
| Y       | 93586 | CA    | 13    | 21    | 14    | 9     | 9     | 66     | 0.09%      | 97.4% |
|         | 93516 | CA    | 28    | 12    | 6     | 10    | 9     | 65     | 0.09%      | 97.5% |
|         | 91351 | CA    | 9     | 9     | 15    | 12    | 12    | 57     | 0.08%      | 97.6% |
| Y       | 93544 | CA    | 12    | 10    | 7     | 9     | 13    | 51     | 0.07%      | 97.6% |
|         | 93581 | CA    | 12    | 14    | 8     | 8     | 8     | 50     | 0.07%      | 97.7% |
|         | 93504 | CA    | 12    | 10    | 9     | 5     | 5     | 41     | 0.06%      | 97.8% |

Source: California Community College Chancellor's Office, MIS Referential Files; analysis by Cambridge West Partnership, LLC

These zip codes represent a limited number of cities as shown on the following table.

Table 9: Antelope Valley College, Key Cities for Student Origination

| In Dist | City            | Fall Term Unduplicated Headcounts |       |       |       |       |            | % of Total | Cumulative % | Average | 2010 vs. 2014 % Change |
|---------|-----------------|-----------------------------------|-------|-------|-------|-------|------------|------------|--------------|---------|------------------------|
|         |                 | 2010                              | 2011  | 2012  | 2013  | 2014  | 5-Yr Total |            |              |         |                        |
| Y       | Lancaster       | 7,100                             | 7,079 | 6,876 | 7,170 | 7,263 | 35,488     | 49.20%     | 49.2%        | 7,098   | 2.30%                  |
| Y       | Palmdale        | 5,547                             | 5,372 | 5,362 | 5,532 | 5,617 | 27,430     | 38.03%     | 87.2%        | 5,486   | 1.26%                  |
| Y       | Rosamond        | 572                               | 516   | 492   | 486   | 515   | 2,581      | 3.58%      | 90.8%        | 516     | -9.97%                 |
| Y       | Littlerock      | 390                               | 366   | 332   | 342   | 337   | 1,767      | 2.45%      | 93.3%        | 353     | -13.59%                |
|         | California City | 149                               | 187   | 145   | 147   | 167   | 795        | 1.10%      | 94.4%        | 159     | 12.08%                 |
|         | Tehachapi       | 154                               | 154   | 152   | 133   | 136   | 729        | 1.01%      | 95.4%        | 146     | -11.69%                |
|         | Mojave          | 87                                | 90    | 88    | 88    | 76    | 429        | 0.59%      | 96.0%        | 86      | -12.64%                |
| Y       | Acton           | 84                                | 73    | 70    | 62    | 60    | 349        | 0.48%      | 96.5%        | 70      | -28.57%                |
| Y       | Lake Hughes     | 65                                | 53    | 50    | 54    | 42    | 264        | 0.37%      | 96.8%        | 53      | -35.38%                |
| Y       | Pearblossom     | 57                                | 50    | 44    | 46    | 43    | 240        | 0.33%      | 97.2%        | 48      | -24.56%                |
|         | Los Angeles     | 36                                | 46    | 43    | 53    | 43    | 221        | 0.31%      | 97.5%        | 44      | 19.44%                 |
|         | Canyon Country  | 33                                | 36    | 34    | 27    | 30    | 160        | 0.22%      | 97.7%        | 32      | -9.09%                 |

Source: California Community College Chancellor's Office, MIS Referential Files; analysis by Cambridge West Partnership, LLC

In fall 2014 the attendance catchment area for the curriculum offered at the Palmdale Center is described in the following table.

Table 10: Palmdale Center Student Participation, Fall 2014

| City            | In District | Fall 2014 Headcount | % of Total | Cumulative % |
|-----------------|-------------|---------------------|------------|--------------|
| Palmdale        | Y           | 1,633               | 71.72%     | 71.72%       |
| Lancaster       | Y           | 421                 | 18.49%     | 90.21%       |
| Littlerock      | Y           | 93                  | 4.08%      | 94.29%       |
| Rosamond        | Y           | 31                  | 1.36%      | 95.65%       |
| Acton           | Y           | 10                  | 0.44%      | 96.09%       |
| Pearblossom     | Y           | 8                   | 0.35%      | 96.44%       |
| Tehachapi       |             | 8                   | 0.35%      | 96.79%       |
| California City |             | 9                   | 0.40%      | 97.19%       |
| Others          |             | 64                  | 2.81%      | 100.00%      |
| <b>Total</b>    |             | <b>2,277</b>        |            |              |

Source: California Community College Chancellor's Office, MIS Referential Files; analysis by Cambridge West Partnership, LLC

Demographic attributes for the effective service area associated with the AVCCD are provided in the following table. Population growth between the year 2010 and 2020 for the AVC effective service area is estimated to be 7.87%. The projected annual rate of

population growth in the next several years (2015 to 2020) is 0.76%. The median age, in the low 30s, will be relatively young.

Table 11: Antelope Valley College Effective Service Area Demographics

| Variable           | 2000    | 2010    | 2015     | 2020     | 2015-2020<br>Annual Rate | 2015-2020<br>% Change | 2010-2020<br>% Change |
|--------------------|---------|---------|----------|----------|--------------------------|-----------------------|-----------------------|
| Population         | 440,886 | 558,614 | 580,437  | 602,897  | 0.76%                    | 3.87%                 | 7.93%                 |
| Group Quarters     |         |         | 17,035   |          |                          |                       |                       |
| Median Age         |         | 32.8    | 33.2     | 33.7     |                          |                       |                       |
| Households         | 140,002 | 170,292 | 175,848  | 182,263  | 0.72%                    | 3.65%                 | 7.03%                 |
| Average HH Size    | 3.05    | 3.17    | 3.20     | 3.21     |                          |                       |                       |
| Median HH Income   |         |         | \$60,179 | \$69,842 | 3.02%                    | 16.06%                |                       |
| Per Capital Income |         |         | \$24,713 | \$27,913 |                          | 12.95%                |                       |

Source: Environmental Systems Research Institute, Demographic and Income Profile and Market Profile; analysis by Cambridge West Partnership, LLC

An extended population projection for the effective service area is illustrated in the following table.

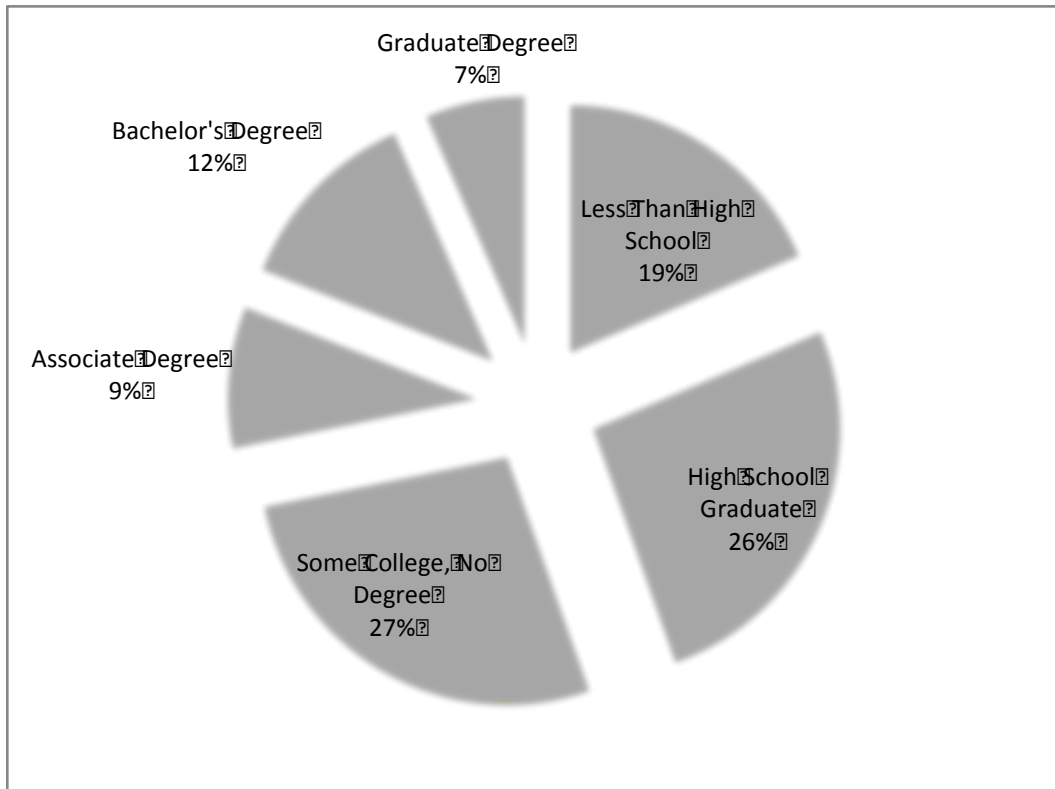
Table 12: Antelope Valley College Effective Service Area, Extended Population Projections

| Area    | Extended Population Projection |         |         |         |         | Annual Rate<br>of Change |
|---------|--------------------------------|---------|---------|---------|---------|--------------------------|
|         | 2021                           | 2022    | 2023    | 2024    | 2025    |                          |
| AVC ESA | 607,479                        | 612,096 | 616,748 | 621,435 | 626,158 | 0.76%                    |

Source: Environmental Systems Research Institute, Market Profiles; analysis by Cambridge West Partnership, LLC

Within the effective service area, 45% of the residents have either less than a high school diploma or only a high school diploma. Another one-fourth completed some college but did not complete an Associate Degree. These residents are prime candidates for the instruction offered by the College.

Chart 2: Effective Service Area, Educational Attainment in 2015 for Adults Age 25 or Older



Source: Environmental Systems Research Institute, Market Profile; analysis by Cambridge West Partnership, LLC

In response to the AB86 Adult Education legislation, educational need indicator data was assembled to facilitate adult education program planning in the regional consortia area. A dean at the College co-chaired the planning efforts with a senior administrator from one of the two public school districts. The socio-economic data they received to support planning is displayed in the following table representing the educational needs of the most vulnerable citizens in the larger region.

Table 13: Educational Needs of Adults in the Antelope Valley Region

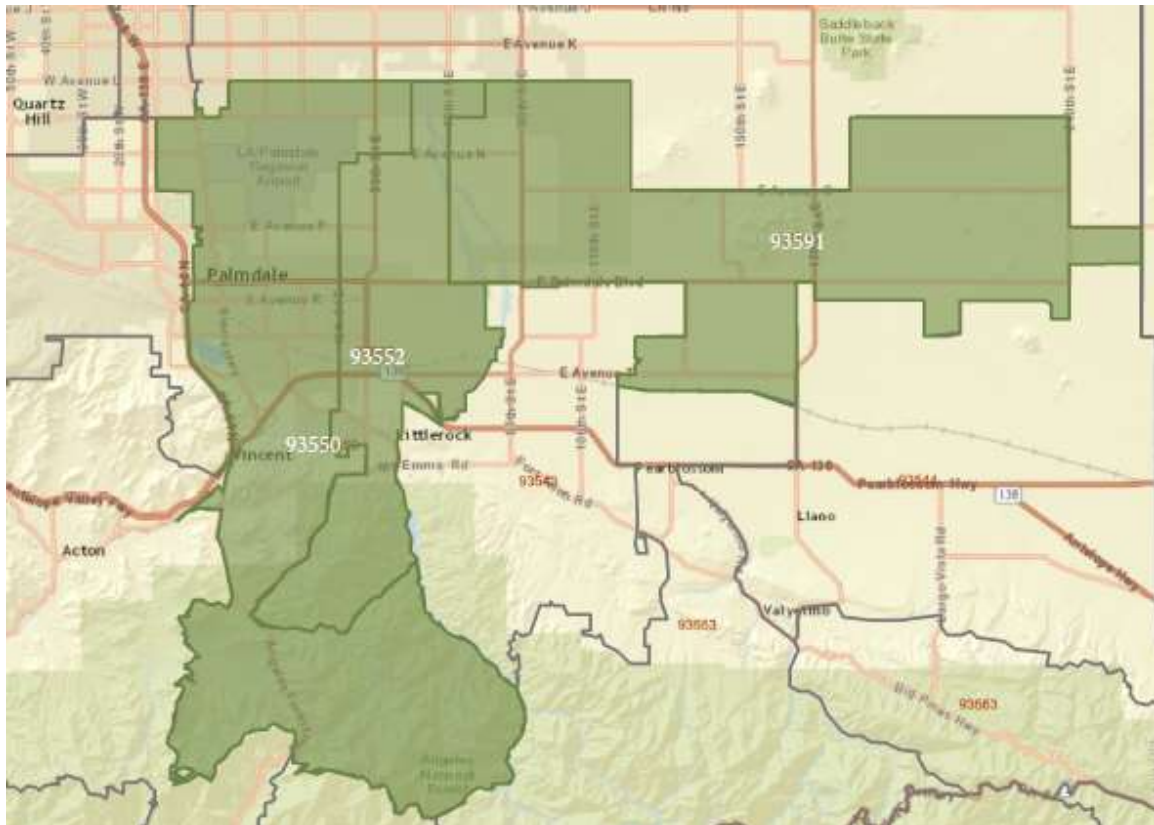
| Regional Consortia   | Poverty | No High School Diploma | Unemployment | ESL (English Language Learners) | Adults with Disabilities | No Citizenship | No Literacy |
|----------------------|---------|------------------------|--------------|---------------------------------|--------------------------|----------------|-------------|
| Antelope Valley      | 119,412 | 90,400                 | 47,933       | 174,895                         | 42,560                   | 60,068         | 66,718      |
| % of 2010 Population | 28.4%   | 21.5%                  | 11.4%        | 41.6%                           | 10.1%                    | 14.3%          | 15.9%       |

Sources: U.S. Census Bureau American Community Survey and U.S. Department of Education, National Center for Educational Statistics- National Assessment on Adult Literacy; analysis by the AB86 Work Group



Within the *official* District boundaries alone there are three zip codes where 20% or more of the households reported to the U.S. Census that they spoke English less than “very well.” Collectively, these cases account for 24,400 people age 5 or older. The largest concentration of limited English-speaking people is in zip code 93550, but all three are within the city of Palmdale as illustrated in the following chart.

Chart 3: Areas Where 20% or More of the Households Speak English Less Than Very Well



Sources: U.S. Census Bureau American Community Survey, Environmental Systems Research Institute. Market Profile; analysis by Cambridge West Partnership, LLC

Just over 21,600 (13.6%) of the residents in Lancaster reported being foreign-born whereas Palmdale reported almost double that amount with approximately 40,300 (25.8%). In Lancaster, 96.7% of the foreign-born residents and 98% in Palmdale indicated they had entered the United States before 2010. Both in Lancaster and Palmdale the majority of foreign-born residents are from Latin American countries.

Across the AVCCD official service area there were a limited number of languages other than English reported as being spoken at home. In both Lancaster and Palmdale those languages were Spanish or Asian/Pacific Island languages. Through the 2010-2014 American Community Survey process the Census Bureau estimated that approximately 51% of the Lancaster foreign-born population age five or older reported that they spoke

English less than “very well” at home. In contrast, approximately 60% of the foreign-born population in Palmdale reported that they spoke English less than “very well” at home.<sup>23</sup>

The initial work of the AB86 Consortium and the U.S. Census data pointed to significant English language learning educational needs, primarily in Palmdale, to which the College may want to respond.

Six zip codes (93534, 93550, 93535, 93560, 93543, and 93553) within the official District boundaries have 20% or more of the households living below the 2015 federal poverty level for a family of four. Collectively, there are 19,000 households that meet the criteria. There are two zip codes in Lancaster and one each in Palmdale, Rosamond, Littlerock, and Pearblossom.

Chart 4: Areas Where 20% or More of the Households Have an Income Below the Federal Poverty Level for a Family of Four

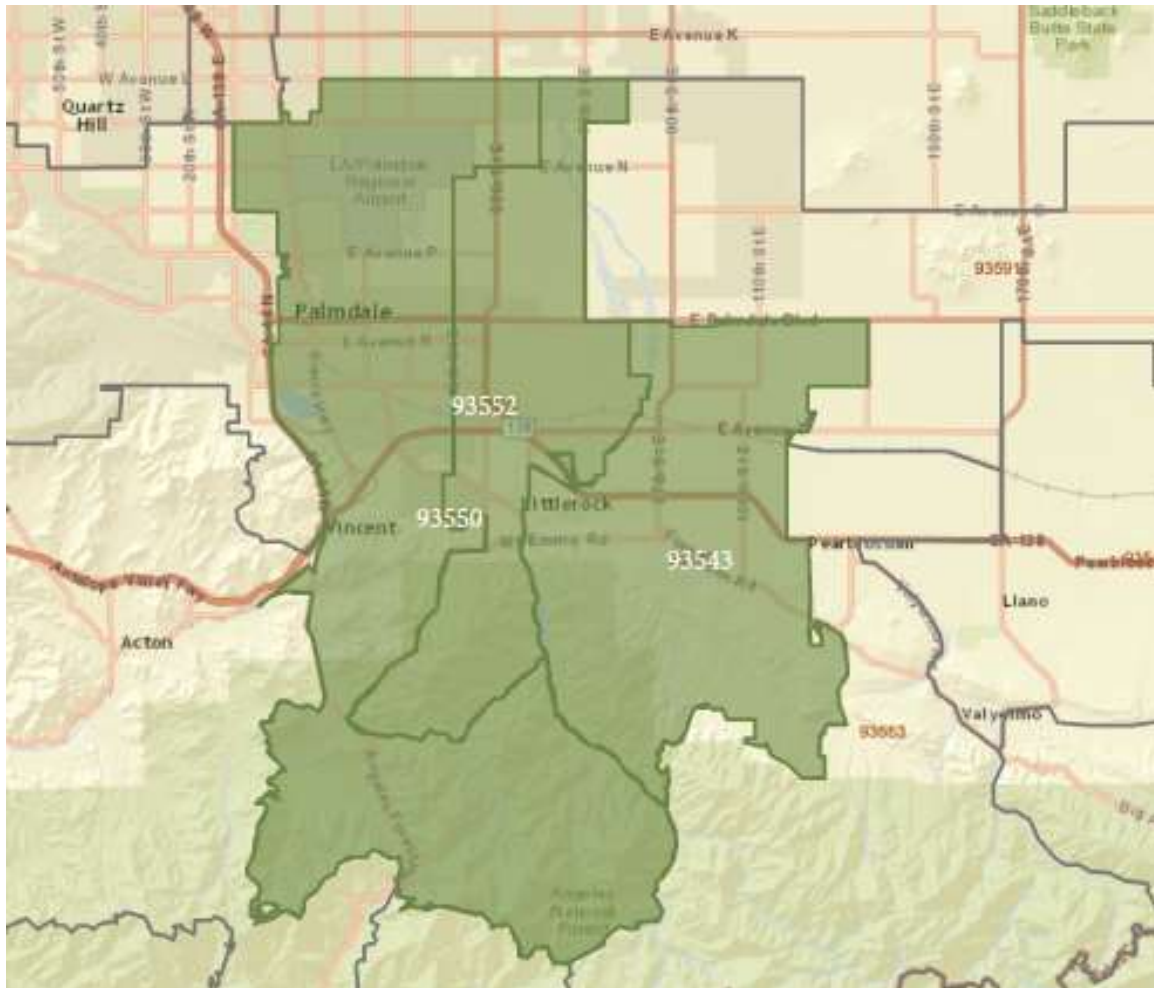


Sources: U.S. Census Bureau American Community Survey, Environmental Systems Research Institute. Market Profile; analysis by Cambridge West Partnership, LLC

Within the official District boundaries three zip codes have 30% or more of the adults reporting attainment of less than a high school diploma or equivalency. These residents account for 23,000 people in the College’s *official* service area. The zip codes (93550, 93543, and 93552) are represented in the following chart.

<sup>23</sup> U.S. Census Bureau. *American Communities Survey 2010-2014*.

Chart 5: Areas Where 30% or More of the Adult Attained Less Than a High School Diploma or Its Equivalent



Sources: U.S. Census Bureau American Community Survey, Environmental Systems Research Institute. Market Profile; analysis by Cambridge West Partnership, LLC

When these three socioeconomic variables, limited English proficiency, income below the federal poverty level, and deficiency in education, are taken together they create a portrait that provides a sense of where the educational needs are the greatest within the official District boundaries. The composite of this data is captured in the following table.

Table 14: Zip Codes Where Educational Need is the Greatest Within the Official AVC District Boundaries

| Socioeconomic Variable                                       | Zip Codes and City |                     |                     |                    |                    |                    |                      |                       |
|--------------------------------------------------------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|----------------------|-----------------------|
|                                                              | 93560,<br>Rosamond | 93534,<br>Lancaster | 93535,<br>Lancaster | 93550,<br>Palmdale | 93552,<br>Palmdale | 93591,<br>Palmdale | 93543,<br>Littlerock | 93553,<br>Pearblossom |
| 20% + Households Speak English Less Than Very Well           |                    |                     |                     | X                  | X                  | X                  |                      |                       |
| 20% + Household, Family of Four, Below Federal Poverty Level | X                  | X                   | X                   | X                  |                    |                    | X                    | X                     |
| 30% + Adults, Less Than High School Graduate                 |                    |                     |                     | X                  | X                  |                    | X                    |                       |
| <b>Total</b>                                                 | <b>1</b>           | <b>1</b>            | <b>1</b>            | <b>3</b>           | <b>2</b>           | <b>1</b>           | <b>2</b>             | <b>1</b>              |

Sources: U.S. Census Bureau American Community Survey, Environmental Systems Research Institute. Market Profile; analysis by Cambridge West Partnership, LLC

From the 2010 census to 2020 the age group in AVC *effective service area* that will increase the most in proportion to the overall population is the 65+ seniors. Out to 2020, the groups of recent high school graduates, late teenagers, and traditional college-agers or early 20s (career choice) is projected to decrease by 2.4%, but will continue to represent a substantial proportion of the overall population.

Table 15: AVC Effective Service Area Age Range Projections

| Age Category          | 2010  | 2015  | 2020  | 2010 to 2020    |
|-----------------------|-------|-------|-------|-----------------|
|                       |       |       |       | Absolute Change |
| under 15              | 23.6% | 22.0% | 21.8% | -1.8%           |
| Career Choice (15-24) | 16.4% | 16.3% | 14.0% | -2.4%           |
| Career Start (25-34)  | 12.7% | 14.1% | 16.2% | 3.5%            |
| Career Middle (35-44) | 13.7% | 12.2% | 12.5% | -1.2%           |
| Career Finish (45-64) | 25.1% | 25.5% | 23.9% | -1.2%           |
| Retirement (65+)      | 8.5%  | 9.9%  | 11.5% | 3.0%            |

Source: Environmental Systems Research Institute, Market Profile; analysis by Cambridge West Partnership, LLC

Across the State, participation rates in the community college system are traditionally the highest among the younger adults, ages 18 to 24. In recent years 60% of the enrolled students at the College fall into the traditional college-age range of 18 to 24 years of age. The size of that group within the effective service area is critical to future enrollments.

Over a long period of time, 1996 to 2014, the College annually enrolled 50 or more students per high school that are the primary feeder institutions and 20 to 49 students per each additional high school that are secondary feeders of students to the College. From 2010-11 to 2014-15 the annual and average yield rates are shown in the following table. The yield is calculated from the count of graduates (denominator) divided into the count of students who enroll at AVC the following year (numerator).

Table 16: Selected Feeder High Schools to Antelope Valley College

| District                                                                       | High School                               | Amt | Percentage Yield |              |              |              |              | Average      |
|--------------------------------------------------------------------------------|-------------------------------------------|-----|------------------|--------------|--------------|--------------|--------------|--------------|
|                                                                                |                                           |     | 2010             | 2011         | 2012         | 2013         | 2014         |              |
| Antelope Valley Union HS District                                              | Antelope Valley High, Lancaster           | *   | 29.2%            | 28.7%        | 20.8%        | 28.3%        | 29.8%        | 27.4%        |
| Mojave Unified School District                                                 | California City High, California City     |     |                  |              |              | 3.4%         | 22.7%        | 13.1%        |
| Private K-12                                                                   | Desert Christian Schools, Lancaster       | **  | 41.6%            | 41.3%        | 25.5%        | 27.3%        | 28.7%        | 32.9%        |
| Muroc Joint Unified School District                                            | Desert Junior-Senior High, Edwards        | **  | 27.5%            | 22.2%        | 19.2%        | 16.7%        | 20.0%        | 21.1%        |
| Antelope Valley Union HS District                                              | Desert Winds Continuation High, Lancaster | **  | 20.0%            | 52.4%        | 22.0%        | 23.3%        | 23.4%        | 28.2%        |
| Antelope Valley Union HS District                                              | Eastside High, Lancaster                  | **  | 3.6%             | 7.2%         | 12.3%        | 6.1%         | 35.4%        | 12.9%        |
| Antelope Valley Union HS District                                              | Highland High, Palmdale                   | *   | 29.1%            | 24.2%        | 25.5%        | 22.0%        | 32.6%        | 26.7%        |
| Antelope Valley Union HS District                                              | Lancaster High, Lancaster                 | *   | 33.3%            | 36.1%        | 27.1%        | 30.2%        | 33.3%        | 32.0%        |
| Antelope Valley Union HS District                                              | Littlerock High, Littlerock               | *   | 25.1%            | 20.1%        | 25.5%        | 18.8%        | 25.3%        | 23.0%        |
| Mojave Unified School District                                                 | Mojave Jr./Sr. High, Mojave               | **  | 14.8%            | 27.3%        | 17.8%        | 4.3%         | 13.2%        | 15.5%        |
| Antelope Valley Union HS District                                              | Palmdale High, Palmdale                   | *   | 28.0%            | 24.1%        | 26.5%        | 25.6%        | 32.1%        | 27.3%        |
| Private 9-12                                                                   | Paraclete High, Lancaster                 | *   | 29.8%            | 20.7%        | 28.3%        | 18.8%        | 12.8%        | 22.1%        |
| Antelope Valley Union HS District                                              | Quartz Hill High, Quartz Hill             | *   | 35.0%            | 30.5%        | 32.0%        | 28.6%        | 33.6%        | 31.9%        |
| Southern Kern Unified School District                                          | Rosamond High, Rosamond                   | *   | 25.1%            | 31.6%        | 27.1%        | 27.9%        | 22.0%        | 26.7%        |
| Tehachapi Unified School District                                              | Tehachapi High, Tehachapi                 | **  | 4.8%             | 7.4%         | 9.2%         | 5.7%         | 8.2%         | 7.1%         |
| <b>Average Local Yield</b>                                                     |                                           |     | <b>24.8%</b>     | <b>26.7%</b> | <b>22.8%</b> | <b>19.1%</b> | <b>24.9%</b> | <b>23.2%</b> |
| *A high school that commonly sends 50 or more students annually to the College |                                           |     |                  |              |              |              |              |              |
| **A high school that commonly sends 20 to 49 students annually to the College  |                                           |     |                  |              |              |              |              |              |

Sources: AVC Institutional Effectiveness, Planning, and Research Office. Fact Books 2010 to 2014, California Postsecondary Education Commission. Freshman Pathways. Retrieved from [www.cpec.ca.gov](http://www.cpec.ca.gov) on November 23, 2015; analysis by Cambridge West Partnership, LLC

The academic performance and circumstances of students who attend these high schools are assessed in a variety of ways as a means to gauge the general readiness for college of the student population who are potential attendees at the College. The 2013-14 academic year graduation rate among the feeder high schools average 89% while the statewide rate was 81%. For the same academic year the average portion of high school graduates in the feeder high schools who had completed either the University of California or California State University required entrance courses was 30% whereas the state average was 42%. The state three-year average base Academic Performance Index (API) score was 774 while the three-year average among the feeder high schools was 712. Additional discussion of school district performance is found in the 2014 Regional Labor Market Study.<sup>24</sup>

<sup>24</sup> Meeta Goel and Svetlana Deplazes, Department of Institutional Effectiveness, Research, and Planning, Antelope Valley College. *2014 Antelope Valley Labor Market Study*. Greater Antelope Valley Economic Alliance.



Table 17: 2013-14 Performance Data for Primary Feeder High Schools to Antelope Valley College

| District                              | High School                               | 2013-2014 Performance Data |                           |                                    |                  |                    | Percent Language Arts Proficient* | Percent General Math Proficient** |
|---------------------------------------|-------------------------------------------|----------------------------|---------------------------|------------------------------------|------------------|--------------------|-----------------------------------|-----------------------------------|
|                                       |                                           | Graduation Rate            | English Language Learners | Grads with UC/CSU Required Courses | 3-Yr API Average | Percent Free Lunch |                                   |                                   |
| Antelope Valley Union HS District     | Antelope Valley High, Lancaster           | 81.8%                      | 13.6%                     | 25.1%                              | 623              | 77.7%              | 20%                               | 13%                               |
| Mojave Unified School District        | California City High, California City     | 85.2%                      | 5.8%                      | 25.0%                              | 675              | 68.9%              | 30%                               | 1%                                |
| Private K-12                          | Desert Christian Schools, Lancaster       | -                          | -                         | -                                  | -                | -                  | -                                 | -                                 |
| Muroc Joint Unified School District   | Desert Junior-Senior High, Edwards        | 98.0%                      | 1.3%                      | 47.5%                              | 798              | 9.9%               | 29%                               | 32%                               |
| Antelope Valley Union HS District     | Desert Winds Continuation High, Lancaster | -                          | 16.2%                     | 0.0%                               | 499              | 55.8%              | 9%                                | 3%                                |
| Antelope Valley Union HS District     | Eastside High, Lancaster                  | 86.5%                      | 10.2%                     | 37.6%                              | 709              | 74.5%              | 27%                               | 6%                                |
| Antelope Valley Union HS District     | Highland High, Palmdale                   | 88.1%                      | 8.5%                      | 28.3%                              | 739              | 55.9%              | 34%                               | 15%                               |
| Antelope Valley Union HS District     | Lancaster High, Lancaster                 | 89.5%                      | 7.1%                      | 31.7%                              | 728              | 54.5%              | 33%                               | 19%                               |
| Antelope Valley Union HS District     | Littlerock High, Littlerock               | 83.3%                      | 17.0%                     | 26.4%                              | 659              | 78.6%              | 26%                               | 13%                               |
| Mojave Unified School District        | Mojave Jr./Sr. High, Mojave               | 86.4%                      | 14.4%                     | 10.5%                              | 625              | 80.9%              | 10%                               | 2%                                |
| Antelope Valley Union HS District     | Palmdale High, Palmdale                   | 81.8%                      | 15.9%                     | 23.2%                              | 677              | 74.8%              | 27%                               | 10%                               |
| Private 9-12                          | Paraclete High, Lancaster                 | -                          | -                         | -                                  | -                | -                  | -                                 | -                                 |
| Antelope Valley Union HS District     | Quartz Hill High, Quartz Hill             | 91.3%                      | 2.9%                      | 37.4%                              | 793              | 31.8%              | 34%                               | 13%                               |
| Southern Kern Unified School District | Rosamond High, Rosamond                   | 87.9%                      | 9.1%                      | 12.8%                              | 704              | 74.8%              | 29%                               | 10%                               |
| Antelope Valley Union HS District     | SOAR High, Lancaster                      | 100.0%                     | 0.2%                      | 93.2%                              | 941              | 60.2%              | 35%                               | 58%                               |
| Tehachapi Unified School District     | Tehachapi High, Tehachapi                 | 93.7%                      | 2.6%                      | 26.8%                              | 791              | 30.2%              | 31%                               | 14%                               |
| <b>Averages</b>                       |                                           | <b>88.7%</b>               | <b>8.9%</b>               | <b>30.4%</b>                       | <b>712</b>       | <b>59.2%</b>       | <b>26.7%</b>                      | <b>14.9%</b>                      |
| *11th grade 2012-13                   |                                           |                            |                           |                                    |                  |                    |                                   |                                   |
| **11th grade 2012-13, Algebra I       |                                           |                            |                           |                                    |                  |                    |                                   |                                   |

Source: California Department of Education. DataQuest; analysis by Cambridge West Partnership, LLC



Students and the main campus quad area

The largest racial group in the AVC *effective service areas* has been White. But, the portion of the self-reported White group is expected to shrink 2.5% by 2020 while the portion of the self-reported Some Other Race group is anticipated to increase 1.8% by 2020.

Residents who report Hispanic ethnicity currently constitute 39.3% of the population. The Hispanic ethnic group is estimated to continue increasing by 4.5% to become 43.8% by 2020.

Table 18: 2015 Antelope Valley College Effective Service Area, Racial and Ethnic Composition

|                        |              |               |              | <b>2010 to 2020</b>    |
|------------------------|--------------|---------------|--------------|------------------------|
| <b>Race</b>            | <b>2010</b>  | <b>2015</b>   | <b>2020</b>  | <b>Absolute Change</b> |
| White                  | 58.5%        | 57.0%         | 56.0%        | -2.5%                  |
| Black                  | 12.5%        | 12.3%         | 11.9%        | -0.6%                  |
| Asian                  | 4.6%         | 4.9%          | 5.3%         | 0.7%                   |
| Some Other             | 18.1%        | 19.2%         | 19.9%        | 1.8%                   |
| Two or More            | 5.1%         | 5.5%          | 5.7%         | 0.6%                   |
| Am Indian, Pacific Is. | 1.1%         | 1.2%          | 1.1%         |                        |
| <i>Total</i>           | <i>99.9%</i> | <i>100.1%</i> | <i>99.9%</i> |                        |
|                        |              |               |              |                        |
|                        |              |               |              |                        |
|                        |              |               |              |                        |
| <b>Ethnicity</b>       |              |               |              |                        |
| Hispanic Origin        | 39.3%        | 41.5%         | 43.8%        | 4.5%                   |

Source Environmental Systems Research Institute, Market Profile; analysis by Cambridge West Partnership, LLC

Across the State, participation in the community college system varies among ethnic and racial groups. However, young people of Hispanic heritage have been historically underrepresented in higher education

#### Implications for Antelope Valley College:

1. The population in the effective service area is projected to continue growing with a 7.9% change between 2010 and 2020 or a 0.76% annual change rate between 2015 and 2020. Out to 2025 the population is projected to become approximately 622,000.
2. Data assembled for the adult education consortium activities indicate that within the official District service area there are a number of families living at or below the poverty level and a significant segment are English language learners. *These data present profound implications and opportunities for the College.*
3. From 2010 to 2012, fall term enrollments declined. But, since 2012, enrollments have been increasing. To some extent, the decline in enrollments is related to the significant shortfall in state resources that accompanied the Great Recession. The

College has reversed the decline and has been preparing a larger Center facility in Palmdale. *Attention to additional facility capacity is warranted.*

4. Throughout the effective service area, the portion of adult residents age 25 or older that have no high school diploma is 19%. *There are ample residents who could benefit by attending the institution and completing a certificate or degree.*
5. Over the next five years the portion of teenagers and very young adults in the effective service area who are making career choices will continue to represent a substantial segment of the population. Several public high schools have been the primary providers of students to the College. *These data underscore the importance of outreach efforts the College might wish to continue in order to sustain enrollment volumes.*
6. Several zip codes in the official District service area were identified in which 20% or more of the households reported speaking English less than very well. Other zip codes were identified where 20% or more of the households reported an income that is below the 2015 federal poverty level for a family of four. *The large portion of low income of households and households where English is spoken less than very well in the College's official service area provide an opportunity for the College to be a "merchant of hope" by recruiting students whose lives will be transformed by their success at the institution.*
7. Traditionally, the Hispanic ethnic group has had a lower participation rate in higher education. *That trend of growth in the Hispanic ethnic group presents a particular recruiting challenge to the College.*



Main Campus Entry Letters



## B. Scan of Conditions Internal to the College

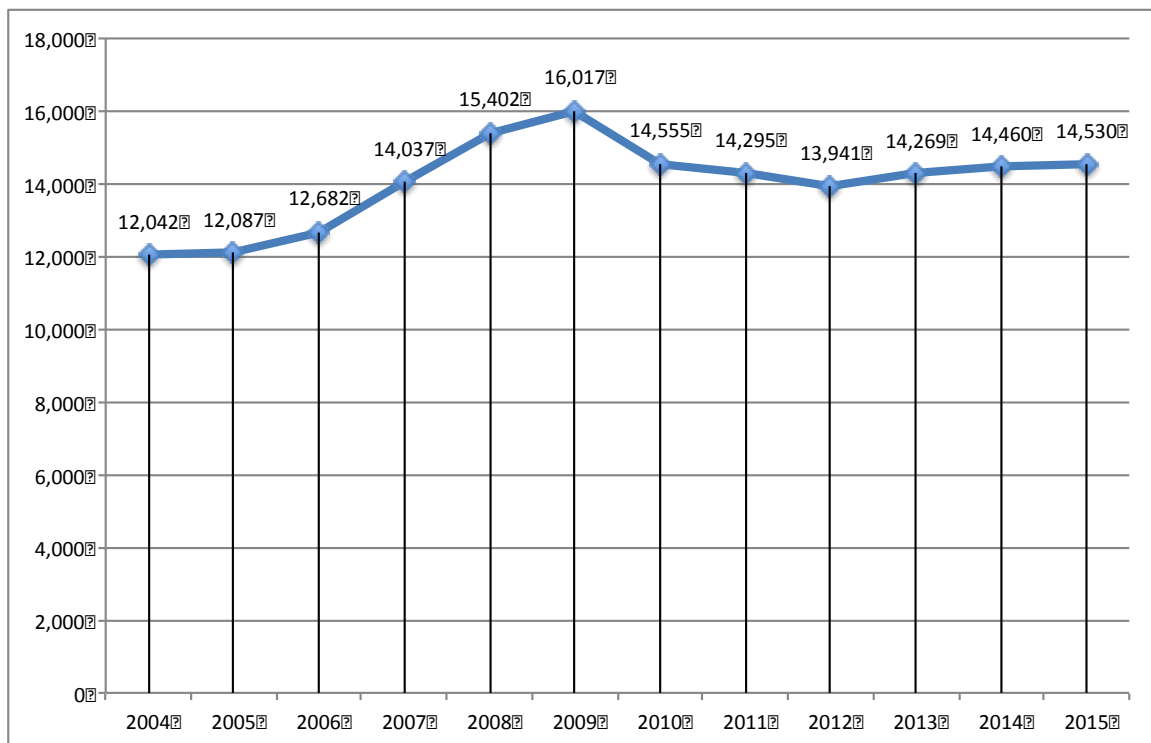
### The Institution from Within

From fall 2004 to fall 2009, the unduplicated student headcount at Antelope Valley College saw an increase of 5.50% annually, peaking in fall 2009 (16,017 students) with a total increase of 33% over fall 2004 (12,042 students).

From fall 2010 to fall 2015, the headcount *decreased* by 0.2% overall; a decrease of 0.03% annually. Because of budget cuts at the state level, enrollments across the state fell drastically during this same time period. Preparations for workload reduction and other factors resulted in declining enrollments at AVC between fall 2010 (14,555 students) and fall 2012 when unduplicated headcount bottomed out at 13,941.

Since fall 2012, unduplicated headcount has been gradually increasing, ending with an unduplicated headcount of 14,530 in fall 2015.

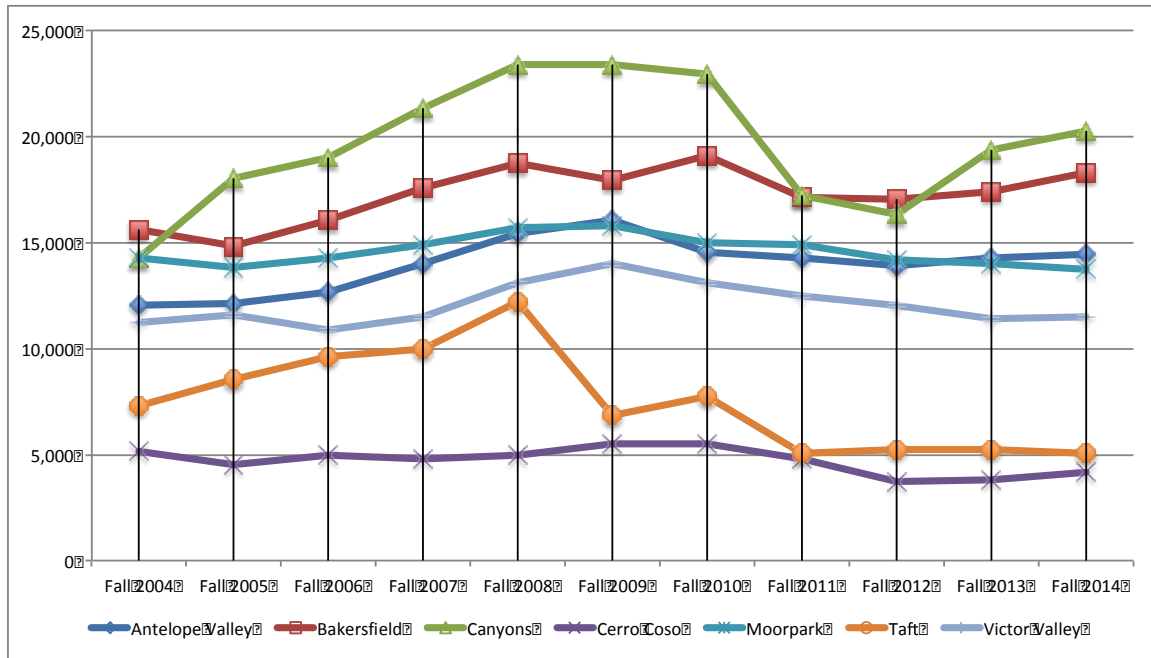
Chart 6: AVC Fall Terms, Unduplicated Student Headcount



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

This same trend in declining headcount after fall 2009 was also experienced in neighboring California community colleges. As of fall 2014, three of the colleges, Moorpark, Victor Valley, and Taft had not regained student headcount, but the others were beginning to see modest increases in headcount.

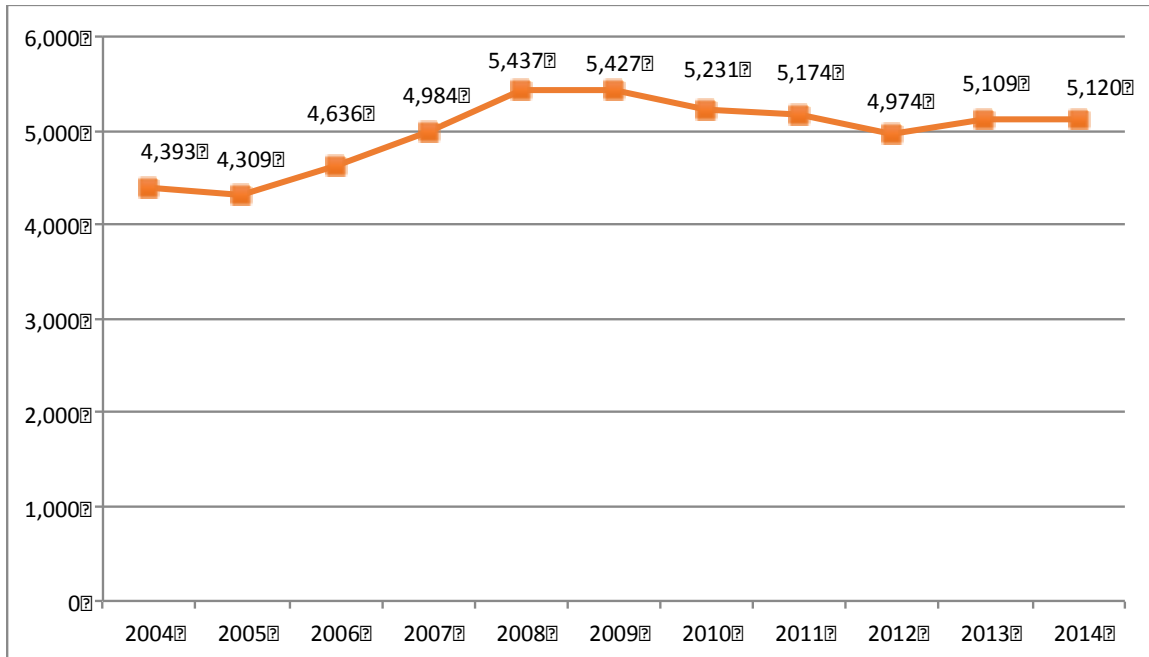
Chart 7: AVCCD and Neighboring Districts Fall Term Unduplicated Student Headcount



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

From fall 2004 to fall 2014 the credit Full-time Equivalent Students (FTES) produced at AVC increased by 727 FTES, an increase of 16.5%, 1.7% annually.

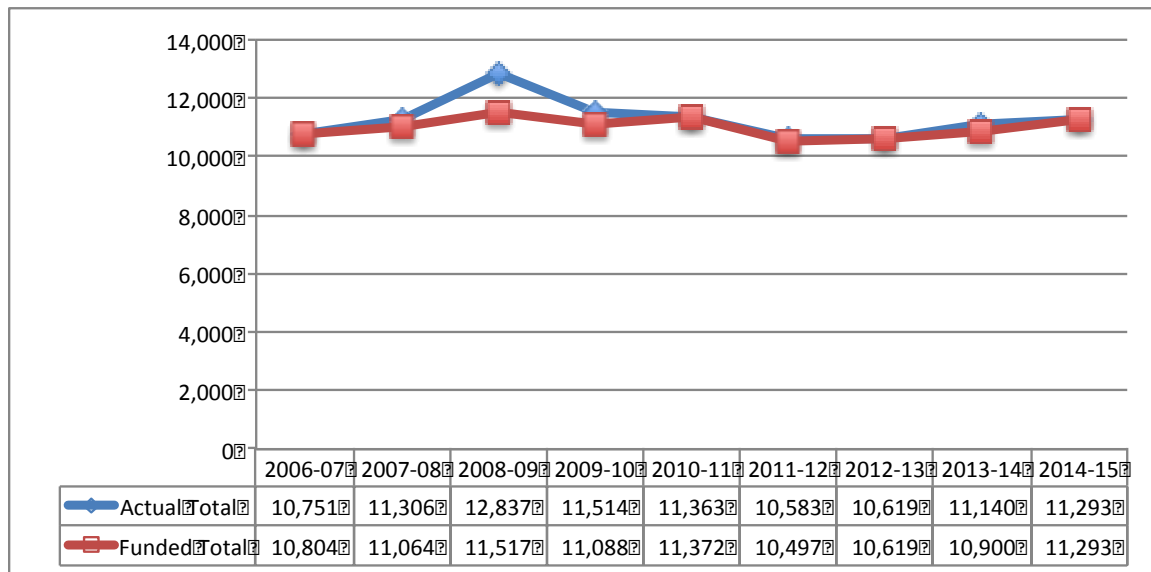
Chart 8: AVC Fall Term Credit FTES Trends



Source: Antelope Valley College, Enrollment Services; analysis by Cambridge West Partnership, LLC.

In terms of overall annual production, FTES increased 4.5% from 2006-2007 to 2014-2015. On average, this is a 0.50% increase in FTES each year. Following along the same trends as the fall terms, the annual FTES began a gradual decline after 2008-09, hitting bottom in 2011-2012. The highest FTES production was in 2008-2009 with 11,969.61 FTES. In all but three years the College had some unfunded FTES. The greatest amount was in 2008-09 when 1,402 units of FTES were not funded.

Chart 9: AVC Annual FTES Trends



Source: California Community Colleges, Chancellor's Office, *Recalculated Apportionment Reports and P2 Report for 2014-15*; analysis by Cambridge West Partnership, LLC.

Additional analysis of these trends is available in the annual Fact Books produced by the College Department of Institutional Effectiveness, Research and Planning (DIERP).

### Current Program of Instruction

The fall 2014 program of instruction was used as a baseline to define the needs for instructional and student support space. The detailed analysis of the projected program of instruction is located in the Projections for Future Growth chapter of this plan. The available instructional space determines the institution's capacity to produce weekly student contact hours (WSCH).

At the start of the 2015-16 academic year, the College was authorized to offer 158 instructional programs (degrees and certificates). Twenty-two of these approved programs are new transfer model curriculum degrees. Six of these new transfer degrees are in fields of study previously approved as Associate Degrees. There are seven degrees offered in disciplines that are considered within the liberal arts areas but are not duplicative of the associate degrees for transfer.

The remaining degrees and certificates are in disciplines that are considered career and technical education. Of these programs, 54 culminate in the award of an Associate Degree while 59 culminate in the award of a Certificate of Achievement. Forty-eight of the Associate Degrees offer Certificates of Achievement in the same field of study; the students may choose to earn both. The College offers several programs that are accredited by county, state or federal agencies, while others are accredited by national professional associations. The Federal Aviation Administration accredits the Aeronautical and Aviation Technology programs. The California Board of Registered Nursing accredits the Associate Degree Nursing program and the California Board of Vocational Nursing and Psychiatric Technicians accredits the Vocational Nursing Licensed Vocational Nursing program. The California State Fire Marshal accredits the Fire Academy and the Fire Technology (Wildland) programs. The Los Angeles County Emergency Medical Services Agency accredits the Emergency Medical Technology program. The national American Society of Radiologic Technologists accredits the Radiologic Technology program. The national Commission on Accreditation for Respiratory Care accredits the Respiratory Care program. Additionally, the Board of Trustees has authorized the College to award two Certificates of Career Preparation that require less than 18 units of credit. By state policy those certificates are not entered on the students' transcripts upon completion.

When compared to colleges producing a comparable volume of FTES, Antelope Valley appears to be offering a broader range of programs of study than its peers. Among the four institutions only San Diego City College offers more degrees and certificates and those additional programs are likely associated with apprenticeship programs and a long-standing contract educational arrangement with the U.S. Navy. The count of Taxonomy of Programs (TOPs) data is an expression of the number of *different disciplines* provided in the degree and certificate programs of study. The efforts by AVC are impressive.

Table 19: Comparative Breadth of Curriculum Programs of Study

| College         | Fall 2015  | Programs of Study |      |        | Distinct |
|-----------------|------------|-------------------|------|--------|----------|
|                 | Total FTES | Total             | Cert | Degree | TOPs     |
| Antelope Valley | 5,048.83   | 156               | 61   | 95     | 82       |
| Citrus          | 5,243.41   | 100               | 44   | 56     | 63       |
| Golden West     | 5,046.68   | 121               | 36   | 85     | 62       |
| San Diego City  | 4,883.08   | 210               | 77   | 133    | 83       |
| Canyons         | 6,521.62   | 120               | 37   | 83     | 72       |

Sources: California Community Colleges Chancellor's Office. *Data Mart* and *Curriculum Inventory*. Retrieved May 12, 2016 from <http://datamart.cccco.edu> and <http://curriculum.cccco.edu>

At the beginning of the 2015-16 academic year Antelope Valley College had established 22 Associate Degrees for Transfer (AD-T). The College is among the top quartile of community colleges in the numbers of these transfer programs it has implemented. The College is expected to implement a program in Biology this academic year and faculty members are working on several other transfer programs. The College's standing in the state as of the spring 2016 term is documented in the following table.

Table 20: State Summary of Associate Degrees for Transfer, December 2015

| Quartile | Category                                   | Nbr. Colleges |
|----------|--------------------------------------------|---------------|
| 4th      | 22 to 28 degrees (Antelope Valley College) | 28            |
| 3rd      | 19 to 21 degrees                           | 26            |
| 2nd      | 15 to 18 degrees                           | 27            |
| 1st      | 5 to 14 degrees                            | 32            |
|          | <b>Total</b>                               | <b>113</b>    |

Source: California Community Colleges, Chancellor's Office, Academic Affairs Division, *Transfer Model Curriculum AD-T Progress Report, March 31, 2016*; analysis by Cambridge West Partnership, LLC

Of the 992 possible courses listed in the College curriculum inventory, 238 have been named in these 22 transfer degree programs. The courses required or named as restricted electives in these transfer degree programs must be offered at least once in a two-year cycle. An ambitious AVC to CSU initiative seeks to hand students a two-year schedule with advanced registration privileges if they commit to a transfer degree program of study. Four programs of study are being piloted in 2015-16. There are scheduling implications associated with the institutional commitment to sponsor so many AD-T degrees. Most courses were identified in only one transfer degree program; however, a limited number of courses were identified in more than two AD-Ts as illustrated in the following table.

Table 21: High Frequency Named Courses in Associate Degrees for Transfer

| Course   | Description                  | Total Programs |
|----------|------------------------------|----------------|
| MATH 115 | Statistics                   | 8              |
| ANTH 102 | Cultural Anthropology        | 5              |
| ECON 101 | Principles of Macroeconomics | 4              |
| MATH 150 | Calculus & Analytic Geometry | 4              |
| MATH 160 | Calculus & Analytic Geometry | 4              |
| MATH 250 | Calculus & Analytic Geometry | 3              |
| GEOL 101 | Physical Geology             | 3              |
| HIST 101 | Western Civilization to 1750 | 3              |
| HIST 115 | Cultural History of Mexico   | 3              |
| PSY 101  | General Psychology           | 3              |
| SOC 101  | Sociology                    | 3              |

Source: Antelope Valley College. 2015-16 Catalog; analysis by Cambridge West Partnership, LLC

The fall 2014 program of instruction on the Lancaster campus consisted of 1,291 sections, which generated 141,613 weekly student contact hours (WSCH), including all modes of instruction. Enrollments (seat counts) per section averaged 30.06 and a WSCH per section of 110. For every one weekly hour of laboratory instruction 1.8 hours of lecture instruction was offered. The key characteristics of the fall 2014 program of instruction are reflected in the following table where all sections retained and all WSCH have been included, regardless of the instructional mode or the residence status of the enrolled students.

Table 22: Fall 2014 Key Measures for the Program of Instruction, Lancaster Campus

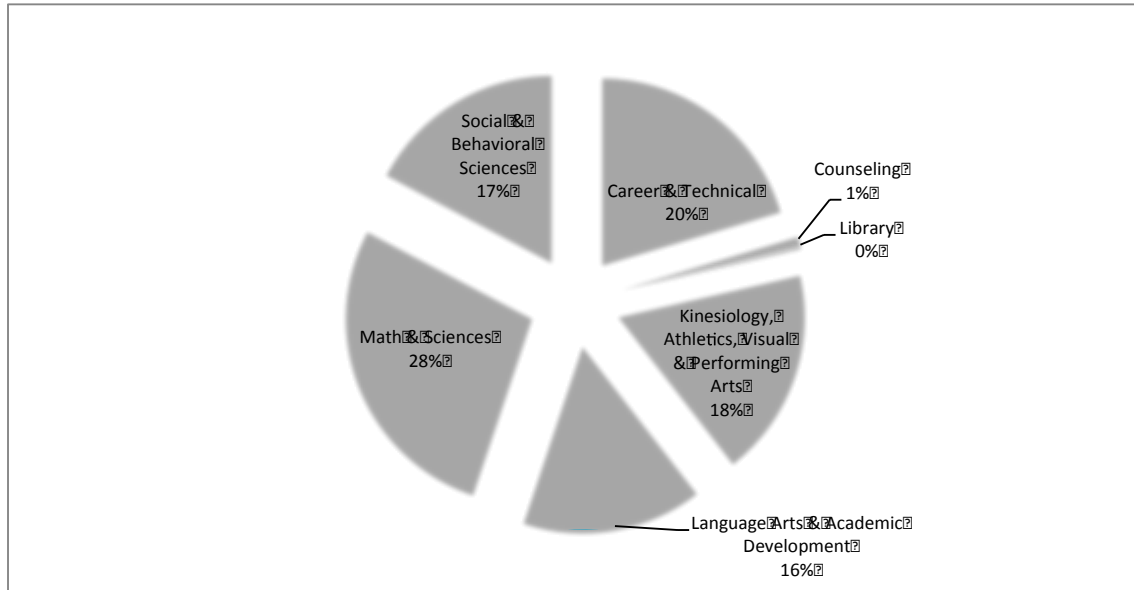
| Division                                         | % of WSCH | WSCH Fa 2014 | % of Sections | # Sections |
|--------------------------------------------------|-----------|--------------|---------------|------------|
| Career & Technical                               | 20.4%     | 28,901.6     | 21.22%        | 274        |
| Counseling                                       | 0.8%      | 1,101.0      | 1.16%         | 15         |
| Library                                          | 0.2%      | 291.2        | 0.46%         | 6          |
| Kinesiology, Athletics, Visual & Performing Arts | 18.1%     | 25,602.7     | 22.31%        | 288        |
| Language Arts & Academic Development             | 15.7%     | 22,179.7     | 18.05%        | 233        |
| Math & Sciences                                  | 27.6%     | 39,091.2     | 21.46%        | 277        |
| Social & Behavioral Sciences                     | 17.3%     | 24,445.2     | 15.34%        | 198        |
| Total                                            |           | 141,612.6    |               | 1,291      |
| Off Campus Sections                              |           | 1,742.1      |               | 5          |

Source: Antelope Valley College, Information Technology Department, analysis by Cambridge West Partnership, LLC

The divisions of the College were used to determine percentage shares of the WSCH attendance. As illustrated in the pie chart below, two divisions account for the largest portions of WSCH in the fall 2014 program of instruction: (1) Math and Science (28%);

(2) Career & Technical (20%). However there are significant contributions from Language Arts & Academic Development (16%), Kinesiology, Athletics, Visual & Performing Arts (18%), and Social & Behavioral Sciences (17%).

Chart 10: Fall 2014 Distribution of Attendance WSCH, Lancaster Campus



Source: Antelope Valley College Information Technology Department, analysis by Cambridge West Partnership, LLC

During the fall 2014 baseline term the College offered 545 different courses at the Lancaster campus spread across the seven divisions. Among the 545 courses, 43 of them accounted for fifty percent of all enrollments at the main campus. Those 43 courses represent 22 different subjects, but the two subjects with the largest enrollments were Math (5 courses) and English (5 courses).



The fall 2014 program of instruction on the Palmdale Center consisted of 155 sections, which generated 16,063 WSCH, including all modes of instruction. Enrollments (seat counts) per section averaged 31.47 and a WSCH per section of 106. Because very little laboratory instruction is offered at the Palmdale Center, for every one weekly hour of laboratory instruction 13 hours of lecture instruction was offered. The key characteristics of the fall 2014 program of instruction are reflected in the following table where all sections are retained and all WSCH have been included, regardless of the instructional mode or the residence status of the enrolled students.

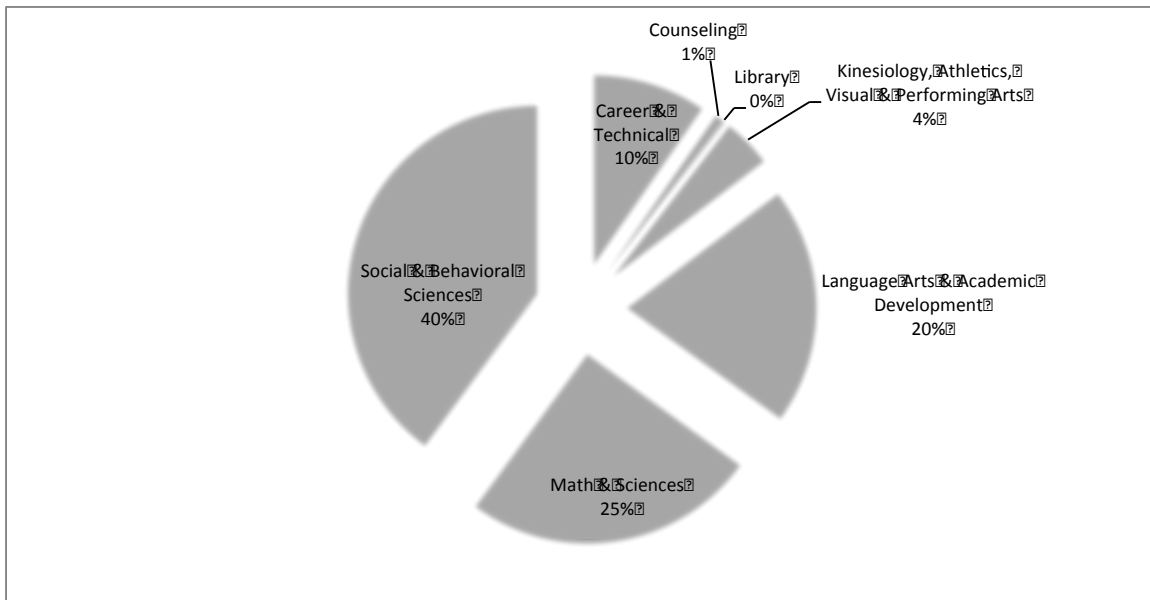
Table 23: Fall 2014 Key Measures for the Program of Instruction, Palmdale Center

| <b>Division</b>                                  | <b>% of WSCH</b> | <b>WSCH Fa 2014</b> | <b>% of Sections</b> | <b># Sections</b> |
|--------------------------------------------------|------------------|---------------------|----------------------|-------------------|
| Career & Technical                               | 9.6%             | 1,546.00            | 10.97%               | 17                |
| Counseling                                       | 0.8%             | 131.25              | 0.65%                | 1                 |
| Library                                          | 0.1%             | 8.96                | 0.65%                | 1                 |
| Kinesiology, Athletics, Visual & Performing Arts | 4.2%             | 668.61              | 4.52%                | 7                 |
| Language Arts & Academic Development             | 20.3%            | 3,266.11            | 21.94%               | 34                |
| Math & Sciences                                  | 25.1%            | 4,032.99            | 18.06%               | 28                |
| Social & Behavioral Sciences                     | 39.9%            | 6,409.32            | 43.23%               | 67                |
| Total                                            |                  | 16,063.24           |                      | 155               |

Source: Antelope Valley College, Information Technology Department, analysis by Cambridge West Partnership, LLC

The divisions of the College were used to determine percentage shares of the WSCH attendance at Palmdale. As illustrated in the pie chart below, two divisions account for the largest portions of WSCH in the fall 2014 program of instruction: (1) Math and Science (25%); (2) Social & Behavioral Sciences (40%). However, there was a significant contribution from Language Arts & Academic Development (20%).

Chart 11: Fall 2014 Distribution of Attendance WSCH, Palmdale Center

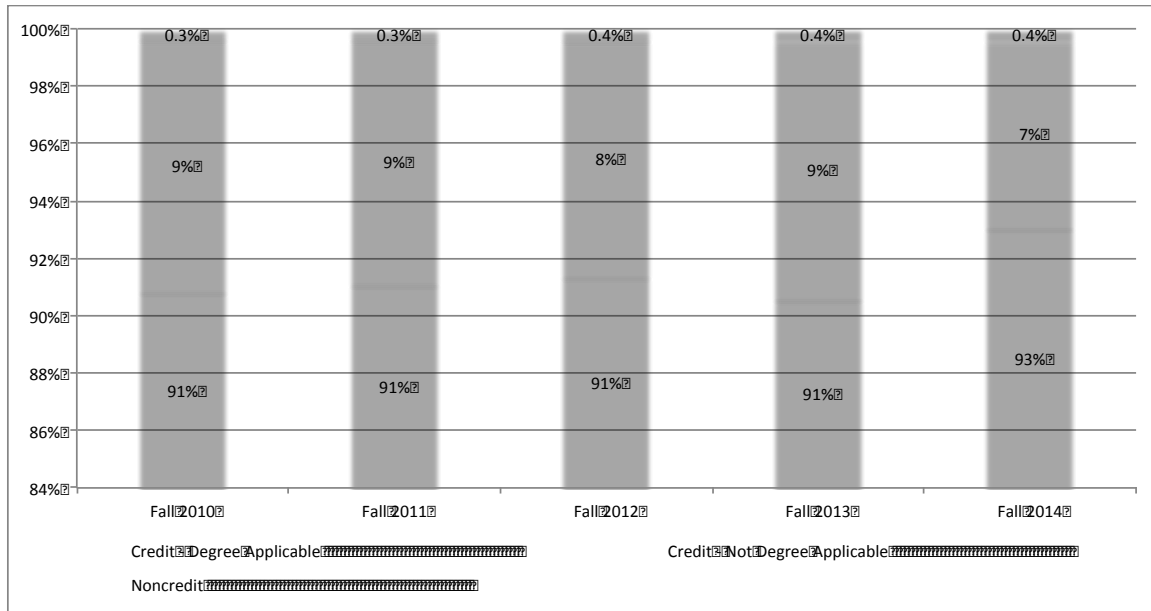


Source: Antelope Valley College, Information Technology Department, analysis by Cambridge West Partnership, LLC

The following analysis explores the trends in course offerings for Antelope Valley College as a whole.

The portion of the sections offered that are credit degree-applicable courses has increased by 2% over the past five fall terms while the portion of credit but not degree-applicable sections has decreased by 2%. The portion of the sections offered that are noncredit has remained the same during the same time period.

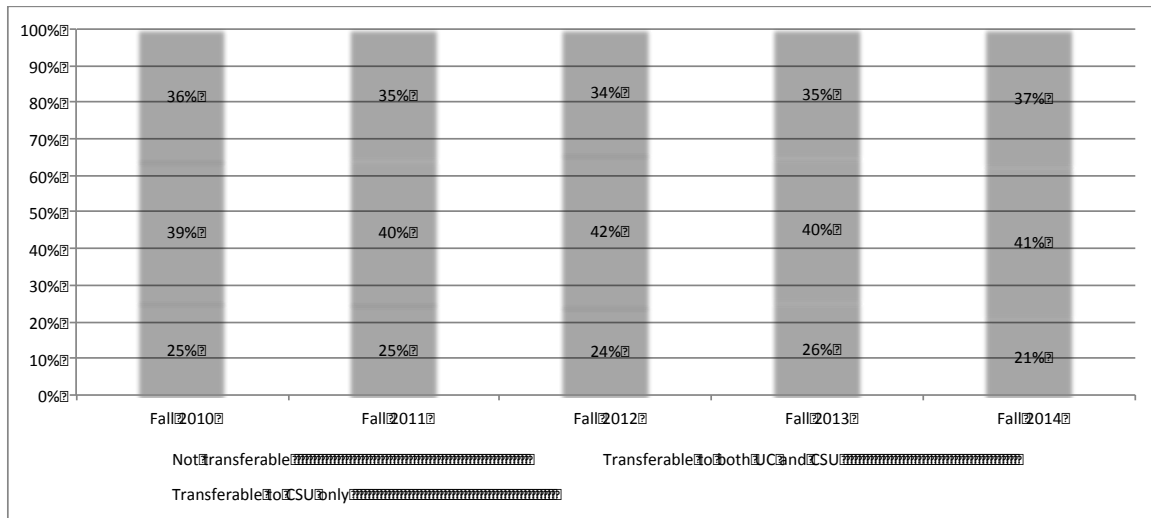
Chart 12: Fall Class Offering Trends by Credit Status



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

With respect to transfer status, the trend in the portion of scheduled classes that are transferable to both the University of California (UC) and the California State University (CSU) has increased by 3% while the curriculum that transfers only to CSU has increased by 1% over the last six fall terms. Nontransferable course offerings have dropped by 4%.

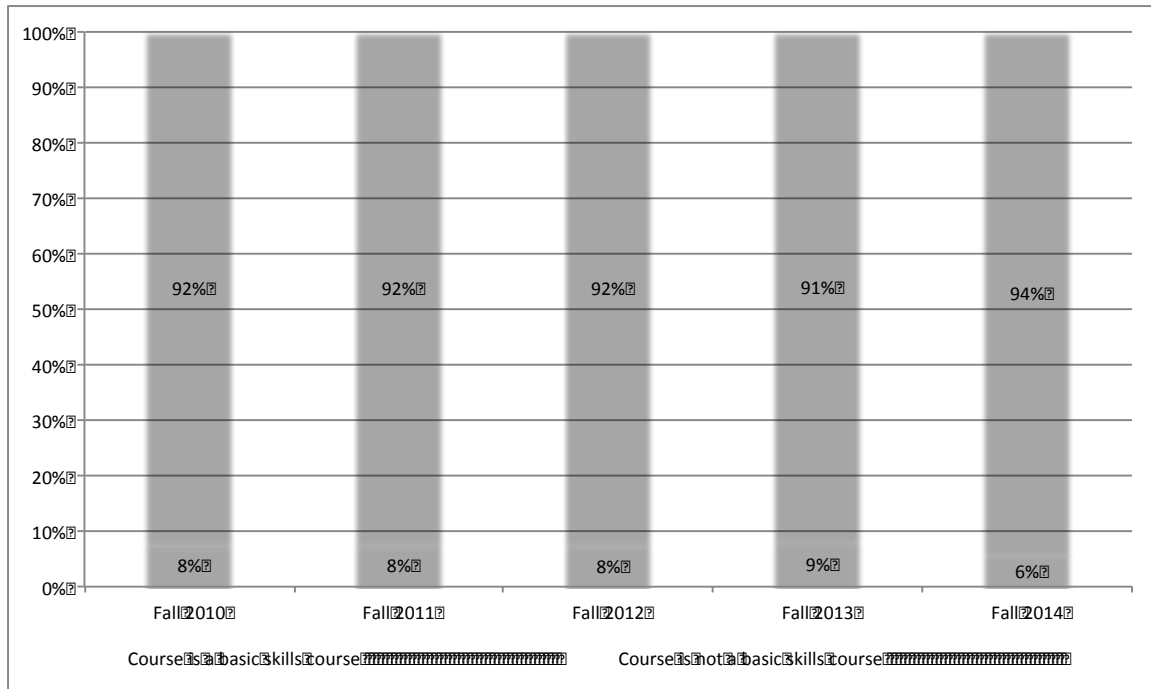
Chart 13: Fall Class Offering Trends by Transfer Status



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

In fall 2010, 92% of the sections offered were not basic skills courses. In fall 2014 that number increased by 2% to 94%. This means that the number of basic skills sections offered decreased by 2% over the same time period; 8% in fall 2010 to 6% in fall 2014.

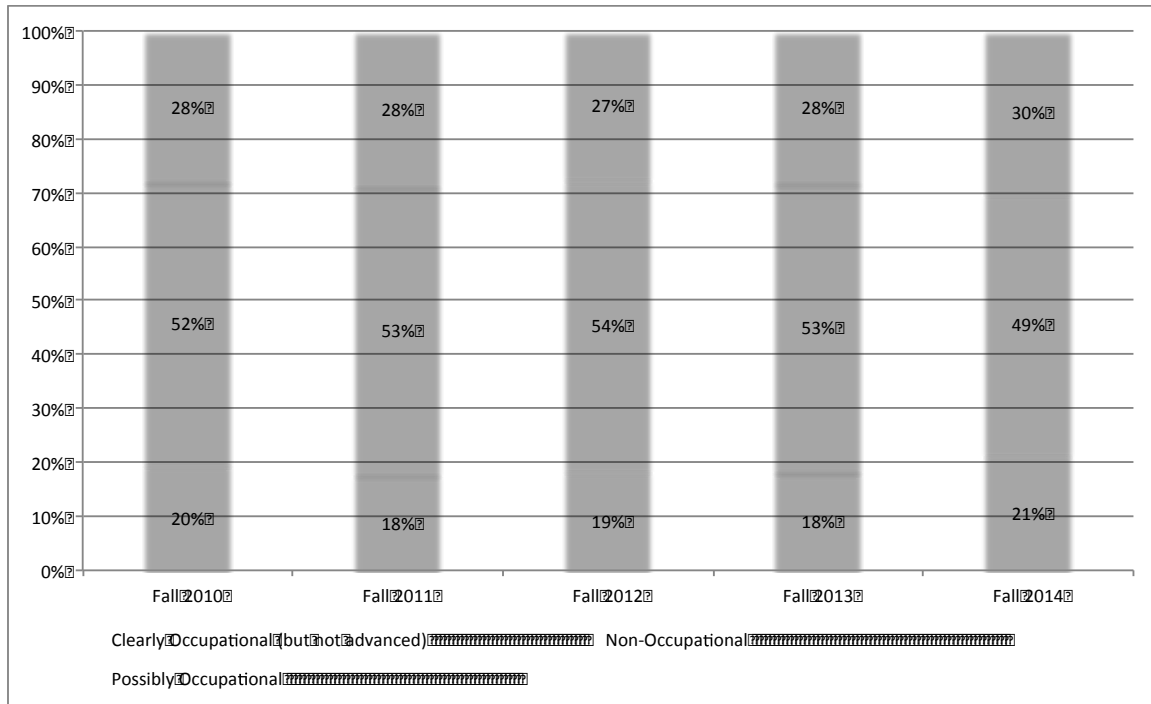
Chart 14: Fall Class Offering Trends by Basic Skills Status



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

The Student Accountability Model (SAM) coding system can be used to categorize the College curriculum, separating courses into CTE and non-CTE categories. The SAM coding of courses also distinguishes among different kinds of career and technical education (CTE) courses. *On average* the CTE offerings represent 47% of the offerings while the non-CTE classes comprise 52% of the sections scheduled from fall 2010 to fall 2014. In fall 2014, CTE classes made up 51% of the section offerings while non-CTE classes made up 49%.

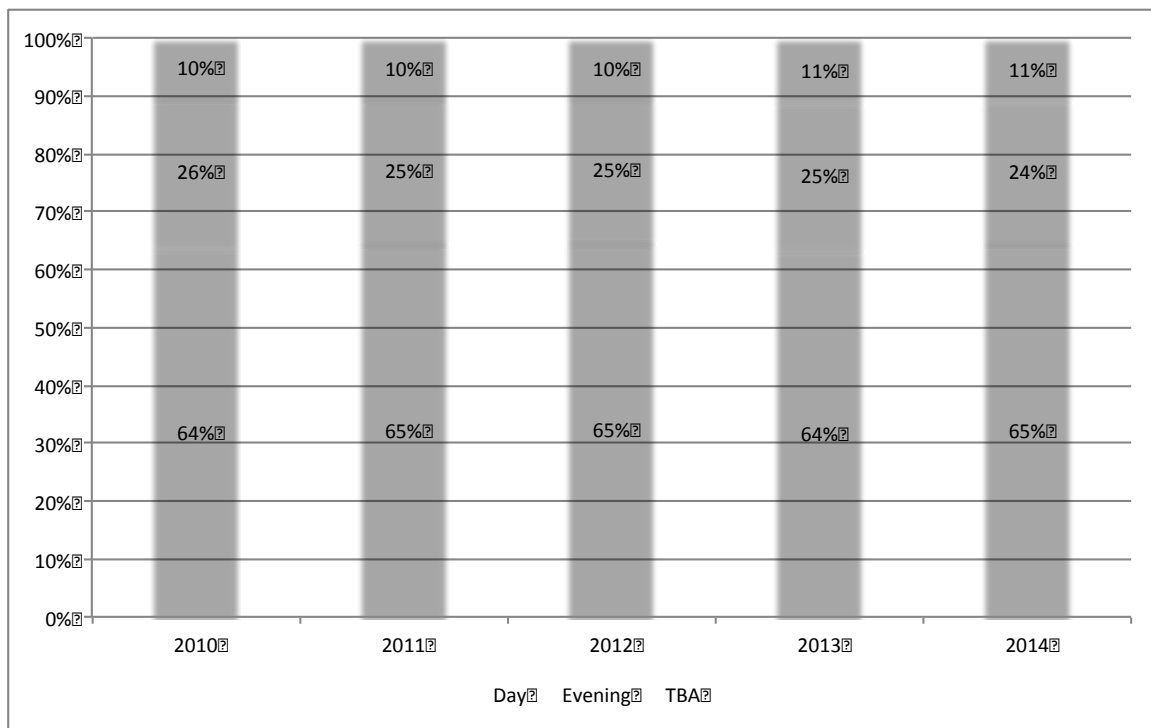
Chart 15: Fall Class Offering Trends by SAM Code Status



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

An analysis of the primary class meeting patterns reveals the predomination of daytime offerings. Over the last five fall terms the portion of classes offered during the day, evening, or TBA has remained constant. On average, the number of daytime classes has exceeded the number of “to be arranged” (TBA) classes over the past five fall terms; daytime classes averaged 65% of the sections. The average portion of classes scheduled in the evening, sections that begin after 4:29 p.m., has been 25% of all offerings. TBA classes, the majority of which are distance education sections, have made up 10% to 11% of the fall schedules. Evening sections have decreased 1% from fall 2010 to fall 2014.

Chart 16: Fall Class Offering Trends by Day vs. Evening Schedule



Source: California Community Colleges, Chancellor’s Office, Data Mart; analysis by Cambridge West Partnership, LLC.

Scheduling classes at a large, complex institution such as Antelope Valley College is a significant juggling act to balance facilities, faculty, weeks-duration, days, and time slots. It is particularly challenging to orchestrate coordinated time periods for classes with different numbers of contact hours and classes that run for different numbers of weeks. Also, some classes are offered to address the needs of cohorts of learners in special programs and others are offered off site and not on the main campus. Many of the conflicts identified in the following discussion flow from conflicts among these variables.

An analysis of the instructional periods used in the fall 2014 schedule indicated that there were six primary instructional periods related to the common two-day-a-week day scheduling pattern (starting before 4:30 pm). Each primary instructional period lasted 80 minutes. However, there were a number of classes that were scheduled at starting and ending times or day patterns that conflicted with these primary instructional periods.

Some of this potential conflict may have arisen from the differences in contact time required by courses with different units of credit and different combinations of lecture and laboratory modes of instruction. The following tables illustrate the fall 2014 term patterns and potential conflicts for classes scheduled to last the entire semester.

Table 24: AVC Day Full-term Schedule Pattern Analysis, fall 2014

| Period # | Period Times                                    | # Full-term Classes        |                            | Total        |
|----------|-------------------------------------------------|----------------------------|----------------------------|--------------|
|          |                                                 | Monday<br>and<br>Wednesday | Tuesday<br>and<br>Thursday |              |
|          | starts before <8:00 am                          | 9                          | 2                          | 11           |
| <b>1</b> | <b>8:00-9:20 am</b>                             | <b>32</b>                  | <b>31</b>                  | <b>63</b>    |
|          | 8:00 -10:05 am                                  | 14                         | 12                         | 26           |
|          | starts between 9:21-9:30 am                     | 12                         | 10                         | 22           |
| <b>2</b> | <b>9:30-10:50 am</b>                            | <b>52</b>                  | <b>46</b>                  | <b>98</b>    |
|          | 10:15 am-12:20 pm                               | 14                         | 16                         | 30           |
|          | starts between 10:45-11:00 am                   | 8                          | 6                          | 14           |
| <b>3</b> | <b>11:00 am-12:20 pm</b>                        | <b>49</b>                  | <b>51</b>                  | <b>100</b>   |
|          | starts between 11:00 am-12:29 pm                | 10                         | 6                          | 16           |
| <b>4</b> | <b>12:30-1:50 pm</b>                            | <b>32</b>                  | <b>36</b>                  | <b>68</b>    |
|          | 12:30-2:35 pm                                   | 13                         | 10                         | 23           |
|          | starts between 12:31-2:14 pm                    | 8                          | 10                         | 18           |
| <b>5</b> | <b>2:15-3:35 pm</b>                             | <b>24</b>                  | <b>17</b>                  | <b>41</b>    |
|          | starts between 2:16-3:44 pm                     | 10                         | 15                         | 25           |
| <b>6</b> | <b>3:45-5:05 pm</b>                             | <b>16</b>                  | <b>8</b>                   | <b>24</b>    |
|          | starts between 3:46-4:29 pm                     | 3                          | 8                          | 11           |
|          | Totals                                          | 306                        | 284                        | 590          |
|          | <b>Percent in the primary periods</b>           | <b>67.0%</b>               | <b>66.5%</b>               | <b>66.8%</b> |
|          | <i>Percent in the secondary periods</i>         | <i>13.4%</i>               | <i>13.4%</i>               | <i>13.4%</i> |
|          | Percent out of the primary or secondary periods | 19.6%                      | 20.1%                      | 19.8%        |

|                 | Single Day Meetings in Morning Prime Time |     |     |     |     |     |            |
|-----------------|-------------------------------------------|-----|-----|-----|-----|-----|------------|
|                 | M                                         | T   | W   | Tr  | F   | Sa  | M-Sa Total |
| Total           | 16                                        | 7   | 7   | 5   | 33  | 22  | 90         |
| % of M-Sa Total | 15%                                       | 6%  | 6%  | 5%  | 30% | 20% |            |
|                 |                                           |     |     |     |     |     |            |
| Total           | 16                                        | 7   | 7   | 5   |     |     | M-Tr Total |
| % of M-Tr Total | 41%                                       | 18% | 18% | 13% |     |     | 35         |

Source: California Community Colleges, Chancellor Office, Data on Demand Fall 2014 MIS Referential File XF, Sessions; analysis by Cambridge West Partnership, LLC



Evening classes, those starting at 4:30 pm or later, which were scheduled to meet two-days-a-week, showed even greater variety of starting and ending times.

Table 25: AVC Evening Full-term Schedule Pattern Analysis, fall 2014

| Period # | Period Times                | # Full-term Classes  |                      | Total      |
|----------|-----------------------------|----------------------|----------------------|------------|
|          |                             | Monday and Wednesday | Tuesday and Thursday |            |
| 7        | 5:00 PM                     | 8                    | 10                   | 18         |
| 7        | 5:15 PM                     | 11                   | 3                    | 14         |
|          | starts between 5:16-5:59 pm | 3                    | 4                    | 7          |
| 8        | 6:00 pm                     | 8                    | 8                    | 16         |
|          | starts between 6:01-6:59 pm | 1                    | 0                    | 1          |
| 9        | 7:00 pm                     | 16                   | 18                   | 34         |
|          | starts >7:00 pm             | 7                    | 6                    | 13         |
|          | <b>Total</b>                | <b>54</b>            | <b>49</b>            | <b>103</b> |

|                 | Single Day Meetings in Evening Prime Time   |     |     |     |    |    |       |            |
|-----------------|---------------------------------------------|-----|-----|-----|----|----|-------|------------|
|                 | M                                           | T   | W   | Tr  | F  | Sa | Total |            |
| Total           | 61                                          | 57  | 52  | 46  | 3  | 0  | 219   |            |
| % of M-Sa Total | 28%                                         | 26% | 24% | 21% | 1% | 0% |       |            |
| Starting Times  | Count of Evening Sections by Starting Times |     |     |     |    |    |       | % of Total |
| 4:30            |                                             | 1   |     |     |    |    | 1     | 0.5%       |
| 4:40            |                                             |     | 1   |     |    |    | 1     | 0.5%       |
| 5:00            | 4                                           |     | 1   | 1   |    |    | 6     | 2.7%       |
| 5:15            | 1                                           |     |     |     |    |    | 1     | 0.5%       |
| 5:30            |                                             |     |     | 1   |    |    | 1     | 0.5%       |
| 6:00            | 14                                          | 12  | 12  | 12  | 1  |    | 51    | 23.3%      |
| 6:15            | 2                                           |     |     | 4   |    |    | 6     | 2.7%       |
| 6:30            |                                             | 1   |     |     |    |    | 1     | 0.5%       |
| 7:00            | 40                                          | 43  | 38  | 28  | 2  |    | 151   | 68.9%      |
|                 | 61                                          | 57  | 52  | 46  | 3  | 0  | 219   |            |

Source: California Community Colleges, Chancellor Office, Data on Demand Fall 2014 MIS Referential File XF, Sessions; analysis by Cambridge West Partnership, LLC

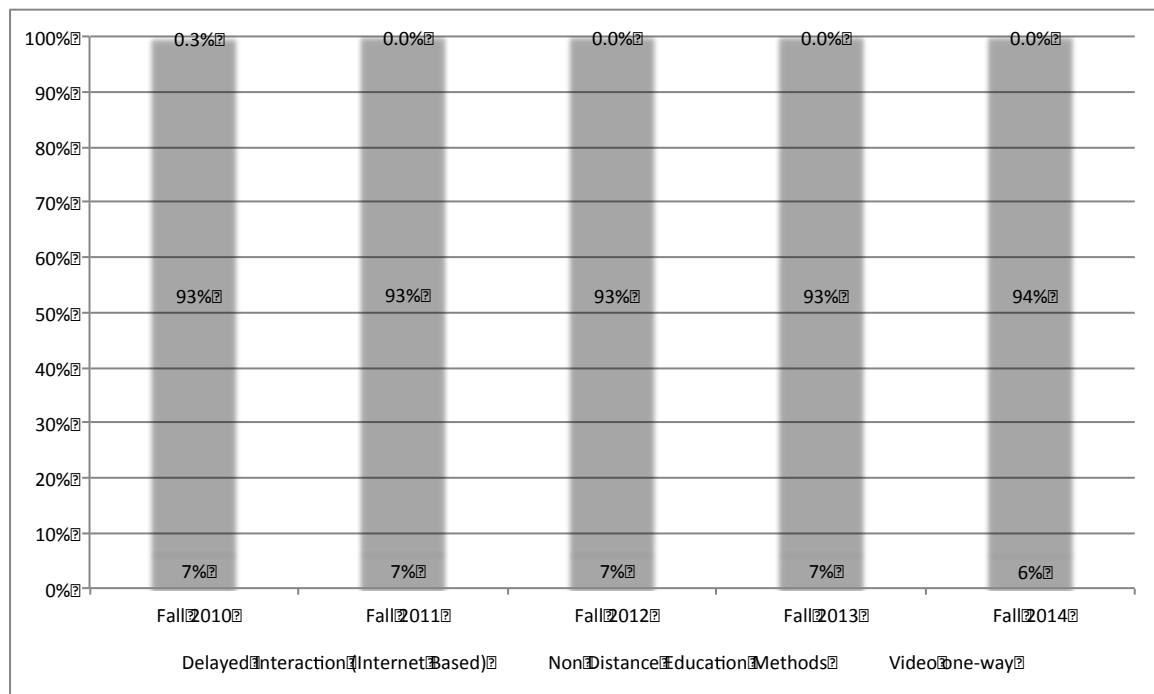
The College may want to consider a more detailed study of the classes that are scheduled to start or end at times other than the primary day instructional periods or those that meet in the evening hours, but vary in their starting times, to determine if potential class conflicts might be reduced. Also there may be merit in attempting to craft a common passing time during the prime morning hours. If conflicts among class meeting times were reduced, it would provide students with greater access to instruction they need to complete their programs of study.

In recent terms the College has undertaken a study of scheduling issues and student needs to complete degrees and certificates offered. Past enrollment data, fill rates, waiting list information, etc. The analysis also considered the role of each course in the three general education patterns. The result of this study was to produce a two-year projection of offerings from fall 2015 through summer 2017. For each course, the plan indicates the future term and block of time (morning, afternoon, evening) and the number of course sections that are to be offered. It also indicates the campus (Lancaster vs. Palmdale) where each section will be scheduled.

The College has offered classes in multiple formats in an effort to provide access to students who otherwise would not be able to attain a college education. In addition to traditional face-to-face classes, the College offers courses online, and has offered one-way video classes, which stopped after fall 2010. In fall 2014 two-way audio/video FTES exceeded online FTES by only 1%.

Over the past five fall terms, online FTES has increased by 5%. FTES generated through face-to-face classroom meetings has increased 10% while FTES produced through video one-way means stopped after fall 2010.

Chart 17: FTES Trends by Method of Instruction



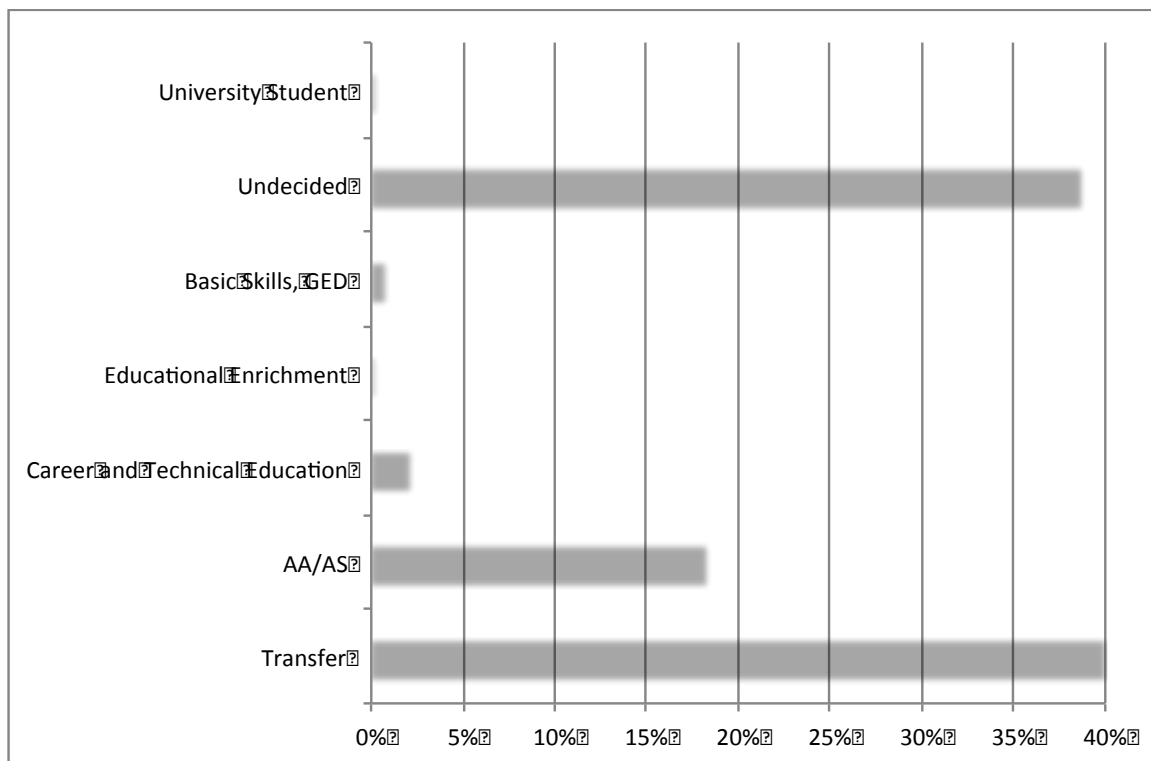
Source: California Community Colleges, Chancellor's Office, Data Mart; analysis by Cambridge West Partnership, LLC.

## Students Who Attend the College

Students enroll in the College with hopes and dreams to pursue their goals in life. Sometimes those goals are not well formulated or adequately informed at the start of their college experience, but the matriculation process is intended to assist students to navigate the curriculum as they traverse through higher education.

The chart below reflects the initial goals reported on the application for admission to Antelope Valley College in the fall 2014 semester. The majority of the students who submitted an application fell in the undecided or transfer categories (40% each). Students who intended to obtain a two-year academic or vocational degree without transferring made up 18% of the total. Career and technical education students who wished to obtain or maintain a vocational certificate accounted for 2% of the total. A small number of students, 0.1%, reported their purpose for enrolling was for educational enrichment. Those seeking basic skills curriculum or to complete high school credits accounted for 0.7%. Current university students taking only a course or two at AVC made up 0.2% of the total.

Chart 18: Fall 2014 Term Application Goal Trends



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

Additional information about the prospective majors or fields of study for students attending the College can be found in the annual Fact Books prepared by the Department

of Institutional Effectiveness, Research and Planning. Those Fact Books contain a profile of student characteristics from 2009-10 to 2014-15 that are summarized as follows:<sup>25</sup>

- Female students out-numbered males, on average by 17%.
- The traditional-age college student (18 to 24) represented 60% of the student body. However, since 2009-10 the 19 or less group declined by 5% while the 20-to-24 age group increased by 4%. The 25 to 29 year old group averaged 13% of the student body and has increased 2%.
- On average the largest racial/ethnic group was the Hispanic student population (38%) followed by the White group (26%) and the African American group (21%). The greatest gain between 2009-10 and 2014-15 was in the Hispanic student group (19%).
- Twice as many students attended on a part-time basis (less than 12 units) compared to those enrolled in 12 units or more.
- Between 2009-10 and 2014-15 the portion of students attending classes in the day grew from 76% to become 85%, a 9% gain. The evening student portion dropped by 7% (22% down to 17%).



Health and Science Building

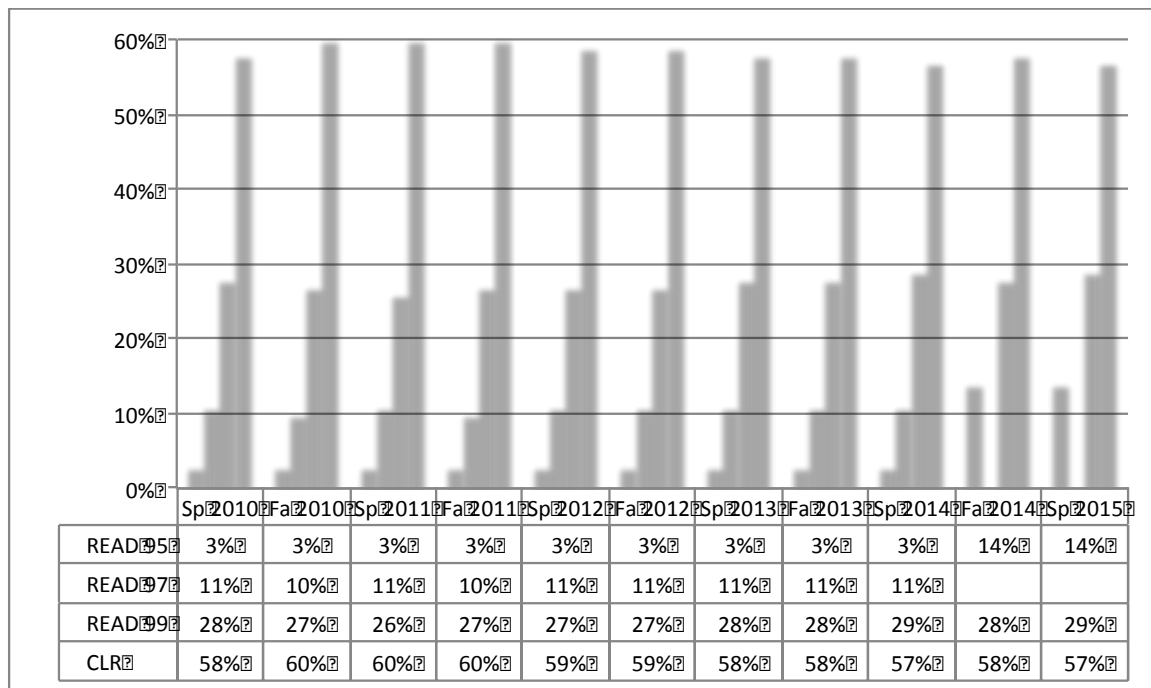
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<sup>25</sup> Antelope Valley College Department of Institutional Effectiveness, Research, and Planning. 2015 Fact Book.

The College provides placement assessment experiences for students in the disciplines of reading, writing, and math. For those students participating in the placement experience from spring 2010 to spring 2015 the results draw a portrait regarding the extent to which the students were prepared for college-level curriculum.

Of the 46,608 reading placement exams from spring 2010 to spring 2015, 43% of the students were placed into curriculum below the transfer level (READ 95, 97 or 99) while 58% achieved college level reading (CLR) scores and met the graduation requirement.

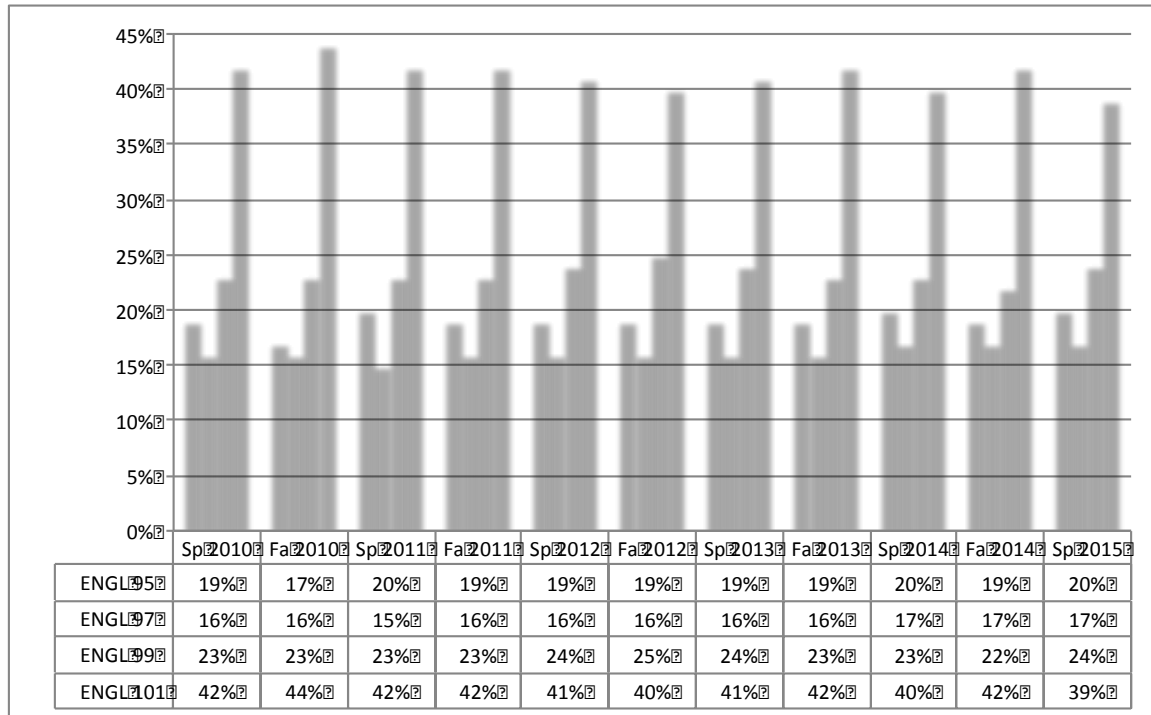
Chart 19: Reading Placement Results



Source: Antelope Valley College Office of Assessment; analysis by Cambridge West Partnership, LLC

Of the 12,007 placement exams to test writing skills between spring 2010 and spring 2015, 59% of the students were placed into curriculum below the transfer level (ENGL 95, 97 or 99). In the graphic below, ENGL 101 is the transfer course.

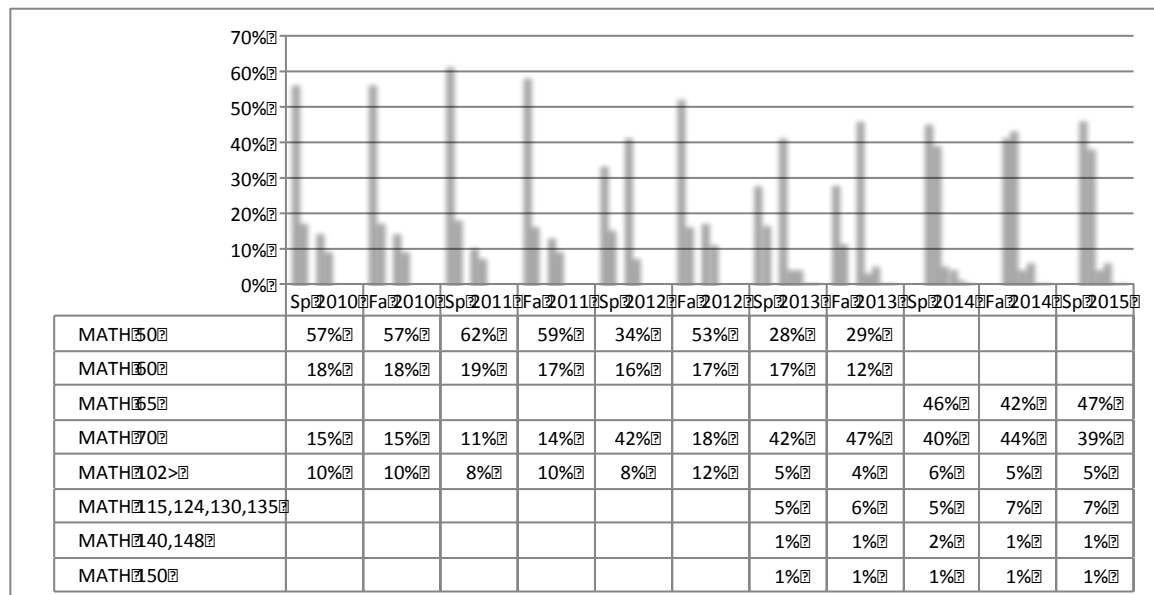
Chart 20: Writing Placement Results



Source: Antelope Valley College Office of Assessment; analysis by Cambridge West Partnership, LLC

Of the 38,635 math placement exams between spring 2010 and spring 2015, 87% of the students were placed into curriculum below the transfer level (MATH 50, 60, 65, 70 and 102). In the graphic below, MATH 102 is Intermediate Algebra and meets the requirements for the Associate Degree. MATH 115, 124, 130, 135, 140, 148 and 150 are the transfer courses. The structure of the curriculum in this discipline changed in spring 2014.

Chart 21: Math Placement Results



Source: Antelope Valley College Office of Assessment; analysis by Cambridge West Partnership, LLC

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

### Student Services

The College has established a number of student support offices that provide the services described in the following narrative.

#### *Enrollment Services—*

- The Admissions & Records, Evaluation/Graduation, and Transcript Departments serve as a continuous resource for students throughout their academic experience. Services cover admissions, registration transactions, academic records and grades, athletic intercollegiate eligibility, petitions, evaluation of transcripts for the purpose of awarding degrees and certificates, enrollment verifications, the production of a timely and accurate transcript, and processes enrollment verifications and subpoenas.
- The Assessment Center offers a computerized assessment test to students in order to determine ability levels in Reading, Writing, and Math. This process enables students to enroll in the appropriate courses, including courses designed to prepare for college-level work. Assessment services are also provided at the Palmdale Center Mondays, Tuesdays, and Wednesdays.

*Associated Student Government* – The Associated Student Organization (ASO) of Antelope Valley College is the campus student government. Participating students coordinate the representation and action of student opinion. ASO supports the students by maintaining and promoting a social, cultural, and educational atmosphere at Antelope Valley College. The Associated Student Government provides students an opportunity to engage in participatory governance at the College. Membership also entitles students to discounts for admission to various events and for goods and services provided by local merchants. The ASO also designed the Hearts and Hands Pantry to assist current AVC students who are making forward progress in their academic pursuits and are homeless and/or hungry in circumstances where supplemental nutritional snacks/food will benefit their academic success. Lastly, the ASO developed Marauder Academic Peer Success (MAPS), which is a student run program dedicated to helping students reach their full potential by setting and acquiring attainable goals through a mentor and mentee structure.

*Behavioral Intervention Team (BIT)* – The BIT is dedicated to a proactive, coordinated and planned approach to the identification, prevention, assessment, management, and reduction of interpersonal and behavioral threats to the safety and wellbeing of Antelope Valley College students, faculty, staff, and visitors.

*Bookstore* – The Bookstore is located in the Student Services building. Students can purchase new and used textbooks, rent textbooks, purchase and download eBooks, and sell textbooks. The Bookstore also offers a service to purchase textbooks online.

*California Work Opportunities and Responsibility to Kids (CalWORKs)* – The California Work Opportunity and Responsibility to Kids (CalWORKs) program is designed to assist students who are currently receiving cash aid from the county. The primary purpose of



the CalWORKs program is to prepare students to make a successful transition from welfare to employment. CalWORKs participants are required to participate in educational and other work activities. The CalWORKs program staff are committed to creating an environment which promotes: a spirit of truth, mutual understanding and respect; education and training that leads to family self-sufficiency; student empowerment and advocacy; student success; development of the whole person; development and achievement of individual goals, and lifelong learning skills. Students receive academic counseling; career counseling; case management; coordination, and advocacy with Los Angeles and Kern County Department of Public Social Services; books, supplies and special fees request, and referrals to other support programs and services at the College including work study.

*Career Center* - The purpose of the Career Center is to serve the career development needs of prospective, current, and returning students who may be struggling with choosing or changing their major, are uncertain about their career path, or would like assistance with career planning. The Career Center inspires and empowers individuals by facilitating an environment that fosters self-exploration and emphasizes making informed choices by taking an active role in the career planning process.

*Cashier's Office* - The Cashier's Office receives payments for tuition fees and parking permits.

*Child Development Center* - The Child Development Center (CDC) is an on-campus laboratory preschool, which provides developmental programs for children two years to five years of age. The CDC is licensed by the State of California. The CDC is open Monday through Friday, with morning and/or afternoon sessions. Enrollment is open to students, faculty, staff, and the community. A state preschool program offers subsidized preschool to eligible children.

*Counseling* – The Counseling Center is designed to help students plan their educational program, provide information on transfer, degree, and certificate requirements, assist with career planning, and help solve personal problems. The faculty members (counselors) and support staff are proactive in providing orientation, assessment, educational planning, success and probation/dismissal workshops, and follow-up services to students.

*Extended Opportunity Programs & Services (EOP&S)* - The Extended Opportunity Program and Services (EOP&S) program supports the primary goals of recruiting, retaining, and transitioning students who have language, social, economic, and/or educational disadvantages. The program provides student supports which are “over, above, and in addition” to the regular programs and services offered by the college. EOP&S is a California Community College program to assist low-income, educationally disadvantaged, students who want to attend college. The program receives state and district funds to recruit, enroll and support identified students that may not otherwise seek higher education.

*Financial Aid & Scholarships* – The purpose of Financial Aid is to ensure that all students have access to a college education by assisting with the costs. Funds are available through federal, state and private programs and can be offered in the form of grants, loans and scholarships. The Financial Aid Office staff at the college is available to assist students with applying for, obtaining, and understanding financial aid.

*First Year Experience Program (FYE)* – The FYE Program assists students in making a smooth and successful transition into college life through registration events, orientation, peer mentoring, summer bridge, learning communities, access to AVID for Higher Education, weekly empowerment emails, FYE Faculty, and FYE counselors. The office administers the newly launched (2014) Bridge to Success project. That project implements the First Year Experience (FYE) and campus wide Advancement Via Individual Determination (AVID) for Higher Education initiatives.

*Health Services* - The Student Health Services provides health care and education to students in support of their educational goals. The Student Health Center serves as a health and medical resource for the campus community and provides medical, dental, and mental health services for students who are enrolled and attending classes. In promoting wellness, both physical and emotional, students are encouraged to choose positive life-styles.

*Information and Welcome Center* - The Information & Welcome Center (Outreach) receives in-person, phone, and virtual inquiries, and provides information and referral services for college programs, services, and procedures to students, faculty, staff, and the community at-large. The office conducts outreach and recruitment activities for the College.

*International Students* – The International Student program provides support to foreign students attending the College. Prospective sponsors of an international student or an international student may request Antelope Valley College to issue an I-20 for an F-1 International Student Visa.

*Job Placement* - The Job Placement Center (JPC) is a resource and information center available to current students, community members, and alumni. The JPC works with current students to find employment on campus while in school and to enhance their learning experiences. Also, the JPC assists students to become fully prepared to search for employment opportunities that are in line with their educational goals and career objectives. The JPC connects with local, regional, and global employers to offer opportunities to the students, alumni, and community who participate with the center by direct outreach, and semiannual job fairs.

*Office of Student Disabilities (OSD)* – The Office for Students With Disabilities (OSD) program provides support services, specialized instruction, and educational accommodations to students with physical, cognitive and temporary disabilities so that they can participate as fully and benefit as equitably from the college experience as their non-disabled peers. An Academic Accommodation Plan (AAP) is developed for each

student which links student's goals, curriculum program, and academic accommodations to his/her specific disability related educational limitation. The Office for Students With Disabilities encourages students to be as independent and self-reliant as possible. OSD staff work closely with each student to assess their needs and to provide course adjustments, auxiliary aids and support services that directly address a student's functional limitations as a result of their disability.

*Safety and Security* – The Antelope Valley College Safety and Security Office protects and to serves students, employees, and guests. The staff works as a team with every division of this campus, along with local law enforcement and community groups, to instill a safe learning environment to all who come to Antelope Valley College.

*Student Equity Program*- The Student Equity Department provides programming and support activities to students who have been identified as having achievement gaps at AVC. The program monitors student success data and collaborate with other programs throughout the College to increase access, course and degree completion, and transfer. The program also provides professional development opportunities to the faculty and staff. The program provides resources for student development activities that increase engagement and connection to the College.

*Student Transfer and Academic Retention (STAR)*- STAR is a federally funded student support services program designed to identify promising students and provide instructional support services above and beyond what is currently offered at the College. The program aims to increase college retention and graduation rates of eligible participants and facilitate their process of transition from the community college to a four-year institution.

*Student Life* - The Student Life Program is designed to assist in developing citizenship and leadership. An attempt is made to provide activities of interest to each student.

*Study Abroad* – Student Services offers various study abroad options to our students such as Spain and England.

*Transfer Center* - The Transfer Center recruits, and motivates Antelope Valley College students representing diverse backgrounds, as well as all socioeconomic levels. It provides appropriate support services enabling students to select and apply to four-year colleges and universities in order to complete a baccalaureate degree. The Center is a liaison between Antelope Valley College and the campuses of the University of California, California State University System, in-state independent institutions, and out-of-state institutions.

*Veteran's Affairs Office* – The Veteran's Affairs Program provides assistance through education, certification, and guidance to military veterans and their dependents in achieving their educational objectives effectively. It promotes the retention, graduation, and transfer of military veteran students and their dependents.

Table 26: Antelope Valley College Online Services

| Service Area & Service                                                                                                       | Online Interactivity | Notes                                                                    |
|------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------------------------------|
| <i>Admissions &amp; Records</i>                                                                                              |                      |                                                                          |
| Apply online                                                                                                                 | X                    |                                                                          |
| Enroll in classes, add/drop classes, view class schedule                                                                     | X                    |                                                                          |
| Manage wait list                                                                                                             | X                    |                                                                          |
| Update contact information                                                                                                   | X                    |                                                                          |
| Make payments (Student Accts. Below)                                                                                         | X                    |                                                                          |
| Receive student & faculty emails                                                                                             | X                    |                                                                          |
| International student application (International Office)                                                                     | X                    |                                                                          |
| Printable forms                                                                                                              | X                    | Students can print forms and submit in person, by mail or FAX March 2016 |
| Order Transcripts                                                                                                            | X                    |                                                                          |
| eTranscripts                                                                                                                 | X                    |                                                                          |
| <i>Articulation</i>                                                                                                          |                      |                                                                          |
| Articulation transfer agreements                                                                                             | X                    | Via ASSIST.org                                                           |
| Time availability                                                                                                            | X                    |                                                                          |
| <i>Assessment</i>                                                                                                            |                      |                                                                          |
| Practice tests and test guides                                                                                               | X                    |                                                                          |
| Testing schedule (Testing during hours of operation at the Lancaster campus and testing as scheduled at the Palmdale Center) | X                    |                                                                          |
| <i>CalWORKS</i>                                                                                                              |                      |                                                                          |
| Book Requests                                                                                                                | X                    | Students can print a book request form and submit it in person           |
| Links to Outside Resources                                                                                                   | X                    |                                                                          |
| Online Intake Application                                                                                                    | X                    |                                                                          |
| <i>Career Center</i>                                                                                                         |                      |                                                                          |
| Virtual Career Planning                                                                                                      | X                    | Via Bridges.com                                                          |
| CA Employment Development Dept. link                                                                                         | X                    |                                                                          |
| Bureau of Labor Statistics                                                                                                   | X                    |                                                                          |
| Career Development Guide                                                                                                     | X                    |                                                                          |
| Career/Major exploration links                                                                                               | X                    |                                                                          |
| Job Starter Career Guides                                                                                                    | X                    |                                                                          |
| O*NET                                                                                                                        | X                    |                                                                          |
| Interview tips                                                                                                               | X                    |                                                                          |
| Salary potential/COLA calculator                                                                                             | X                    |                                                                          |

| Service Area & Service                                                                                                                                                                                                      | Online Interactively | Notes |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------|
| <i>Commencement</i><br>Video of previous commencement<br>Basic information<br>Link to photographer's webpage<br>Link to AVC Alumni website and Facebook page                                                                |                      |       |
| <i>Job Placement</i><br>Basic Information<br>Job Fair Information and Registration Forms<br>Job Placement Registration Form<br>Intent to Enroll Form<br>Job Opportunities<br>Student Worker Booklet<br>Workshop Information |                      |       |
| <i>Behavioral Intervention Team (BIT)</i><br>Basic Information<br>Referral Form<br>Handbook Guide                                                                                                                           |                      |       |
| <i>First Year Experience (FYE)</i><br>Application<br>Basic Information<br>Facebook                                                                                                                                          |                      |       |
| <i>Students on Academic Rise (SOAR)</i><br>Basic Information<br>Application<br>Weekly Newsletter                                                                                                                            |                      |       |
| <i>Student Health Services</i><br>Basic Information<br>External Links to Resources<br>Online Newsletter<br>Facebook<br>Link to Student Health 101 Online Magazine                                                           |                      |       |
| <i>Study Abroad</i><br>Basic Information<br>Link to External Information<br>Application                                                                                                                                     |                      |       |
| <i>Associated Student Organization (ASO)</i><br>Basic Information<br>Club Forms<br>Faculty/Student Club Handbook<br>MAPS Applications for Mentor/Mentee                                                                     |                      |       |
| <i>Student Equity</i><br>Basic Information<br>Online registration to events and activities<br>Funding Request Forms                                                                                                         |                      |       |
| <i>International Students</i><br>Online Forms, docs, and information                                                                                                                                                        |                      |       |
| <i>Counseling</i><br>Online Student Success Workshop Videos                                                                                                                                                                 | X                    |       |

|                                                              |   |                                                                          |
|--------------------------------------------------------------|---|--------------------------------------------------------------------------|
| Online orientation                                           | X |                                                                          |
| Link to Student Ed Plan website                              | X |                                                                          |
| <i>Transit</i>                                               |   |                                                                          |
| Basic information                                            | X |                                                                          |
| <i>Disability Support Services</i>                           |   |                                                                          |
| Basic information and agency links                           | X |                                                                          |
| <i>Equal Opportunity Programs &amp; Services (EOPS)/CARE</i> |   |                                                                          |
| Basic information                                            | X |                                                                          |
| Orientation/quiz                                             | X |                                                                          |
| <i>Veterans</i>                                              |   |                                                                          |
| Basic information and forms available                        | X |                                                                          |
| <i>Financial Aid &amp; Scholarships</i>                      |   |                                                                          |
| Net calculator available;                                    | X |                                                                          |
| Apply for financial aid online                               | X |                                                                          |
| Online scholarship application                               | X |                                                                          |
| Forms                                                        | X | Forms can be filled out online and printed for in-person/mail submission |
| Financial Literacy                                           |   |                                                                          |
| <i>Library</i>                                               |   |                                                                          |
| Online resources & catalog search                            | X |                                                                          |
| <i>Online Instructional Supports</i>                         |   |                                                                          |
| Online tutoring                                              | X |                                                                          |
| <i>Bookstore</i>                                             |   |                                                                          |
| Order textbooks                                              | X |                                                                          |

| <b>Service Area &amp; Service</b>                            | <b>Online Interactively</b> | <b>Notes</b>                                                             |
|--------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------|
| <i>Counseling</i>                                            |                             |                                                                          |
| Online Student Success Workshop Videos                       | X                           |                                                                          |
| Online orientation                                           | X                           |                                                                          |
| Link to Student Ed Plan website                              | X                           |                                                                          |
| Review probation or dismissal status                         | X                           |                                                                          |
| Review completion of core SSSP services                      | X                           |                                                                          |
| <i>Transit</i>                                               |                             |                                                                          |
| Basic information                                            | X                           |                                                                          |
| <i>Office for Students with Disabilities (OSD)</i>           |                             |                                                                          |
| Basic information and agency links                           | X                           |                                                                          |
| Variety of program forms                                     | X                           |                                                                          |
| New student intake packet                                    | X                           |                                                                          |
| Accessible Information Management (AIM)                      | X                           | Spanish & English Spring 2016                                            |
| <i>Equal Opportunity Programs &amp; Services (EOPS)/CARE</i> |                             |                                                                          |
| Basic information                                            | X                           |                                                                          |
| Orientation/quiz                                             | X                           |                                                                          |
| <i>Veterans</i>                                              |                             |                                                                          |
| Basic information and forms available                        | X                           |                                                                          |
| <i>Financial Aid &amp; Scholarships</i>                      |                             |                                                                          |
| Net calculator available;                                    | X                           |                                                                          |
| Apply for financial aid online                               | X                           |                                                                          |
| Online scholarship application                               | X                           |                                                                          |
| Forms                                                        | X                           | Forms can be filled out online and printed for in-person/mail submission |
| Financial Literacy                                           | X                           |                                                                          |

|                                                         |   |  |
|---------------------------------------------------------|---|--|
| <i>Library</i><br>Online resources & catalog search     | X |  |
| <i>Online Instructional Supports</i><br>Online tutoring | X |  |
| <i>Bookstore</i><br>Order textbooks                     | X |  |

| Service Area & Service                                                                                                                                       | Online Interactively | Notes                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------|
| <i>Student Activities</i><br>Basic information<br>College Facebook page                                                                                      | X<br>X               | External link/accessibility |
| <i>Student Accounts</i><br>Payment of fees                                                                                                                   | X                    |                             |
| <i>Student Bookstore</i><br>Order or rent texts online                                                                                                       | X                    |                             |
| <i>Transfer Center</i><br>External transfer links available<br>Transfer assistance links<br>Four-year college/university links<br>IGETC/CSU Educational Plan | X<br>X<br>X<br>X     | Via ASSIST.org              |

Source: Antelope Valley College. Student Services, 2015

### Academic Support

*First Year Experience* – The FYE program helps students make a smooth and successful transition to college life. Participating in all of the FYE activities helps students to build a firm foundation of success that will provide support during the first year at AVC. The FYE program supports first generation college students who tested at the basic skills level or two levels below.

*Honors Program* - The Honors Transfer Alliance Program offers participants the opportunity for priority admission to many major universities throughout the state. A seminar-like atmosphere stems from the small class size (maximum of 21), leading to lively discussions between students and professors. Students are encouraged to work closely with faculty to pursue creative and/or independent projects. The program also stresses writing, research and critical-thinking skills. The course offerings are designed to facilitate transfer to a four-year university.

*Instructional Multimedia Center (IMC)* – The Center supports and assists all instructional programs. The staff ensures that all persons in the College learning community become skilled in the selection and use of multimedia tools and technologies as well as skilled in the exploration of ideas. The IMC contains over 5,000 titles of programs available for student viewing. The IMC houses multimedia in all disciplines for users to complete research for term papers, as reference material to write a paper, for self-tutoring purposes, or for enjoyment to fill time between classes. The duplication of audiotapes is a service provided to students free of charge. The CD duplication of instructor-provided materials is a service to students that is provided at a nominal fee.

*Learning Center* – The Center is a one-stop facility designed to provide easy access to multiple academic support services for students and faculty. Students are provided access to the Internet, word processing, printing, media-enriched language instruction, video/computer-assisted instruction, supervised tutoring, and supervised learning assistance.

*Study Abroad* – The Study Abroad program in Spain offers students an opportunity to join with community college students from other institutions for a semester of study overseas. Participating students enroll in 12-14 units of college credit in classes designed to enhance the study abroad experience and maximize the benefits of living and studying in Spain. Most classes meet general education requirements and are transferable for a bachelor's degree. Faculty members from Antelope Valley College and/or from colleges that are members of the Southern California Foothills Consortium (SCFC) teach these courses. The program also includes Salamanca-based instructors for some of the Spanish language courses. Students are encouraged to enroll in a Spanish course, but Spanish is not required.

*Tutoring* – Tutoring services are available at the three Centers within the Learning Center and are offered to all students enrolled at the College. General tutoring, Supplemental Instruction (SI), and specialized tutoring which includes ESL, American Sign Language and science courses, are offered at scheduled days and times by peer tutors. Students can also receive assistance with reading and writing assignments.

*Academic Skills* - The Academic Skills workshops help students develop the academic skills necessary to be successful at Antelope Valley College. A faculty-learning specialist works with each student to determine areas of academic strength and need. The participating student is then assisted in designing a plan to achieve his or her academic goals.

*Computer and Media* - This Center offers students the use of a computer for academic and personal activities and the staff in this area provides students with the necessary information to use the computers, printers, copier, and the Internet. Students may check out headphones and educational DVDs. Additionally, faculty may reserve computers for their specialized class exams and other needs.

*ESL Success Center* – The purpose of the ESL Success Center is to offer a friendly and non-threatening resource-filled environment where AVC ESL students are encouraged to improve their English language skills (reading, writing, listening, speaking, culture, vocabulary, grammar, and pronunciation) through independent study, one-on-one or small group tutoring, or student group learning. As of spring 2015, ESL tutoring for writing and grammar was moved to the Writing Center.

*Math Center* – The Math Center offers services to support all math and math related classes (i.e. vocational). A Math Learning Specialist, Math Tutorial Specialist, and well-trained tutors provide programs and services to help students develop math learning and



study skills, assist students with homework assignments or test preparation, and clarify any confusing topics.

*Reading Center* – The Reading Lab provides students enrolled in a variety of reading classes with classroom reading instruction and computer-assisted instruction. In addition to free appointments for any student enrolled in a reading class, the Reading Lab schedules some tutoring for other campus-wide students who need tips and handouts on developing better textbook reading strategies, improved study skills, or more effective use of study guides and study aids.

*Supplemental Instruction* – Supplemental Instruction (SI) promotes student retention, transfer rates, and degree or certificate completion. This program targets classes that are traditionally difficult. The main focus of SI is to help students learn how to learn and how to complete tests for a specific class. Students work with a well-trained SI leader who meets with them outside of class to review class lectures and discuss difficult concepts in small group sessions.

*Writing Center* – The Writing Center provides a supportive learning environment where all Antelope Valley College students have the opportunity to improve their writing skills and to become independent, successful learners.

#### Distinctive Academic Transition Programs

*AVC2CSU Cohort Pathway Program* – AVC2CSU is a cohort pathway program designed to allow students pursuing AS-T and AA-T degrees in Administration of Justice, Business Administration, Kinesiology and Sociology to complete the coursework and achieve guaranteed admission into a CSU within two years. AVC2CSU is an inclusive program that works with students prior to entrance into a pathway to help the student prepare to assess at college level. Each cohort pathway can support up to 30 students. The benefits of the AVC2CSU cohort pathway program include guaranteed course availability, dedicated Education Advisor, single point of contact Counselor, dedicated Faculty Mentor, Student mentor, assessment prep courses and workshops, book rentals, professional talks and workshops with industry leaders, CSU campus tours, embedded services, workshops and clubs, and partnerships with First Year Experience (FYE), Student Equity and Community Outreach. AVC2CSU is a comprehensive program designed to improve student success, student retention and to provide for expeditious degree attainment.

#### *California State University, Bakersfield at Antelope Valley Regional Center*

CSUB has had a presence on the Antelope Valley College campus for many years as a degree completion, upper division curriculum teaching location. The University offers six undergraduate degrees and five graduate degrees on the community college campus. The School of Social Sciences and Education also provides teacher credential offerings. Students can avail themselves of on-site advising, tutoring services, computer laboratories, health services, library services, core student services (admissions, registration, records, counseling, etc.), and student life programs.

*Community College Pathway to Law School* - The AVC Law Scholars program is designed to prepare community college students for admission to law school in California. Program benefits include financial aid counseling, academic advising, LSAT prep, exposure to the legal profession and other steps designed to increase the interest of community college students in law school. The program seeks to bring diversity to the law profession.

#### *Lancaster University Center*

For several years Antelope Valley College has been in a partnership with the Lancaster University Center. The Center started as a partnership among the City of Lancaster, CSU Bakersfield, and CSU Fresno. The Center, on Division Street in Lancaster, has been the site where upper division engineering courses are offered that enable students to finish the Bachelor of Science Degree without leaving the area. As of January 2016, the CSU Long Beach College of Engineering provides the undergraduate degree curriculum. The Accrediting Board for Engineering and Technology (ABET) accredits the CSULB engineering program. Highly motivated students and working professionals can also pursue a Master's Degree in aerospace and electrical engineering through programs now sponsored by Cal Poly Pomona. An electrical and mechanical engineering laboratory has been funded through generous donations from major employers in the region. Antelope Valley College has co-authored successful federal grant applications with the Lancaster University Center faculty for the purpose of stimulating interest in Science, Technology, Engineering and Math (STEM) careers.

*Students on the Academic Rise (SOAR)* – SOAR High School is a specialized high school located on the Antelope Valley College campus but it is part of the Antelope Valley Joint Union High School District. It is an Early College High School, which integrates college courses into the high school curriculum. SOAR students are treated as college students. Successful students will receive both a high school diploma and an Associate's Degree within five years. SOAR High has an emphasis in mathematics, science and engineering. Parents and students are encouraged to be actively involved in the program. Average students who are high potential but low performing in the traditional educational system and who have not yet begun high school are encouraged to apply.

*Student Transfer and Academic Retention (STAR)* - STAR is a Federal Student Support Services program. It is designed to identify promising students and provide instructional support services above and beyond what is currently being offered. The program facilitates increase in the college retention and graduation rates of eligible participants, and facilitates the process of transition from one level of higher education to the next. The program assists 160 eligible first-generation, low income, and/or students with a documented disability, through the use of a variety of services, to clarify their goals, succeed academically in their chosen program of study, and to graduate and/or transfer to the university level.

#### *Library*

The Library located in Building “L” primarily serves students, faculty and staff but is open for public use. The library offers books, videos and DVD's, which can be located

through the online catalog from any location that has an Internet connection. Magazines, newspapers, and journal articles are available through EbscoHost. From the College library home web page students can also access Congressional Quarterly Researcher for position papers, Science Online, Auto Repair Reference Center, and African American Studies Center databases, and subject-oriented electronic reference books. These electronic resources serve the students at the Palmdale center as well.

The library offers online tutorials for students who need assistance completing library research or navigating the various electronic databases. There are a variety of helpful links for students looking for assistance with citing materials, research methods, and understanding copyright and plagiarism rules. Students can reserve a group study room for two-hour periods. Other services provided by the library include inter-library book loans, free Wi-Fi, and copy machines. Upon request the library faculty members offer research methods workshops and teach four credit courses in library science topics to support student learning.

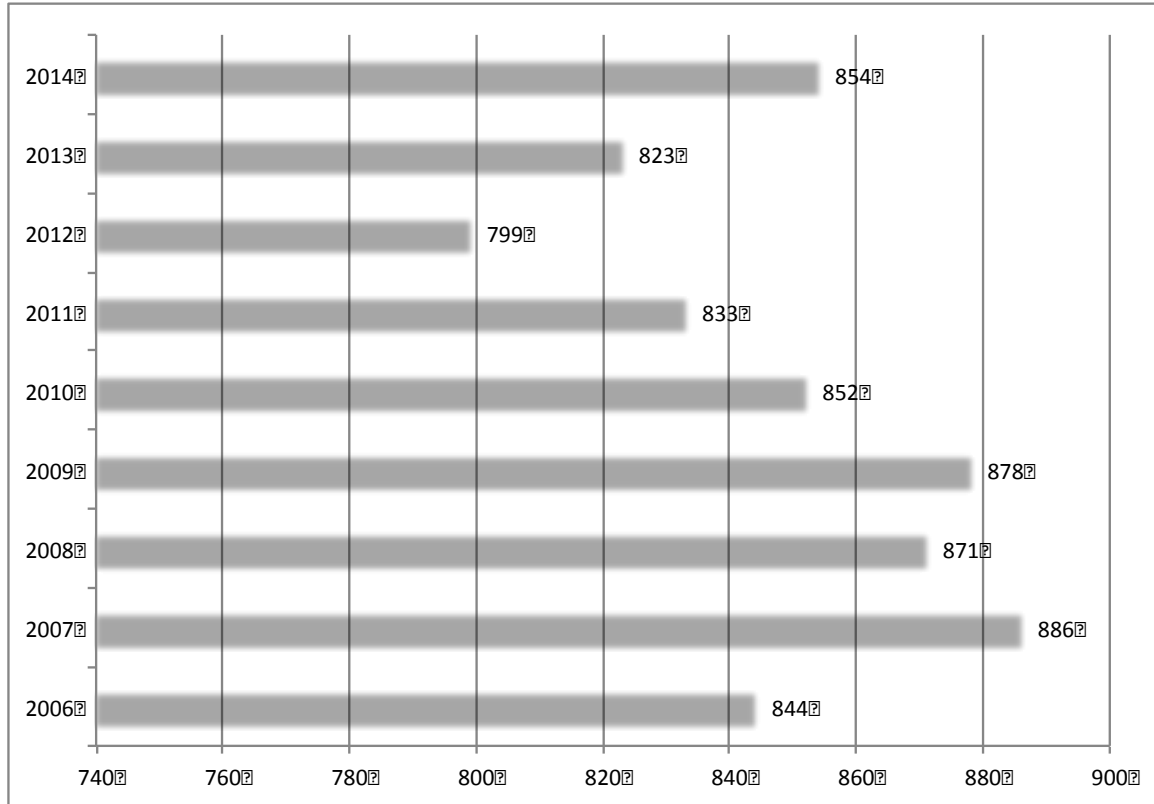
Based on input from students and college employees regarding the tremendous need to build the library's print collection, \$215,000 was allocated during 2015-16 for this. In addition, some of that funding is being utilized for the development of the new Palmdale Center's Library collection.

#### College-wide Staffing Patterns

The College has experienced a 1.2% *reduction* in the workforce headcount between fall 2006 and fall 2014. Fall 2007 saw the largest headcount at 886 employees. Between fall 2009 and fall 2012 the College purposely reduced the number of employees with the headcount falling to 799 in fall 2012. As the financial situation stabilized, the College increased employees in fall 2013 and 2014.

Between fall 2006 and fall 2014 there was a 19.2% reduction in educational administrators. Full-time faculty saw an 8.9% reduction. The biggest gain in employee headcount was from the classified staff, an increase of 12.7%. As state funding was restored, all employee groups experienced an *increase* in headcount from fall 2012 to fall 2014.

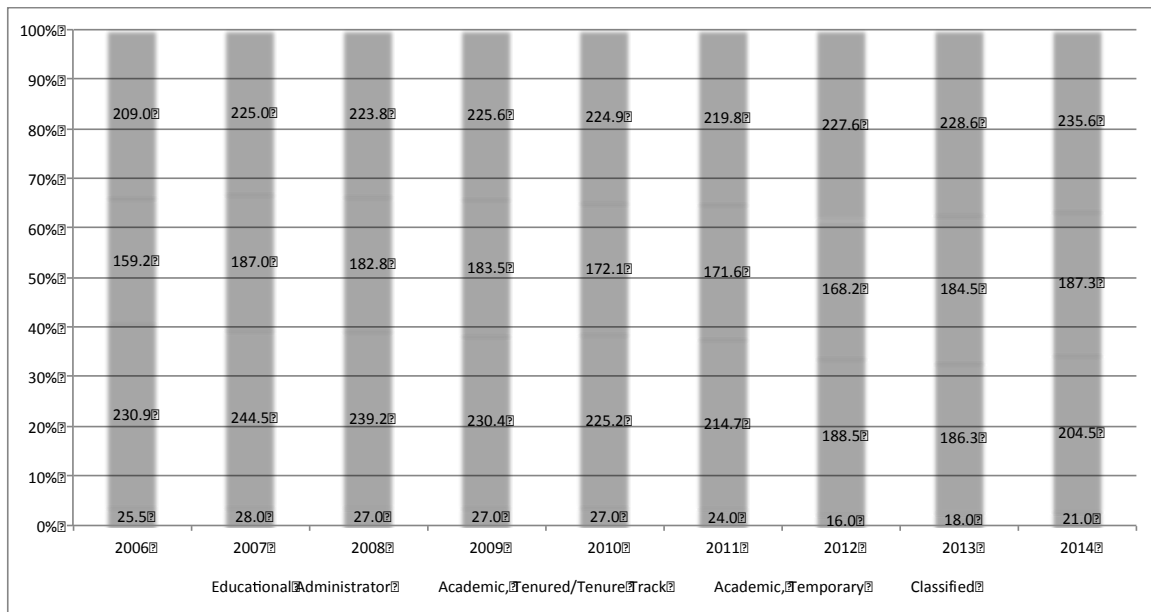
Chart 22: Employee Headcounts, Fall 2006 to Fall 2014



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

Since 2006, all categories of the full-time workforce combined, expressed in units of full-time equivalency (FTE), at AVC has declined by 3.8% (624.6 in 2006, 648.4 in 2014). The FTE level of tenured faculty has declined 12.3% while administration has declined by 18.8% from fall 2006 to fall 2014. The full-time equivalent (FTE) number of classified personnel has increased by 12%. The temporary academic faculty members (adjunct faculty) have increased the most with a gain of 16.4%.

Chart 23: Antelope Valley College, Employee Groups by Full-time Equivalency



Source: California Community Colleges, Chancellor's Office, Annual Staff Data Report; analysis by Cambridge West Partnership, LLC

A second view of the employee headcounts, grouped by age ranges as of fall 2014, reveals that 24% of the educational administrators had reached the typical retirement age range, age 60 to 64. There were three educational administrators working beyond the typical retirement age range, age 65 to 70+.

In contrast, 15% of the tenured faculty members were within the typical retirement age range, and an additional 14% were working beyond the typical retirement age range. Over the next six years, an additional 19% of the full-time faculty (tenure track and tenured) will reach the typical retirement age.

The largest age group for classified staff was the 50 to 54 years age range at 18%. Unlike administrators and full-time faculty, only 10% of the classified employees fell into the normal retirement age range, and another 8% were working beyond the normal age for retirement. From 2015-16 to 2020-21, 17% of the classified staff will reach normal retirement age.

Table 27: Employee Groups by Age Ranges, Fall 2014

|                                 | Total      |          |          |          |          |          |          |          |          |       |
|---------------------------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| Employee Category               | Headcount  | 18 to 34 | 35 to 39 | 40 to 44 | 45 to 49 | 50 to 54 | 55 to 59 | 60 to 64 | 65 to 69 | 70 +  |
| Academic, Temporary             | 400        | 11.43%   | 10.00%   | 9.29%    | 10.71%   | 12.62%   | 15.00%   | 13.10%   | 10.00%   | 7.86% |
| Academic, Tenured/Tenure Track  | 215        | 3.47%    | 6.94%    | 10.98%   | 12.72%   | 17.34%   | 19.08%   | 15.03%   | 8.67%    | 5.78% |
| Classified                      | 212        | 11.67%   | 13.75%   | 10.42%   | 12.08%   | 17.50%   | 16.67%   | 10.00%   | 7.08%    | 0.83% |
| Educational Administrator       | 27         | 0.00%    | 9.52%    | 4.76%    | 4.76%    | 19.05%   | 28.57%   | 23.81%   | 0.00%    | 9.52% |
| <b>Total Employee Headcount</b> | <b>854</b> |          |          |          |          |          |          |          |          |       |

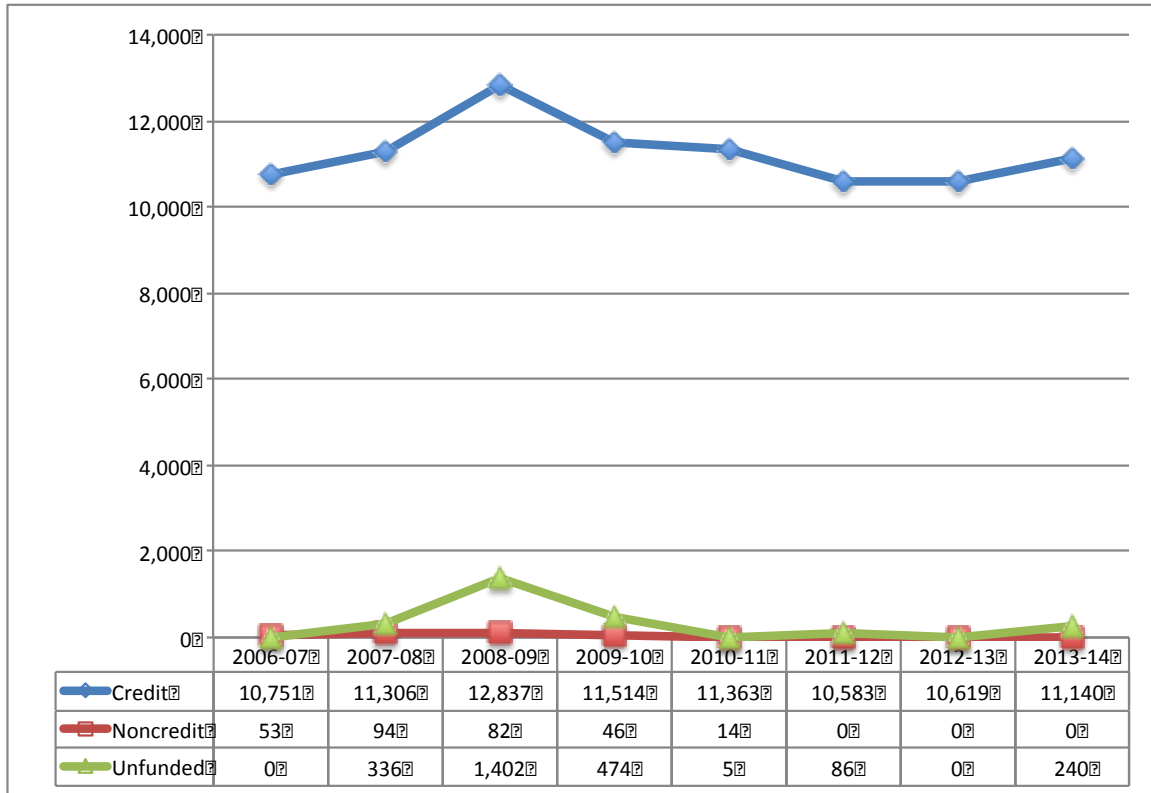
Source: California Community Colleges, Chancellor's Office, Data Mart; analysis by Cambridge West Partnership, LLC

Given that 31% of the temporary and 29% of the tenured academic faculty members (124 and 63 faculty members respectively) were of retirement age or working beyond that normal time, the College may need to consider decisions about replacement personnel.

### Budget

From 2006-07 to 2013-14, the annual FTES generated by the College increased by 3.1%. In six of these years the College had some unfunded FTES, the greatest amount came in 2008-09 (1,402 units). Starting in 2011-12 noncredit curriculum offerings were curtailed.

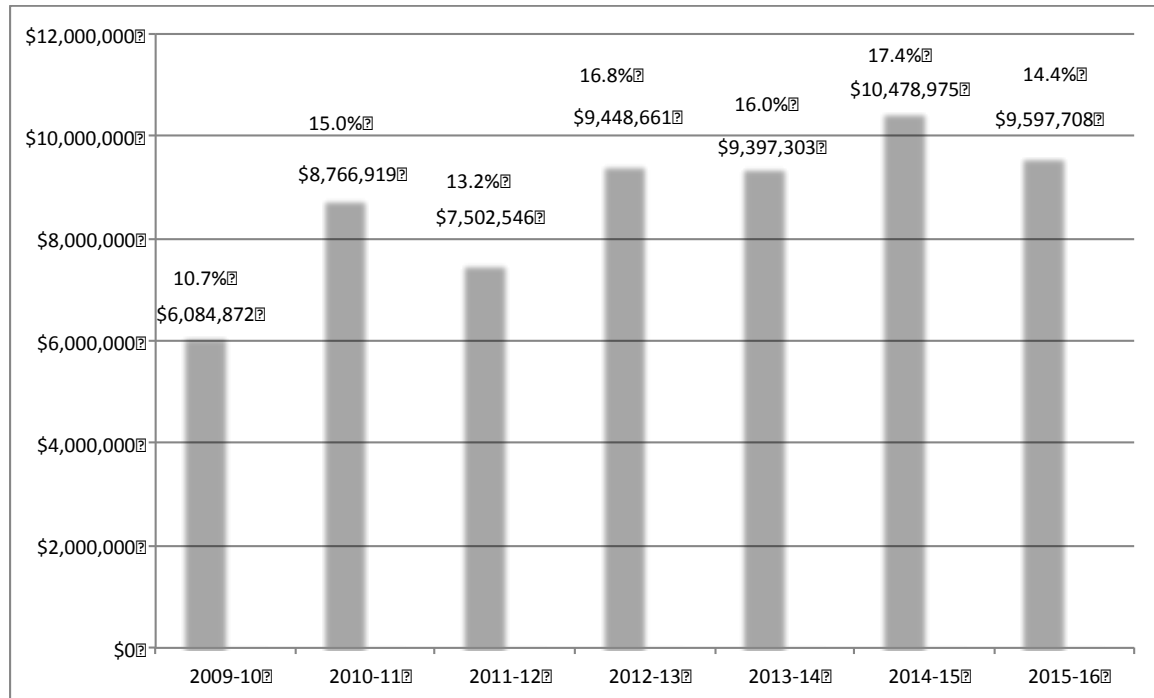
Chart 24: AVC Annual, Actual FTES Reported



Source: California Community Colleges, Chancellor's Office, Fiscal Services Unit. *Reports of Recalculated Apportionment*; analysis by Cambridge West Partnership, LLC

The College was able to retain a healthy ending balance from 2009-10 to 2014-15 as illustrated in the following chart. The 2015-16 values are an estimate.

Chart 25: Ending Balance Amounts and as a Percentage of Unrestricted Expenditures



Source: Antelope Valley College, Office of Business Services. *Adopted Budgets and Audited Financial Statements*; analysis by Cambridge West Partnership, LLC

The budget development process at Antelope Valley 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. The College had to retrench expenditures in response to workload and revenue reductions during the Great Recession. All discretionary accounts were reduced from campus operations and taken as permanent reductions to the campus budget. Budgets for travel and software were frozen. In addition, vacancies created through attrition and early retirement incentives were reviewed on a case-by-case basis with many of the positions being eliminated to help the College meet its revenue reduction targets. With so many unknowns at the State level, budget development for several years was extremely difficult. Restoration funds, starting with 2013-14 were allocated to areas such as travel, materials, etc. as revenues increased. Budget adjustments and augmentations at the department level were allowed to provide some flexibility within accounts.

In recent years the College strategically used redevelopment revenues of \$2 million plus to fund the implementation of the enterprise resource planning (ERP) system. For approximately five years, funds for scheduled maintenance and instructional equipment



were not available. In the last two years the College has started to receive significant funds for those purposes. Substantial support for categorical programs has begun to be restored and huge sums of funding have been provided for the new statewide Student Equity and the Student Success Support Program initiatives. Revenues for these purposes have grown by 86% from 2012-13 (\$4.6 million) to 2015-16 (\$8.6 million). Also, the College has successfully pursued a number of strategic grant funding opportunities. Those revenues have grown by 25% from 2012-13 (\$4.7 million) to 2015-16 (\$5.9 million).

To link the budget to strategic planning the Superintendent/President solicited input from community leaders on the current and future workforce development needs of industry. The information was evaluated and incorporated into the Educational Master Plan (EMP) and used to assist in the development of annual Board goals. The EMP goals were prioritized and reviewed in a campus-wide planning retreat.

The College has developed each annual budget by involving the campus community and the Budget and Finance Subcommittee (now Budget Committee) in a discussion of the draft tentative and adopted budgets. As part of a continuous process improvement cycle the Committee responded to three questions: (1) What did we like about the process? (2) What do we think we can do better? And, (3) What changes should be made? The rubric process was identified as challenging when applied to units supporting the operational needs of the College. Starting in with the 2015-16 budget, the rubric scoring was modified to address the prioritized goals of the EMP. Also, operational goals were developed to parallel those of the EMP.

In the 2015-16 budget the College set aside \$5.6 million in unrestricted funds for resource allocation in these areas:

1. \$1,450,000 in ongoing funds for classified and CMS staffing.
2. \$545,000 in one-time funds
3. \$1,162,571 for ongoing negotiations
4. \$447,439 for one-time negotiations
5. \$1,236,222 for faculty hiring
6. \$819,497 in step/column, STRS, and PERS increases

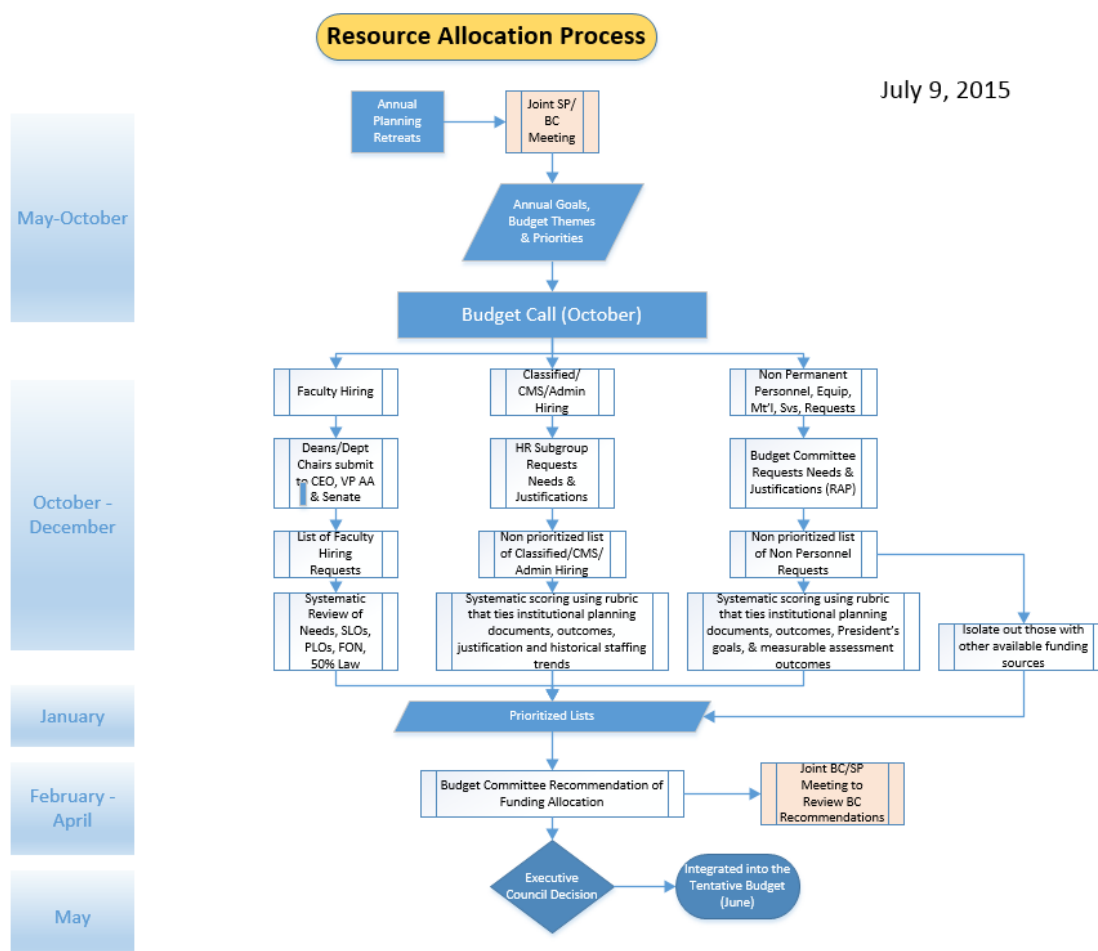
In the summer of 2015 the College issued a lease revenue bond of \$13 million to allow for expanded operations at the new Palmdale Center and Fox Field site renovations. Within that bond issuance was a \$1 million projection system for the Health and Sciences virtual sciences laboratory.

The Board of Trustees must address these fiscal facts in the coming years. Income from Proposition 30 will disappear at the end of calendar 2017, unless the underlying sales and income taxes are renewed by a popular vote. Starting in January 2018 the Affordable Care Act provides financial penalties for “Cadillac” medical benefit plans. Those penalties might one day impact the College. The State’s allocations to the districts for FY2015-2016 were unusually generous and were based upon unexpected State revenue growth. The magnitude of growth in State revenue may not be repeated in future years

and the unusual level of funding through “one time” money and categorical program dollars may not be repeated. Starting in July 2014 the District’s contribution to CalSTRS for each covered employee started to increase from 8.25% to 8.88%. The contribution percentage is scheduled to increase to 19.1% by 2020 and remain at that level until 2046-47.<sup>26</sup> The CalPERS retirement contributions for classified employees will increase from 12.46% in 2014 to 20.4% by 2020-21.<sup>27</sup>

The College resource allocation process is portrayed in the following graphic.

Chart 26: AVC, Resource Allocation Process



A resource request is not eligible for consideration unless the unit making the request has a current program review or annual update in place. Requestors must characterize the nature of the request as operational or academic, distinguishing things that must function in order for the college to operate (operational) from requests associated with a program

<sup>26</sup> Provisions of AB 1469. Retrieved April 30, 2016 from [www.calstrs.com/calstrs-2014-funding-plan](http://www.calstrs.com/calstrs-2014-funding-plan)

<sup>27</sup> Michael Youril. *Rate Hike Ahead: CalPERS Proposed Strategy Means Contribution Rates Will Continue to Rise for the Foreseeable Future.* Retrieved May 2, 2016 from [www.calpublicagencylaboremploymentblog.com](http://www.calpublicagencylaboremploymentblog.com)

or direct instruction of students (academic, non-operational). Additional approvals required in the request relate to marketing, fiscal systems, audiovisual equipment or information technology equipment, or facility alternation, repair and vehicles. Administrators must assign a priority rank to the requests from their area.

### Technology

The College is in the process of completing its implementation of the Ellucian (formerly Sun Guard) Banner Enterprise Resource Planning (ERP) suite. The Technology Master Plan 2014-2017 is reviewed and revised annually to provide a framework for the strategic implementation of technology in support of both operational and instructional needs. The Great Recession and multiple changes in the leadership of the Information Technology Services Department left many instructional programs and office units with outdated equipment. Investments made with Measure R funds (new data center and fiber infrastructure throughout the campus) did not reach to the end points of servers, routers, and end-user equipment. The following strategic initiatives were crafted to address Goals and Objectives in the Educational Master Plan, the Board of Trustee's Initiatives, and the President's Goals.

1. Complete the implementation of the Ellucian ERP. The remaining portions of the ERP to be implemented include: Human Resources, Purchasing, A/P & A/R, Asset Management, and a more robust reporting suite with Argos.
2. Implement a disaster recovery and business resumption plan based upon relevant components of the ISO 27001 framework as recommended by the California Community College Information Security Center.
3. Implement technology to enhance student and public safety such as replacing the existing mass notification equipment and software, installing video surveillance capabilities and an on-campus audible warning system, and emergency response procedures.
4. Upgrade and enhance the audio-visual and digital streaming instructional resources in classrooms using consistent standards for hardware, configuration and management software suites. The new Palmdale Center's audio-visual standards will serve as a model for this effort.
5. Decouple hardware from applications and technology to enable more agile delivery of services. Virtualize applications and desktops by moving computing activity to servers so that one image of an application or desktop is rendered and shared among multiple users and terminals.
6. Initiate a comprehensive study and assessment of learning management systems.
7. Re-implement a degree audit and planning tool to automate many manual processes in advisement and student assistance that are now expected in State policy and regulations.
8. Deploy integrated digital signage service to promote campus-wide events and leverage a campus alert system for emergency notifications.
9. Implement an identity management technology to identify individuals in the college's information systems and control access to resources in that system.

## VI. Key Planning Assumptions and Goals

### A. Key Planning Assumptions

The following are the key assumptions to guide future planning activity.

1. National and state goals and policy for postsecondary education will increasingly emphasize:
  - a. degree and certificate completion;
  - b. transfer to four-year universities;
  - c. reduction of achievement gaps among various subgroups of students; and,
  - d. containment of institutional costs.

To promote more effective community colleges some have argued that the institutions should be redesigned.<sup>28</sup> The College may want to explore those arguments and consider some of the policies and practices that the Aspen Institute has identified among the colleges to which it has awarded its \$1 million dollar prize for excellence.<sup>29</sup>

2. Whether ACCJC remains or some other entity becomes the accrediting body for the College, an accreditor will likely continue to insist upon adequate capacity to provide educational services and demonstrable commitment to continuous quality improvement. In regard to effectiveness an accreditor will place emphasis on results of both student achievement and learning outcomes.
3. The funding needs for capital projects throughout the California community college system are greater than what the State presently provides. Currently, key public policy makers are reluctant to ask the public to consider additional general bond obligation debt for those purposes. However, were State capital construction bond funds made available, preference in allocation most likely would be given to colleges demonstrating good use of their facilities and growing in face-to-face instructional contact. Therefore, the College must strive for more efficient use of existing facilities.
4. A significant change in public policy regarding the CSU transfer process has been implemented with the SB 1440/440 legislation. The UC has started a similar transfer pathway framework. The College has aggressively responded to those public policy changes. The ongoing challenge will be to connect students to those pathways and both strengthen and reinforce the College's image for transfer preparation.

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<sup>28</sup> Bailey, Thomas, et. al. *Redesigning America's Community Colleges: A Clearer Path to Student Success*. Harvard University Press, 2015. American Association of Community Colleges. *Reclaiming the American Dream: Community Colleges and the Nation's Future*. 2012. See also. Completion by Design at <http://www.completionbydesign.org/>

<sup>29</sup> Wyner, Joshua. *What Excellent Community Colleges Do: Preparing All Students for Success*. Harvard Education Press, 2014

5. The recommendations made by the Board of Governor's Task Force on Workforce, Job Creation, and a Strong Economy may translate into a series of new policy, program, and funding initiatives for career and technical education.<sup>30</sup>
6. The current and future planning environment is very fluid (e.g., resources and legislative mandates). The state of California, and by extension the community college system, has a set of revenue generation laws, policies and practices that result in volatile levels of revenue. During the Great Recession the revenue reductions were unprecedented in both the steepness of the decline and in the number of consecutive years in which they were sustained. Elements of performance based funding are working their way into categorical program and workforce development program funding. The College will need to be nimble and collaborative by engaging in interdepartmental dialogue on the campus. Additionally, the College will need to continue to be fiscally prudent and to use revenues efficiently.
7. Technology can be a disruptive factor both in the broader society and in higher education. It represents an evolving challenge to faculty members who need to teach some students how to use it while offering instruction in the same class to some students who may be very skilled in using the technology.<sup>31</sup> A variety of technological applications for the classroom and instruction are promising, but faculty must learn to use them and the effectiveness of the technology needs to be empirically evaluated.<sup>32</sup> The current State-sponsored Online Education Initiative holds great promise for the improvement of the online instruction experience for learners and faculty members. Technology is also a force with which to be reckoned in the delivery of administrative and instructional support services.<sup>33</sup>
8. Transferable core abilities, commonly expressed in the learning outcomes associated with general education, will likely never go out of fashion and are highly valued by employers.<sup>34</sup> However, weaving a coherent curriculum that effectively fosters those talents is an ongoing challenge for any higher education institution.
9. Change in late adolescent and adult demographics (racial composition, ethnic identities, age cohorts) is the future of the effective service area. Although the primary college age cohort (18 to 24) will become proportionately smaller, the group's size will continue to be a substantial. The College will always have to

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<sup>30</sup> California Community College Chancellor's Office. *Board of Governors Task Force on Workforce, Job Creation, and a Strong Economy: Report and Recommendations*. November 2015

<sup>31</sup> Carl Straumsheim. "Digital Distractions," *Inside Higher Education*. January 26, 2016

<sup>32</sup> see, for example, <https://www.timeshighereducation.com/news/augmented-reality-in-higher-education-five-tips-to-get-started/2018933>.article

<sup>33</sup> Ryland, Jane N. (President Emerita, CAUSE). *Technology and the Future of the Community College*. Retrieved from [www.aacc.nche.edu/Resources/aaccprograms/past](http://www.aacc.nche.edu/Resources/aaccprograms/past) projects on January 15, 2016.

<sup>34</sup> Hart Research Associates. *Falling Short? College Learning and Career Success*. January 2015 (survey conducted on behalf of the Association of American Colleges and Universities)

“sell itself” to the community of prospective students. The entire state system perceives a similar challenge.<sup>35</sup>

10. Substantial numbers of residents are limited in their ability effectively to participate in the local economy due to shortcomings in their academic capital (English language learners and low educational attainment) and poverty. Many are concentrated in a limited number of zip codes. The decision and resources required for outreach to recruit these adults and/or their college-age children will be an ongoing opportunity for the College as well as a challenge to “make room” for them and to help them succeed.
11. The implementation of the common core curriculum in K-12 districts may favorably impact the extent to which future students are “college-ready” upon graduation from high school. Currently, substantial portions of those high school graduates who complete the placement assessment exams are recommended to basic skills courses. What brings about these results? Is it the students, the assessment process, poor instruction, or a little of all?<sup>36</sup> The College may want to revisit the issue of “college ready,” consider strategies to improve the academic talent of prospective students, and explore additional approaches to the process of course placement assessment.
12. An important public service and ongoing challenge for the College will be to align instructional programs to the occupations with the greatest job opportunities, some of which will require a Bachelor’s Degree while others will not.<sup>37</sup> Considerable commitment and a willingness to change with the times will be required to design terminal Associate Degrees and Certificates of Achievement that culminate in an industry-recognized certification or adequate preparation of students for the examinations to earn those licenses and certifications.
  - a. Eighty-seven percent of all projected nonfarm job growth opportunities (2012-2022) in Los Angeles County is concentrated in four **industry sectors**:
    - i. The private educational services, health care and social assistance industry is the fastest growing sector (35% of all new jobs);
    - ii. The professional and business services sector represent 19% of all new jobs;
    - iii. Trade, Transportation, Utilities as an industry will provide 18% of all new jobs; and
    - iv. Leisure and hospitality will contribute 15% of all new jobs.
  - b. Sixty-six percent of all projected nonfarm job growth opportunities (2012-2022) in Ventura County is concentrated in four **industry sectors**:

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<sup>35</sup> California Community Colleges. Chancellor’s Office. *System Strategic Plan*. 2013

<sup>36</sup> Hanover Research. *Planning for the Future in Community Colleges*. December 2013

<sup>37</sup> American College Testing. *Changing Lives, Building a Workforce*. 2015; Public Policy Institute of California. *California’s Future: Higher Education*. 2016; California Community Colleges. Chancellor’s Office. *System Strategic Plan*. 2013; California Community Colleges. Chancellor’s Office. *Board of Governors Task Force on Workforce, Job Creating, and a Strong Economy*. 2015;

- i. Private education, health care, and social assistance (17% of all new jobs);
    - ii. The professional and business services industry will create 15% of new jobs;
    - iii. Trade, Transportation, Utilities will generate 19% of new jobs; and
    - iv. Leisure and hospitality as a sector also will provide 15% of new jobs.
  - c. Fifty-nine percent of all projected nonfarm job growth opportunities (2012-2022) in Kern County is concentrated in four **industry sectors** and 16% of the new jobs are expected in the **farming industry**:
    - i. Private education, health care, and social assistance (19% of all new jobs);
    - ii. The professional and business services industry will create 14% of new jobs;
    - iii. Trade, Transportation, Utilities will generate 16% of new jobs; and
    - iv. Leisure and hospitality as a sector also will provide 10% of new jobs; and
    - v. Farm jobs represent 16% of new jobs.
13. The ability to measure and track data is necessary for identifying trends in student outcomes achievement. Robust data sets provide faculty and staff with timely feedback and information about student outcomes. Exploration of robust data sets allows them to alter or enhance instructional programs and support services. Some have called this process a “culture of evidence.” It can be a challenge to know how to use this information well. That is to say, it is not enough to collect data, but the College must know how to analyze and use the data to make “informed decisions in the classroom, in student services, and in human resources.”<sup>38</sup> The College may want to consider exploring the Baldrige Excellence Framework (Education) as a way to focus on improvement and coordination all the components of the institution as a unified whole so that plans, processes, measures, and actions are consistent.<sup>39</sup>

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<sup>38</sup> Lorenzo, George (editor-in-chief of the SOURCE on Community College Issues, Trends, and Strategies). *Eight Important Questions for Eleven Community College Leaders: An Exploration of Community College Issues, Trends, and Strategies*. May 2011

<sup>39</sup> About the Baldrige Excellence Framework (Education), retrieved from [http://www.nist.gov/baldrige/publications/ed\\_about.cfm](http://www.nist.gov/baldrige/publications/ed_about.cfm). See also, U.S. Secretary of Commerce Penny Pritzker Announces Four Recipients of 2015 Baldrige Award, retrieved from <https://www.commerce.gov/news/press-releases/2015/11/us-secretary-commerce-penny-pritzker-announces-four-recipients-2015>

## B. Goals of the Educational Master Plan

The Strategic Planning Committee created six workgroups in the spring 2016 to consider goals for the institution over the next several years. Their development work for the goals was not limited to the instructional and/or student services programs of the College. Each goal has a series of subgoals. The SPC elaborated each subgoal by identifying a responsible office, completion dates, resources needed, and measures of success. Collectively, these elements form a three-year strategic plan for 2016-19.

The following list of goals is provided as a high-level overview of that planning work.

Goal 1: Commitment to strengthen Institutional Effectiveness measures and practices.

Goal 2. Increase efficient and effective use of all resources.

2.1 Technology

2.2 Facilities

2.3 Human Resources

2.4 Business Services

Goal 3. Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.

Goal 4. Advance more students to college-level coursework.

4.1 Develop and implement effective placement tools

Goal 5. Align instructional programs to the skills identified by the labor market.



## VII. Opportunities for the Future

### A. Future Labor Markets

Within the AVC Three-County Region (Kern, Ventura, Los Angeles) roughly 179,000 annual job openings are projected between 2012-2022 due to retirements and new jobs created through growth in the economy. As is commonly the case, most of the openings require a high school diploma or less education for entry, but 21% of the anticipated occupational openings require a bachelor's degree or higher for entry.

Occupations with the *most* job openings are forecasted to generate more than 101,000 jobs annually, roughly 57% of all job openings. The top three occupations with the most openings are: (1) personal care aides; (2) retail salespersons; and (3) combined food preparation and serving workers, including fast food. However the median wage for these jobs ranges from \$9 to \$12 per hour.

Table 28: AVC Regional Projected Annual Job Openings 2012-2022

| Average Annual Job Openings Total      |               |                |               |                |            |            |
|----------------------------------------|---------------|----------------|---------------|----------------|------------|------------|
| Entry Level Education                  | Kern          | Los Angeles    | Ventura       | Total          | % of Total | % of Total |
| Less Than high School                  | 5,672         | 57,849         | 5,089         | 68,610         | 38.4%      | 70.1%      |
| High School Diploma or Equivalent      | 3,802         | 48,610         | 4,244         | 56,656         | 31.7%      |            |
| <i>Subtotal</i>                        |               |                |               |                |            |            |
| <i>Some College, No Degree</i>         | 157           | 1,720          | 166           | 2,043          | 1.1%       | 9.4%       |
| <i>Postsecondary Certificate</i>       | 679           | 7,525          | 526           | 8,730          | 4.9%       |            |
| <i>Associate's Degree</i>              | 370           | 5,297          | 345           | 6,012          | 3.4%       |            |
| <i>Subtotal</i>                        |               |                |               |                |            |            |
| <i>Bachelor's Degree</i>               | 1,416         | 26,841         | 1,867         | 30,124         | 16.9%      | 20.5%      |
| <i>Master's Degree</i>                 | 158           | 2,343          | 148           | 2,649          | 1.5%       |            |
| <i>Doctoral or Professional Degree</i> | 158           | 3,500          | 176           | 3,834          | 2.1%       |            |
| <i>Subtotal</i>                        |               |                |               |                |            |            |
| <b>Totals</b>                          | <b>12,412</b> | <b>153,685</b> | <b>12,561</b> | <b>178,658</b> |            |            |

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

In an effort to identify new program areas that would meet labor market needs in the AVC Three-County Region, an analysis was completed of the occupations expected to provide 50 or more job openings annually through 2022. The list was subdivided using the Bureau of Labor Statistics' training-level definitions with a focus on those occupations requiring between a high school diploma and a bachelor's degree. The most promising occupations are those with the highest number of projected annual average total jobs. The tables were sorted in descending order on that data column and are located in the Appendix E of this Plan.

Using the Standard Occupational Classification (SOC) codes and Taxonomy of Programs (TOP) codes, the occupations that meet the criteria were mapped to Associate Degree and Certificate of Achievement programs offered by the nine area colleges (Antelope Valley, Bakersfield, Cerro Coso, College of the Canyons, Los Angeles Mission, Taft, Victor Valley, Moorpark, Oxnard, and Ventura). The *average* number of awards granted by these nine colleges for each TOP code that matched an occupation was provided for comparison to the *average annual* EDD estimate of job openings in those occupations. Each table also contains a column to indicate if Antelope Valley College has an established program of study that is aligned to the occupation.

Because some of the occupations map to one or more TOP codes used by the community college system, there can be multiple programs using different TOP codes offered for each occupation. For that reason, some of the occupations have more than one row in the tables. Details regarding the requisite knowledge, skills, and abilities for each occupation can be found at the U.S. Bureau of Labor Statistics website <https://www.onetonline.org>.

By way of summary, for the detailed tables included in Appendix E the following tables provide a quick overview of the projected job openings grouped first by expected preparation then by major occupational groups. Middle-skills occupations are defined as those that require more than a high school diploma but less than a bachelor's degree as preparation for entry-level positions. In the AVC Three-County Region, EDD projects 16,700 new job openings as the average annual count of these occupations.<sup>40</sup>

Table 29: Projected Job Openings

| Major Occupational Group Description                       | Entry Level Education | 2012-2022 Annual Average Openings |               |              |               |
|------------------------------------------------------------|-----------------------|-----------------------------------|---------------|--------------|---------------|
|                                                            |                       | Kern                              | Los Angeles   | Ventura      | Total         |
| Management Occupations                                     | BA                    | 310                               | 5,914         | 466          | 6,690         |
| Business & Financial Operations Occupations                | BA                    | 269                               | 6,591         | 484          | 7,344         |
| Computer and Mathematical Occupations                      | BA                    | 78                                | 2,361         | 142          | 2,581         |
| Architecture and Engineering Occupations                   | BA                    | 159                               | 1,594         | 154          | 1,907         |
| Life, Physical, and Social Science Occupations             | BA                    | 30                                | 537           | 44           | 611           |
| Community and Social Service Occupations                   | BA                    | 86                                | 892           | 55           | 1,033         |
| Education, Training, and Library Occupations               | BA                    | 351                               | 3,436         | 276          | 4,063         |
| Arts, Design, Entertainment, Sports, and Media Occupations | BA                    | 50                                | 3,815         | 117          | 3,982         |
| Healthcare Practitioners and Technical Occupations         | BA                    | 25                                | 474           | 10           | 509           |
| Personal Care and Service Occupations                      | BA                    | 25                                | 234           | 39           | 298           |
| Sales and Related Occupations                              | BA                    | 28                                | 808           | 78           | 914           |
| Office and Administrative Support Occupations              | BA                    |                                   | 21            | 2            | 23            |
| Farming, Fishing, and Forestry Occupations                 | BA                    | 5                                 | 11            |              | 16            |
| Transportation and Material Moving Occupations             | BA                    |                                   | 153           |              | 153           |
|                                                            | <b>Total</b>          | <b>1,416</b>                      | <b>26,841</b> | <b>1,867</b> | <b>30,124</b> |

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

<sup>40</sup> California Employment Development Department. *Labor Market Information, Occupational Projections for Kern, Los Angeles, and Ventura Counties*. Retrieved November 3, 2015 from <http://www.labormarketinfo.edd.ca.gov>

Table 29: Projected Job Openings (continued)

| Major Occupational Group Description                       | Entry Level Education | 2012-2022 Annual Average Openings |              |            |              |
|------------------------------------------------------------|-----------------------|-----------------------------------|--------------|------------|--------------|
|                                                            |                       | Kern                              | Los Angeles  | Ventura    | Total        |
| Management Occupations                                     | AA                    |                                   | 4            |            | 4            |
| Computer and Mathematical Occupations                      | AA                    | 9                                 | 328          | 16         | 353          |
| Architecture and Engineering Occupations                   | AA                    | 45                                | 344          | 35         | 424          |
| Life, Physical, and Social Science Occupations             | AA                    | 42                                | 249          | 33         | 324          |
| Legal Occupations                                          | AA                    | 13                                | 283          | 21         | 317          |
| Education, Training, and Library Occupations               | AA                    | 48                                | 517          | 42         | 607          |
| Arts, Design, Entertainment, Sports, and Media Occupations | AA                    | 1                                 | 58           |            | 59           |
| Healthcare Practitioners and Technical Occupations         | AA                    | 205                               | 3,307        | 192        | 3,704        |
| Healthcare Support Occupations                             | AA                    |                                   | 72           | 6          | 78           |
| Personal Care and Service Occupations                      | AA                    |                                   | 13           |            | 13           |
| Sales and Related Occupations                              | AA                    |                                   | 6            |            | 6            |
| Installation, Maintenance, and Repair Occupations          | AA                    | 2                                 | 63           |            | 65           |
| Production Occupations                                     | AA                    |                                   | 20           |            | 20           |
| Transportation and Material Moving Occupations             | AA                    | 5                                 | 33           |            | 38           |
|                                                            | <b>Total</b>          | <b>370</b>                        | <b>5,297</b> | <b>345</b> | <b>6,012</b> |

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

Table 29: Projected Job Openings (continued)

| Major Occupational Group Description                       | Entry Level Education | 2012-2022 Annual Average Openings |              |            |              |
|------------------------------------------------------------|-----------------------|-----------------------------------|--------------|------------|--------------|
|                                                            |                       | Kern                              | Los Angeles  | Ventura    | Total        |
| Business & Financial Operations Occupations                | Certificate           |                                   | 6            |            | 6            |
| Legal Occupations                                          | Certificate           |                                   | 26           |            | 26           |
| Education, Training, and Library Occupations               | Certificate           | 13                                | 127          | 15         | 155          |
| Arts, Design, Entertainment, Sports, and Media Occupations | Certificate           | 4                                 | 223          |            | 227          |
| Healthcare Practitioners and Technical Occupations         | Certificate           | 92                                | 1,557        | 76         | 1,725        |
| Healthcare Support Occupations                             | Certificate           | 233                               | 2,712        | 224        | 3,169        |
| Protective Service Occupations                             | Certificate           | 30                                | 264          | 15         | 309          |
| Personal Care and Service Occupations                      | Certificate           | 19                                | 793          | 51         | 863          |
| Installation, Maintenance, and Repair Occupations          | Certificate           | 82                                | 757          | 62         | 901          |
| Production Occupations                                     | Certificate           | 27                                | 249          | 26         | 302          |
| Transportation and Material Moving Occupations             | Certificate           | 179                               | 811          | 57         | 1,047        |
|                                                            | <b>Total</b>          | <b>679</b>                        | <b>7,525</b> | <b>526</b> | <b>8,730</b> |

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

Table 29: Projected Job Openings (continued)

| Major Occupational Group Description              | Entry Level Education | 2012-2022 Annual Average Openings |              |            |              |
|---------------------------------------------------|-----------------------|-----------------------------------|--------------|------------|--------------|
|                                                   |                       | Kern                              | Los Angeles  | Ventura    | Total        |
| Computer and Mathematical Occupations             | Some College          | 23                                | 536          | 33         | 592          |
| Education, Training, and Library Occupations      | Some College          | 127                               | 1,126        | 120        | 1,373        |
| Installation, Maintenance, and Repair Occupations | Some College          | 7                                 | 58           | 13         | 78           |
|                                                   | <b>Total</b>          | <b>157</b>                        | <b>1,720</b> | <b>166</b> | <b>2,043</b> |

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

In October 2014 the Institutional Effectiveness, Research, and Planning Office of Antelope Valley College conducted an online survey of businesses that were on a contact list maintained by the Greater Antelope Valley Economic Alliance (GAVEA). Of the 23 businesses that responded many expected to hire more employees in 2015-16. The businesses surveyed indicated that most of the personnel they hire typically require an Associate Degree or less education to start work.

These firms indicated that the current employees had some training needs in some of these areas:

1. ESL;
2. Computer training such as excel and adobe illustrator;
3. Continuous training on new systems;
4. Ongoing safety and technical training;
5. Manufacturing technologies, particularly computer numeric control training; and,
6. Nursing, management, and clinical competence training.

The greatest training need appeared to be for nursing-related training. Nursing personnel and specialty-trained technicians were the positions with the biggest shortage of workers. Based on this survey, the greatest projected growth in employment opportunities is from the Palmdale Regional Medical Center.<sup>41</sup>

The College currently offers an array of instructional programs, some of which may address these expressed interests. The revival of community and contract education services may be of particular assistance to these employers.

An inventory of the instructional programs offered by AVC is found in Appendix C of this Plan along with a count of awards granted to students over the last five academic years. The inventory has been annotated by placing a Taxonomy of Program (TOP) code in **bold** if the code matched to one or more of the Standard Occupational Code (SOC) values in the list of occupations projected to provide 50 or more annual job openings between 2012 and 2022.<sup>42</sup> AVC offers 65 degree and 24 certificate programs that are a

<sup>41</sup> Meeta Goel and Svetlana Deplazes. 2014 *Antelope Valley Labor Market Study*. Greater Antelope Valley Economic Alliance.

<sup>42</sup> California Community College Chancellor's Office. *TOP to SOC to CIP Crosswalk*. Spring 2015.

direct match. The most popular fields of study at AVC are LAS: Social/Behavioral Sciences and LAS: Math and Sciences.

Some of the programs of study offered by Antelope Valley College are intended to facilitate transfer to a California State University (CSU) campus. The Legislature enacted and the Governor signed the Student Transfer Achievement Reform Act (SB 1440) in September 2010 in an effort to streamline transfer to the California public university system where most California community college students migrate. The act enables these two public systems to collaborate on the creation of Associate Degree transfer (AD-T) programs. Upon completion of the Associate Degree, the student is eligible for transfer with junior standing into the CSU system with guaranteed admission and priority consideration when applying to a particular program of study that is similar to the student's community college major.

#### The Most Popular California State University (CSU) Majors

The following table lists some of the most popular CSU majors. As of spring 2016 there are 36 transfer model curriculums (TMC) upon which the faculties of the community college and CSU systems have agreed as appropriate preparation to enter these major programs of study. Three of the thirty-six are uniquely appropriate for more rural community colleges with an agriculture curriculum. An updated, complete listing is available at this C-ID URL <https://c-id.net/degreereview.html>.

The extent of curriculum alignment between the programs of study at AVC and the most popular fields of study throughout the California State University (CSU) is noted in the following table.

Table 30: Associate Degrees for Transfer Established at Antelope Valley College

| TMC                                                 | TOP    | Antelope Valley College AD-T Scorecard |          |             |            |
|-----------------------------------------------------|--------|----------------------------------------|----------|-------------|------------|
|                                                     |        | Established                            | Due      | In Progress | Interested |
| Administration of Justice                           | 210500 | X                                      |          |             |            |
| Agriculture Plant Sciences                          | 010300 |                                        |          | IP          |            |
| Anthropology                                        | 220200 | X                                      |          |             |            |
| Art History                                         | 100100 | X                                      |          |             |            |
| Biology                                             | 040100 |                                        | X        |             |            |
| Business Administration                             | 050500 | X                                      |          |             |            |
| Chemistry                                           | 190500 |                                        |          | IP          |            |
| Communication Studies                               | 150600 | X                                      |          |             |            |
| Early Childhood Education (ECE)                     | 130500 | X                                      |          |             |            |
| Economics                                           | 220400 | X                                      |          |             |            |
| Elementary Education                                | 490120 |                                        |          |             | yes        |
| English                                             | 150100 | X                                      |          |             |            |
| Film, Television, Electronic Media                  | 060420 |                                        |          |             | yes        |
| Geography                                           | 220600 | X                                      |          |             |            |
| Geology                                             | 191400 | X                                      |          |             |            |
| Global Studies                                      | 221020 |                                        |          |             |            |
| History                                             | 220500 | X                                      |          |             |            |
| Kinesiology                                         | 127000 | X                                      |          |             |            |
| Mathematics                                         | 170100 | X                                      |          |             |            |
| Music                                               | 100400 | X                                      |          |             |            |
| Nutrition & Dietetics                               | 130600 |                                        |          | IP          |            |
| Philosophy                                          | 150900 | X                                      |          |             |            |
| Physics                                             | 190200 | X                                      |          |             |            |
| Political Science                                   | 220700 | X                                      |          |             |            |
| Psychology                                          | 200100 | X                                      |          |             |            |
| Public Health Science                               | 120100 |                                        |          |             | yes        |
| Sociology                                           | 220800 | X                                      |          |             |            |
| Spanish                                             | 110500 | X                                      |          |             |            |
| Studio Arts                                         | 100200 | X                                      |          |             |            |
| Theater                                             | 100700 | X                                      |          |             |            |
| <b>Total</b>                                        |        | <b>22</b>                              | <b>1</b> | <b>3</b>    | <b>3</b>   |
| IP= faculty actively working on the degree proposal |        |                                        |          |             |            |

Source: California Community College Chancellor's Office, Academic Affairs Division. *SB 1440 Legislation Update*. March 31, 2016; interviews and analysis by Cambridge West Partnership, LLC

### The Most Popular University of California (UC) Majors

In summer 2015 the University of California announced a new academic roadmap for California community college students who planned to transfer to a UC campus. It is intended to simplify the admissions process and help students better prepare for transfer to the university and to graduate within two years of admission. Although the pathways

curricular directions are not a guarantee of admission, they are intended to help the university achieve its goal of a 2:1 ratio of freshmen to transfer students. The extent of curriculum alignment between the programs of study at AVC and the most popular fields of study throughout the University of California (UC) is noted below.

Table 31: Most Popular UC Majors and Associate Degrees for Transfer Established at Antelope Valley College

| TMC                                                 | UC Transfer            | Antelope Valley College AD-T Scorecard |          |             |            |
|-----------------------------------------------------|------------------------|----------------------------------------|----------|-------------|------------|
|                                                     | Pathway                | Established                            | Due      | In Progress | Interested |
| Anthropology                                        | X                      | X                                      |          |             |            |
| Biology                                             | X                      |                                        | X        |             |            |
|                                                     | Biochemistry           |                                        |          |             |            |
| Business Administration                             | X                      | X                                      |          |             |            |
|                                                     | Cell Biology           |                                        |          |             |            |
| Chemistry                                           | X                      |                                        |          | IP          |            |
| Communication Studies                               | X                      | X                                      |          |             |            |
| Computer Science                                    | X                      |                                        |          |             |            |
| Economics                                           | X                      | X                                      |          |             |            |
|                                                     | Electrical Engineering |                                        |          |             |            |
| English                                             | X                      | X                                      |          |             |            |
| Film, Television, Electronic Media                  | X                      |                                        |          |             | yes        |
| History                                             | X                      | X                                      |          |             |            |
| Mathematics                                         | X                      | X                                      |          |             |            |
|                                                     | Mechanical Engineering |                                        |          |             |            |
|                                                     | Molecular Biology      |                                        |          |             |            |
| Philosophy                                          | X                      | X                                      |          |             |            |
| Physics                                             | X                      | X                                      |          |             |            |
| Political Science                                   | X                      | X                                      |          |             |            |
| Psychology                                          | X                      | X                                      |          |             |            |
| Sociology                                           | X                      | X                                      |          |             |            |
| <b>Total</b>                                        | <b>21</b>              | <b>12</b>                              | <b>1</b> | <b>1</b>    | <b>1</b>   |
| IP= faculty actively working on the degree proposal |                        |                                        |          |             |            |

Source: Retrieved April 29, 2016 from [Admission.universityofcalifornia.edu/transfer/preparation-paths/index.html](http://Admission.universityofcalifornia.edu/transfer/preparation-paths/index.html); California Community College Chancellor's Office, Academic Affairs Division. *SB 1440 Legislation Update*. March 31, 2016; interviews and analysis by Cambridge West Partnership, LLC

Aerospace and related support businesses as well as advanced manufacturing are key employment clusters in the Antelope Valley area. Several major employers informally have expressed intent to hire new employees along these lines:

- **Northrop Grumman and Lockheed-Martin** leadership believes they will need 300 to 500 mechanics in the next two years. Northrop Grumman was awarded the U.S. Air Force long-range strike bomber (LRS-B) contract valued at \$80 billion. Congressional arbiters have backed the contract award. The next challenge is to deliver on the contract obligations. They have been generous in providing equipment and supplies for the College's aerospace programs.
- **BYD Motor Factory** projected to have 400 jobs for building electric buses.

- **Air Force Plant 42**, located in Palmdale is synonymous with advanced and black aviation programs. Senior management there indicated that they will not see any reduction in their work and will need people.
- **Morton Manufacturing** indicated that it would need people. A small, minority, woman-owned business (founded 1967). It is the leading supplier of nickel-alloy bolts for gas-turbine aircraft engines as well as aero derivative gas-turbine engines for industrial use worldwide.
- **Kinkisharyo International** indicated that it expects to be hiring employees. Located in Palmdale, it is a light-rail car-manufacturing firm that builds for urban transit agencies worldwide. It is the number one supplier of low-floor, light-rail vehicles in North America
- **U.S. Pole Co. Inc.** indicated it would need people. It is an outdoor lighting company located in Palmdale and is the parent company to U.S. Architectural and Sun Valley Lighting firms.

The commonality that cuts across these companies is their desire to hire new employees with skills sets that could be adapted to any of their firms.<sup>43</sup>

## B. Planning Considerations for Potential New Programs

The College has a well-established curriculum review and approval process. A shared-governance Curriculum Committee provides oversight to the process that includes both a technical and a substantive review of new curriculum ideas. Faculty members and division instructional deans propose new courses and programs, that the Curriculum Committee and College administration critique, evaluate, set priorities, and recommend proposals to the Board of Trustees. The criteria used to evaluate the visions for future curriculum within the College are similar to those adopted by the Chancellor's Office as discussed below.

Given the current California higher education public policy environment, priority should be given to programs intended for transfer preparation that have been developed around the Transfer Model Curricula (TMC). Priority should be given to career and technical education programs that fall within the primary areas of emphasis agreed upon through regional discussions. The labor market data analysis provided in the initial segment of this chapter and the evolving list of TMCs developed around the most popular majors within the CSU system point to the primary areas for future program development that would serve students well.

The Chancellor's Office has a set of long-established criteria to use when evaluating new instructional program proposals. It encourages individual colleges and districts to use the same or similar criteria when evaluating a curriculum proposal. Those five criteria are as follows:

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<sup>43</sup> Edward Knudson, Superintendent-President Antelope Valley College. *Interview*. February 17, 2016; Community Advisory Committee. *Meeting Notes*. March 23, 2016.



**Appropriateness to the Mission**

The proposed program and required courses must be aimed at the first two years of postsecondary instruction. The curriculum has to be congruent with the mission of the California community colleges as described in Education Code section 66010.4 and with the mission statement and master plan of the college and district. The proposal must clearly articulate the content or skills whose mastery forms the basis of the student learning outcomes. The proposed program must also address an occupational or transfer area that is valid for the region and institution. The courses and program must not be primarily avocational or recreational. Non-instructional activities and services are not considered to be courses and are not supported by apportionment.

**Need**

New curriculum must reflect the engagement of an educational planning process resulting from systematic program review that includes assessment of future needs and goals of the educational programs of the institution. The proposed program application must document the transfer applicability as meeting lower division requirements for a major program of study at a baccalaureate institution.

The need for noncredit college preparation or career development curriculum is presumed to exist if there is a student demand for the program and either their transitions to credit work or its fulfillment of labor market needs has been documented.

Career and technical education (CTE) program proposals intended to prepare students for entry-level employment must provide evidence via labor market data or a recent employer survey that documents a need for the program and substantiates the opportunities for program graduates to secure future employment in the region. Statewide or national labor market evidence is considered as supplementary information. Industry or regional economic studies may be helpful validation. Letters from employers attesting to the need in the area and minutes of advisory committee meetings may be added for confirmation but only in conjunction with other collected evidence. Additional supporting documentation includes applicable studies or data from licensing agencies or professional associations and job advertisements for positions in the service area. The CTE program proposals must also secure the approval of the regional consortium of occupational deans so that duplication of programs is minimized. Additional suggested areas of discussion for labor market analysis are located in Appendix D of this Plan.

**Curriculum Standards**

The local curriculum committee, governing board, and program accreditor (when applicable) must apply the standards set forth in the Course and Program Approval Handbook and in the Title 5 Regulations. The college curriculum committee and the district governing board must approve all courses and new program proposals. The career and technical education regional consortia subsequently must review all CTE curriculum and new program proposals. The proposed program must also be consistent with requirements of any accrediting agencies where applicable.

The college must provide a description of the local approval process along with supporting documentation from advisory committees, local industry, and/or transfer institutions. The proposal process should ensure that the program is designed so that successful completion of the program requirements will enable students to meet the program goals and learning outcomes. Program-required courses should be integrated with courses designed to effectively meet the program goals and learning outcomes.

The Academic Senate for the California Community Colleges (ASCCC) provides useful additional information about best practices for curriculum development. Unless the web link has changed, curriculum resource materials are available as of fall 2015 at [www.asccc.org/directory/curriculum-committee](http://www.asccc.org/directory/curriculum-committee).

### **Adequacy of Resources**

The institution must demonstrate that it has the resources to realistically maintain the contemplated program at the level of quality described in the proposal. That includes funding for qualified faculty to teach the curriculum of the proposed program, sufficient and adequate facilities and equipment, and essential library and learning resources to support the instruction. The institution must also commit to offering the required courses in the program at least once every two years and have faculty available to sustain the proposed required courses. It is incumbent upon the proposing college to carefully ascertain the space/facilities needs for a new program using the State facilities space standards.

### **Compliance**

The design and proposed operation of the program may not be in any conflict with any licensing, state or federal law or regulation.

Although not required, the current thinking among occupational educators is that programs leading to industry-recognized certifications and programs designed with stackable certificates are highly desirable attributes of proposed CTE programs.

## **C. Faculty Vision for Curriculum, Potential Related Facilities Implications**

A listing of future curriculum visions articulated by faculty members in each division and the future delivery of administrative and student services was developed. The future visions were based upon responses to a questionnaire, interviews and listening sessions, open house events, and inspection of recent comprehensive program review documents. The ideas were divided into two groups: (1) those for which some curriculum work had been started, recently approved, or lately modified and (2) those for which the idea was still percolating with an undetermined action/implementation date. These visions helped to spot interests in potential additional facilities and to recognize aspects of the current facilities that were not working well for the programs and services. Faculty members, student services professionals, administrative support specialists, and deans were also asked to identify their future interests in technology. The lists and discussions below summarize those visions of a potential future.

In the listings below the following distinctions should be applied regarding instructional practices where distance education instruction is involved. Online courses are designed for all instruction to take place online with no requirement for students to meet on campus at any time during the term.

Hybrid courses are designed for all instruction to take place online. However, students will be required to meet on campus for orientation, exams, quizzes, or other non-instructional activities.

Blended courses are designed for instruction to take place both in the classroom and online. Students will be required to engage in both formats during the term.<sup>44</sup>

#### *Athletics, Kinesiology, Visual and Performing Arts Division Visions*

- Curriculum Started, Recently Approved or Modified
  - Kinesiology curriculum was restructured to promote transfer (less activity, more lecture and laboratory).
  - Several new local program certificates of achievement are being created in professional fitness, recreational leadership, coaching, aquatics, and yoga instruction. The intent is to better match courses offerings with the local community interests.
  - An AD-T in Theater Arts has been approved.
  - An Associate Degree in Theater is being developed to address non-transfer, local interests.
  - An Associate Degree in Dance is being developed and has had one review at the state level.
  - The music discipline has experimented with offering some online classes (world music and music appreciation).
  - The curriculum in commercial photography is being completely revised.
- Ideas Percolating, Undetermined Implementation Date
  - A Graphic Arts AD-T is being developed. The college faculty members in digital media arts are interested in that discipline as a potential transfer degree they could host.
  - The faculty members in the disciplines of film, television, and media are evaluating the possibility of the College implementing the AD-T in this discipline.

#### *Perceptions About Facilities*

- The current kinesiology facilities were built in the 1960s and faculty members believe they have never been modernized. Faculty members believe they cannot now be modernized. The following different and more modern facilities are envisioned to support the new kinesiology curriculum.
  - Coed training room
  - Locker facilities

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<sup>44</sup> Antelope Valley College, Academic Policies and Procedures Committee. *Distance Education Course Categories*. Approved April 2016.

- Swimming pool
- Strength and conditioning facility

Additionally, new facilities are needed to support the refocused kinesiology curriculum.

- Human performance lab
- Fitness center
- Another full-sized gymnasium
- The fine arts quad on campus includes some of the oldest buildings at AVC and they require major system renovations and upgrades. Some work has been accomplished, but much more needs to be done.
- The photography program instructional space has significant shortcomings.
- The FA4 building is used by several VAPA disciplines, but the rooms have serious shortcomings as instructional spaces.
- The faculty members in the music programs are interested in a new building and desire continued renovation of the current FA3 building.

#### *Perceptions About Technology*

- Many of the art, music, and theater teaching spaces have been using very outdated instructional technology. There is an interest in smart classroom technology.

#### *Behavioral and Social Sciences Division Visions*

- Curriculum Started, Recently Approved or Modified
  - None at this time
- Ideas Percolating, Undetermined Implementation Date
  - The division faculty members are considering offering more online or hybrid class sections. The latter only requires a student to attend an orientation and to be on campus for exams during the term.
  - There is some discussion about the Child and Family Education program curriculum that might be required for students who are interested in working in primary and secondary education settings. These students may be able to build upon their CFE degree. The AD-T in Elementary Education is a potential model.
  - Faculty members in the behavioral sciences are contemplating the development of a certificate in addiction studies.
  - Faculty leaders believe that the field of psychology is moving toward inclusion of more neural psychology, but additional courses in that specialty are not part of the state-approved transfer degree model.
  - The history faculty leaders are interested in additional courses that would give students a global perspective, e.g. Russian and/or Islamic history. However, the state-approved transfer degree model does not include those specialties.
  - Faculty members may be interested in exploring the viability of AD-Ts in Global Studies and Social Justice
  - The history and political science faculty members would like to see the Model UN program revived.

- There is some interest within the administration of justice faculty members to develop curriculum in cyber security, forensic anthropology, and photography to complement new program ideas being fostered in business, visual arts, anthropology, and life science areas.

#### *Perceptions About Facilities*

- The division leadership expressed a need for additional classrooms during impacted times. At times faculty willing to teach an extra large class find that large lecture rooms but many are sometimes used by a class with a normal size enrollment.
- Long-term visions include a separate division building and expansion of the Child and Family Education program facilities.

#### *Perceptions About Technology*

- Faculty members in the Division are interest in more blended/hybrid instruction and an institutional commitment to refresh instructional technology.

#### *Career and Technical Education Division- Business and Computer Information Systems Visions*

- Curriculum Started, Recently Approved or Modified
  - The Computer applications program curriculum is being reviewed to determine updated needs based upon:
    - CompTIA released a list of expanded competencies for A+ Certification including the following:
      - Windows 10 Introduced in 2015. Temporary support for Win 8.1 and 7 will soon end;
      - Apple Macintosh equipment and O/S support;
      - Linux operating system support;
      - mobile devices; and
      - computer & network security for the above items.
    - Updated Microsoft's support as follows:
      - classes to instruct Windows Server 2012 R2 that was released in 2012; and
      - the announced release of Windows Server 2016 by the third quarter of 2016.
  - The faculty members in the Computer Applications Department will be writing a grant application to participate in the Bay Area Netlabs+ consortium. They are also discussing virtualizations with textbook publishers as an option for some laboratories.
  - The Computer Applications Department faculty members are gathering curriculum and program examples for a cyber security certificate. They have perceived a potential need for additional computer literate employees at various growing industries/companies (Northrup-Grumman, BYD Auto, Space-X, medical and clean energy and water firms) in the Greater Antelope Valley. They have support from the Information Systems Audit and Control Association (ISACA) and possibly others such as CompTIA.

- The Computer Applications Department faculty members are encouraging students to acquire industry certifications as required by DOD Regulation 8579.1m.
- The Office Technology Department faculty members are conducting research to develop a medical billing and coding program. The Office Technology program advisors have indicated that there is a need for a focused program of this sort and for more graduates to have skills with Microsoft-based products.
- A Business Information Worker Certificate program, with heavy emphasis on skills with Microsoft-based products, is needed to meet current industry demands. The Office Technology Department faculty members are exploring ways to change the current Administrative Assistant Certificate into this new program.
- Engineering curriculum is being updated to meet C-ID standards and ensure that it is transferable to the California State University and University of California institutions, both of which are slowly adopting these standards. They are also each developing methods to decrease unit counts to be close to the 120-unit mark.
- The Clothing & Textiles-Fashion Design program curriculum has been overhauled to provide better clarity to objectives and easier access to classes.
- The Interior Design Department faculty members have proposed adding the computer-aided drafting course as a requirement in their program.
- Ideas Percolating, Undetermined Implementation Date
  - There is a potential to offer more business courses through distance education, particularly those for currently employed students.
  - Management program faculty members believe more entrepreneurially oriented courses need to be offered. They also think classes need to be offered in online and hybrid modalities as well as traditional methods.
  - The marketing curriculum faculty members are considering refocusing to modernizing the courses for current marketing trends by utilizing more technology and social media. Perhaps the focus should be on small businesses and utilization of the Internet. They also believe courses should be available online and in hybrid format.
  - The real estate curriculum needs to provide students with more computer laboratory experience in processing forms, etc. and more real world transaction experience, perhaps through a work experience course.
  - The Computer Information Systems (CIS) Department faculty members are anticipating a need to develop curriculum in mobile platform programming.
  - The Computer Applications Department personnel anticipate that more programming and programming languages, updated office suite applications, and networking curriculum will be needed along with instruction in cloud technology and virtualization.

- The Engineering Technology program will be reviewed to either better align with local industry or deleted if found to be obsolete. The local employers need prospective technical employees to work in mechanical or electrical engineering fields.
- Engineering faculty members expressed an interest in offering hybrid or online courses that are more convenient for working students. Research is being conducted at two California community colleges on these online or hybrid models to see how well they apply in engineering courses.
- The Clothing & Textiles-Fashion Design program faculty members are considering additional courses in wardrobe/costuming, computer illustration, and CAD principles. They believe the program needs clarification as a viable transfer option to CSU.

#### *Perceptions About Facilities*

- Additional sections of accounting will be offered to accommodate students in the Business Administration AD-T. More access to computer labs and software will be required.
- Other business area disciplines would benefit from smart classrooms with 35-40 computers. A laboratory/lecture combination room to accommodate at least 35 students would be helpful. Presently, there are too few of them.
- If mobile platform programming curriculum were to be introduced, the CIS discipline might need an additional computer lab to support that instruction.
- The Computer Applications Department faculty members have been involved in the plans for remodeling rooms where there are insufficient computer stations and the equipment is somewhat outdated.
- Enrollments in the engineering lab class need to be divided in half to fit the available laboratory space.
- Engineering faculty members are engaged in the planning phase for a complete remodel of a room to house engineering testing laboratories and other STEM courses.
- Drafting students would benefit from access to the course software in a computing environment that has open access as opposed to the two classrooms with fixed instructional time periods.

#### *Perceptions About Technology*

- There is a potential to increase the online offerings in office technology, if the Business Information Worker and Medical Billing and Coding certificates are created.
- Adaptive technology to assist students with visual and hearing impairments would be ideal in the Office Technology program.
- Engineering faculty members are considering hybrid or online course offerings for some of their curriculum.
- Updated computers will be needed in the drafting and engineering programs to handle 3D CAD-based modeling.
- Access to the Internet for web-based applications in the classroom is highly desired by the Interior Design Department faculty members.

### *Career and Technical Education Division- Nursing & Health Visions*

- Curriculum Started, Recently Approved or Modified
  - The registered nursing curriculum was extensively updated over the last five years to reflect the model promulgated by the CSU. The updated curriculum was approved both locally and by state regulatory bodies. The new curriculum was initially implemented in fall 2015.
  - The Respiratory Care Department faculty members are adding simulations and technology to the curriculum to better prepare students for future work assignments.
  - The Fire Academy, Wildland Fire, and Emergency Medical Technology program faculty members are incorporating simulations and technology to prepare students better for future work assignments.
  - The Clinical Medical Assisting program and the Office Technology Department faculty members are conducting research to develop a Medical Billing and Coding program.
  - In the discipline of nutrition faculty members are developing an AD-T based on the state-approved curriculum model.
  - The nutrition faculty members have added online sections in response to student demand.
- Ideas Percolating, Undetermined Implementation Date
  - The microbiology course needs to be revised to change from a five to a four-unit class so that it can be used in transfer degrees.
  - To provide experience in teamwork and collaboration, the Registered Nursing Department faculty members need to develop more complex scenarios that include students from different semesters in the program as well as radiology and respiratory therapy students.
  - The Registered Nursing Department faculty members realize that employers prefer to hire nurses who have completed the bachelor's degree. They are seeking additional partnerships and pathways to multiple four-year institutions so that the AVC nursing students have some choices when they want to enter a B.S. program. The faculty members are also interested in promoting some dual enrollment arrangements for the AVC students.
  - The vocational nursing curriculum is five-years old and needs to be updated.
  - The Radiological Technology Department faculty members believe adding mammography experiences at the clinical hospitals would be a helpful addition to the curriculum.
  - The Respiratory Care Department faculty members are considering adding a course in ethics and a sleep disorders certification to the program at a future date.
  - The Commission on Accreditation for Respiratory Care, which is the national accrediting body for Respiratory Care programs, announced in January 2016 that they would no longer accept applications for



accreditation from new two-year programs. They will continue to accredit existing two-year programs. Most states require a bachelor's degree and employers are starting to prefer prospective employees who have completed a bachelor's degree in this field. In Southern California Loma Linda University has a bachelor's degree program in the field, but does not accept any transfers from community colleges.

- The Fire Academy Department faculty members plan to incorporate a medical component and a standardized evaluation process, both of which are being promoted by the state fire academy network.
- The Wildland Fire Department faculty members anticipate creating one or more full-term courses to replace the short-term (one day, weekend, two-week) courses that have not been offered recently.
- The current medical assisting/administrative medical assistant curriculum needs to be strengthened through analysis and reduction of redundancies and identification of missing material in each curriculum.
- Research needs to be completed to explore the costs of accreditation and equipment that is needed to bring the current laboratory up to the accreditation standards of the Commission on Accreditation of Allied Health Education Programs (CAAHEP).
- If a new Medical Billing and Coding program were to be approved, it would be a candidate for additional online delivery of courses.

#### *Perceptions About Facilities*

- The Registered Nursing Department would benefit from more simulation rooms with reliable, stronger Wi-Fi access signals that would not, as the current Wi-Fi does, interfere with online testing in the building.
- Registered nursing faculty members also identified a need for additional lecture rooms on Mondays.
- Registered nursing faculty members realize that often the local hospitals do not have sufficient pediatric patients to support the required clinical rotation in that field. They are contemplating approaching local clinics that specialize in pediatric medicine to develop clinical site agreements to support the instructional program.
- The Radiological Technology Department faculty members are looking for additional off-campus clinical site facilities to support the required clinical instruction component of the program. They also expressed an interest in additional campus laboratory space to accommodate the mobile x-ray machines.
- The Respiratory Care Department faculty members are seeking additional off-campus clinical facilities to support their program.
- The Wildland Fire Department faculty members expressed an interest in a new facility that would have additional storage space, adequate heating and ventilation, and secure insulation.
- The current laboratory used for the medical assisting and clinical medical assisting programs is shared with the respiratory care program. The Commission on Accreditation of Allied Health Education Programs

(CAAHEP) deems the current laboratory space substandard. Should a new medical billing and coding program be initiated, it would require additional laboratory space.

#### *Perceptions About Technology*

- The vocational nursing faculty members indicated a need for better Internet connection in the skills laboratory. They noted that the expansion of virtual instruction (recorded podcasts, virtual hospital, online assessments) would necessitate additional laboratory space in the future.
- The Emergency Medical Technology Department faculty members expressed a need to replace the mannequins in order to maintain program accreditation.

#### *Career and Technical Education Division- Industrial Technology Visions*

- Curriculum Started, Recently Approved or Modified
  - The division faculty members are working to incorporate AVID teaching strategies to better engage students in the learning process.
  - Pipe welding (robotic and manual) is being added to the Welding curriculum. The College is presently a testing site for the structural steel certification exam.
  - A Bachelor of Science Degree program in Airframe Manufacturing Technology is being created. The program is to start in fall 2016.
  - The Antelope Valley hiring managers are reviewing the drafting curriculum to help shape the future of the program.
  - The ACRV curriculum is being brought up to date to teach the current Department of Energy mandates and to comply with California Title 24 energy efficiency standards.
  - The electrical curriculum is routinely updated every three years to meet changes in the National Electrical Code.
- Ideas Percolating, Undetermined Implementation Date
  - The Electronics Department faculty members are considering new curriculum that would be largely hands-on with only 25% classroom theory to teach troubleshooting, soldering, etc.
  - The Automotive Technology Department faculty members anticipate expanding the curriculum to include technology in diesel and alternative fuels.
  - Northrop has asked the Auto Body Department for a course on aircraft refinishing. The faculty members are contemplating expanding the curriculum to include the use of aluminum.
  - The aviation industry is also interested in the College developing a course to teach students how to use a virtual painting machine in which no chemicals are dispensed but analysis of painting patterns and thicknesses is simulated.
  - The AERO program faculty members plan to restructure the curriculum to accommodate the upcoming changes to the Federal Aviation Administration (FAA) regulations governing their program. This faculty

group expressed an interest in offering online courses. They and the AFAB program faculty members believe that future curriculum development should also include avionics and integrated cockpit instruction. A separate program in avionics would be ideal.

- Faculty members in ACRV are intending to do a complete rewrite of their program curriculum.
- The drafting program faculty members are interested in offering online or hybrid courses.

#### *Perceptions About Facilities*

- A potential contract education partnership with Yunnan Traffic Technician College will require additional space, tools and equipment for the AERO program. That space will need compressed air, 220-volt electrical power lines, and classroom and separate computer laboratory space. If as many as 50 students arrive for the program, the College will need additional faculty members.
- The AERO program faculty members believe it would be helpful to co-locate their program with the AFAB program spaces and faculty. The AERO program needs a welding laboratory, separate lead-acid and Ni-cad battery rooms to service batteries, and a small paint booth. The current Fox Field facility does not have room for additional instructional tracks beyond the single day and single evening offerings. The Bachelor of Science degree in Airframe Manufacturing will have an impact on the current facilities used by the AERO and AFAB programs. More space will be needed and is being pursued through negotiations for the Los Angeles Airport authority with the intent of occupying an abandoned museum building at Fox Field.
- The Welding shop is small and the infrastructure is old. Insulation is falling from the walls and ceilings. At a minimum, repairs to the current swamp coolers are needed and additional ones would be helpful. In the long run, a larger, more modern facility is needed.
- Faculty members in the Electrical department indicated that they need additional laboratory space for that program in order to offer both day and evening classes.
- The current facility for electronics is outdated and a new one with proper heating and cooling is needed.
- The existing ACRV laboratory space is too small; therefore, some students work outside. Outside lighting for ACRV evening classes is essential but that will require an electrical upgrade.
- The current Auto Body shop is too small to allow all students to work inside. As a result, some students work outside. Those outside spaces need better outdoor lighting and an electrical system upgraded. A clean area is needed for aluminum repair instruction.
- The facility used by the Automotive Technology Department needs renovation work to make it more modern and useable including the addition of roll-up doors and some additional classrooms. To be current for the industry the program also needs massive updates in equipment and/or repair of existing equipment. The lifts need to be replaced with aboveground lifts and the pits that will be left need to be filled in.

- Faculty members in welding, ACRV, and electrical identified a need to establish a prerequisite, introductory level course to cover basic math, blueprint reading, and tool knowledge to meet the needs of several career and technical programs in the division.

#### *Perceptions About Technology*

- Automotive technology faculty members believe that enhancing more classrooms with technology (smart boards, computer-controlled car systems, etc.) would be helpful.
- Drafting faculty members indicated a need for up-to-date computers to handle the 3D CAD-based modeling software.

#### *Language and Academic Development Division Visions*

- Curriculum Started, Recently Approved or Modified
  - ESL offerings have introduced noncredit courses at the first four levels as of fall 2015.
  - ESL has proposed a certificate for students who complete three of the level-four courses.
  - ESL has offered an online class and plans to offer more credit and perhaps noncredit ESL via the online instructional modality. The department is planning to offer additional classes at the Palmdale Center
  - The reading program has experimented with noncredit curriculum.
  - Reading faculty introduced two sections as hybrid offerings in fall 2015. They are using the Reading Plus online software.
  - Reading faculty members are experimenting with a blended course offering in which 49% of the class time is on campus and the balance is online.
  - Developmental math, English, and reading classes have increased the use of in-class tutors and continue to offer a compressed eight-week schedule.
- Ideas Percolating, Undetermined Implementation Date
  - Expand the vision of the communications program to include media studies.
  - English prefers not to change any course designation two levels below transfer to noncredit.
  - English faculty members are considering more interdisciplinary and team-teaching offerings.
  - The Communications Studies Department faculty members are discussing ways to create more programmatic ties from English to media studies, journalism, film and television, and communication studies as a way to bridge and strengthen the programs of study.
  - The Deaf Studies and Interpreter Training Department faculty members are interested in offering more online and hybrid courses.

### *Perceptions About Facilities*

- Temperatures in classrooms assigned to communication studies are not well regulated.
- Technology (projectors and lighting) often fails, particularly lighting issues, in classrooms assigned to communication studies.
- There are insufficient classrooms that can accommodate 30 students for English instruction.
- More dedicated and centralized space for English instruction, support, and faculty offices is needed.
- English and ESL have no dedicated computer laboratories but would like additional computer labs.
- Re-establishing a study hall for deaf studies students and deaf students referred by DSPS would be helpful. A building to house the Learning Center on the ground floor and the Deaf Studies/Interpreter Training Department on the second floor was proposed in 2011 but still needs to be realized. That building proposal included two classrooms, several offices, storage for ASL videos and other portable technology, a study hall room, and several practice rooms connected to the classrooms. It would be ideal if rooms could also be available at the Palmdale Center, as the discipline would like to offer the program at both Lancaster and Palmdale.
- The Academic Development Department faculty members anticipate completion of room remodeling in the summer of 2016.
- The ESL faculty members requested more smart classrooms.
- The former 2011 plans for a new Learning Center are now outdated and the current Learning Center is little more than a large classroom. Nevertheless, the scope of services provided by the learning specialists has expanded and the Learning Center is commonly full of students.

### *Perceptions About Technology*

- Many of the classrooms assigned to English lack uniform and reliable technology and/or are compromised by light and sound issues. The rooms offer students a sterile and uninspiring learning environment.
- Enhance the technology for online instruction. The interpreting profession is expanding into online interpreting careers.
- Developmental curriculum faculty members expressed a need for more computers in the classroom as well as more routine maintenance of instructional technology (overhead projectors, VCR units and remotes, document cameras, and computer equipment).

### *Mathematics and Sciences Division Visions*

- Curriculum Started, Recently Approved or Modified
  - AS-T in Biology has been drafted and is pending local reviews.
  - AS-T in Plant Sciences is being developed.
  - AS-T in Chemistry is being developed.
  - A new chemistry course, CHEM 205, Quantitative Analysis, was established to take advantage of the new gas chromatograph and nuclear

- magnetic resonance equipment. The course will be part of the contemplated new certificate in Analytical Chemistry-Instrumentation.
- Faculty members in Anthropology are actively exploring the viability of a certificate in forensic anthropology.
  - Mathematics faculty members have implemented distinct “pathways” for student success in basic skills (where almost 70% of the discipline enrollment is located), CTE, transfer into the humanities and STEM education.
    - In fall 2015 two pathways were introduced: (1) transfer into liberal studies and the humanities; and (2) migration into the disciplines of the STEM careers that require calculus.
    - A new statistics and data analysis course has been introduced using the free statistical package called “R”. The course has been forwarded for evaluation as a transferable course.
    - The redesigned modular approach to basic skills math using EducoSoft self-paced software is being assessed and refined. Initial feedback and success data has been positive.<sup>45</sup>
  - The math faculty members have crafted a second chance opportunity in mathematics for high school students. SMAP is an intervention available in several local high schools for students whose initial placement scores indicate weakness in basic mathematics concepts. Upon completion students may retest and usually place into higher-level mathematics.
  - The BIO 120 lab has been transformed into an inquiry-based, hands-on laboratory experience.
  - Biology and physical science faculty members are providing a limited number of opportunities to incorporate undergraduate research experiences for students. This is a companion to internship opportunities provided to students.
  - Physical sciences curriculum has been restructured in light of the AD-T degrees. More courses have been articulated with four-year professional programs, and active learning methods are being introduced.
- Ideas Percolating, Undetermined Implementation Date
    - Upon continued evaluation of the AA-T and AS-T degrees the community college curriculum may be further aligned to the high school programs to ensure seamless matriculation to college and transfer.
    - The life science discipline faculty members are interested in exploring the viability of offering an interdisciplinary Public Health Science AD-T.
    - New elective courses in the Biology AS-T program, including biotechnology has been considered.
    - Create an Environmental Sciences AS-T after the Transfer Model Curriculum is finalized.

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<sup>45</sup> Antelope Valley College, Office of Institutional Effectiveness, Research, and Planning. *Math 099 Success Analysis Fall 2014-2015*.

- Introduce an AA in Water Science with new courses in water chemistry, microbiology, resource management and conservation. A full-time faculty member will be needed to bring this idea to fruition.
- If a scan of the local environment indicates it would be a positive contribution, the Physical Science Department faculty members are interested in creating a certificate in Analytical Chemistry-Instrumentation. Several major local employers have encouraged this consideration.
- The mathematics faculty members are considering an effort to re-introduce a popular MATH 110, Math for Liberal Arts, course.
- Division faculty members are working toward establishing a sustainable student undergraduate research program following the guidelines of the National Science Foundation and Center for Undergraduate Research. Faculty members are working to resolve issues such student credit hours, faculty LHE compensations, and degree applicability and transfer issues.

### *Perceptions About Facilities*

- The Lancaster campus ME and SSV buildings, where many sections of mathematics are taught, are very old and in need of remodel or replacement.
- The division faculty members anticipate using some of the classrooms in the new Palmdale Center to respond to intense enrollment pressure on the division's curriculum.
- A new math course is based on statistical software and will need facilities that support in-class computers as an integral part of classroom activities. Plans are being developed to remodel some rooms in the ME building for this purpose and to accommodate the greater numbers of students engaged in the redesigned modular approach to math basic skills.
- The new modular approach to basic skills math has been well received but it requires additional instructional space with computer workstations for each student. Mathematics faculty members are seeking one large space that would accommodate several activities (tutoring, group discussions, mini lectures, testing areas, workshops, and offices). Classrooms for engineering and mathematics instruction have been included in the proposed high-technology classroom and learning center.
- A renovation of the APL Science Complex is expected to be under way in summer of 2016 and completed for the fall 2016 term. That will open a laboratory for undergraduate research (physical and biological sciences) and create a new engineering testing room. The undergraduate research experience will require additional modules of laboratory research spaces.
- The physical sciences disciplines are at maximum capacity now. Growth will require additional space.
- The rooms in which mathematics are taught need to be equipped with current technology, adequate whiteboard space and proper lighting.

### *Perceptions About Technology*

- Biological and physical science faculty members have recently experienced performance problems with existing multimedia equipment in some of the rooms and laboratories where they teach.

### *Workforce and Economic Development, Community and Contract Education Visions*

- Curriculum Started, Recently Approved or Modified
  - The program is just getting re-launched after a period of dormancy.
  - Classes are offered off campus and on campus. The unit took up occupancy in the former Sheriff's Academy building in February 2016. In addition to offerings of community interest (SAT and GRE preparation, Hindi, living trusts, etc.) the program helps workers at local businesses and industries maintain licensing by offering the following kinds of classes:
    - LVN IV Therapy Certification
    - Phlebotomy Certification
    - Food Handlers- ServSafe Manager's Level Certification
    - CA Guard Card
    - Healthcare CEU Certifications through online ed2go courses
  - Program leadership has increased the corporate contract education services to businesses and organizations.
  - Collaborations with the South Bay Investment Board, Goodwill of Southern California, and El Camino College for the ETP program have been established to help economic development work in the community.
- Ideas Percolating, Undetermined Implementation Date
  - Program leadership will be seeking ways to develop classes specifically directed towards:
    - youth (arts and crafts, home economics, etc.);
    - the cultural and economic diversity of the community; and
    - those employees who have external mandates or incentives for continuing education.
  - The program leadership plans to increase marketing of the offerings to the community and respond more promptly to phone calls and emails.

### *Student Services Division*

#### Technology General

The Student Services Area is seeking to exploit technology to reduce paper, eliminate redundant collection of basic data about students seeking services, curtail unnecessary trips to campus, deliver some services, but also to increase opportunities and to carve out time to have "high touch," face-to-face setting contacts with the students. One goal is to facilitate the student getting what they need without having to come onto the campus.

There is a keen need among the units for technology infrastructure expansion and integration of the technologies. Many of the programs in the area are supported by grants



that will not finance office construction or infrastructure work. It would be ideal if the college software could “populate” common student information needed by the various programs so that all office staff could access that common information. As a unit the leadership acknowledges a need to pay more attention to mobile applications and the student use of mobile devices.

The leadership indicated that the College might not have fully exploited the functionality and features of the Ellucian Student Information System. For example, the College does not have any triggers to send out program information to students who have an expressed interest. The College Information Technology staff is working to develop a data block for student services that will serve as a venue for reporting and providing support to programs.

#### Facilities General

Some common themes regarding facilities needs were as follows: (1) more private office space to converse with students on sensitive topics; (2) the campus has no large, shared multipurpose space that could be used for student services programming; (3) more spaces are needed where students might gather, spend time, build relationships, and engage in informal learning (lounge, study areas, smaller suitably equipped areas with electrical power outlets); (4) computer laboratory spaces adjacent to the office areas would be ideal; (5) there are no good meeting rooms for the various units to use and only one classroom dedicated to the student services area; and (6) the disabled students unit is short on places to proctor exams, particularly in peak periods of mid-terms and finals.

Several units mentioned the critical need to have some offices where the staff can speak with students about private, confidential, sensitive matters or where a student who is agitated, experiencing a “melt down”, or a student with disruptive children can be taken so that others are not disturbed. All of the units need to convey to the students in their programs that the unit is a safe place for the students to be, spend time over break periods between classes, and learn from other students. Building a sense of community would be furthered by such places in the student services area.

Division leadership indicated that it would be ideal if student services could be located closer to where most students are attending classes and further integrate with the academic affairs areas of the college where students spend most of their time.

All of the units have workshops, orientations, and small group meetings with students, but the Student Services Division has only one assigned classroom.

#### *Student Services Division- Counseling & Matriculation Visions*

- Curriculum or Services Started, Recently Approved or Modified
  - The EOP&S office is researching ways to assist students with transportation to and from the Lancaster campus.
  - The EOP&S office has been experimenting with text messaging as a means to communicate to students in the program and has started to develop short videos for recruiting and program information.

- The Office for Students with Disabilities implemented the Accessible Information Management (AIM) software in spring 2016 to better serve students and to handle specific accommodations.
- Counseling has been engaged in strategic marketing and program awareness efforts to make its services known to the faculty and students.
- Counseling has initiated stronger support systems for noncredit ESL students. It has designated a bilingual counselor, provided a bilingual education advisor, offered a First Semester Workshop in Spanish (spring 2016), and developed a new ESL Student Education Plan.
- Ideas Percolating, Undetermined Implementation Date
  - The counseling unit is discussing ways to embed counselors in at least some of the academic divisions to work specifically with students and faculty in those disciplines and to become more aware of specific academic division concerns and needs.
  - Counseling and matriculation intends to:
    - offer online interactive counseling sessions to provide remote site student access,
    - develop upgrades in the online orientation, and
    - upgrade probation and dismissal presentations and workshops.
  - The CalWORKS office is considering a peer-to-peer mentoring and study group program and implementing a permanent system to allow staff to continuously recognize and reward student accomplishments such as earning a high GPA or partaking in community service.
  - The offices of CalWORKS, Students with Disabilities, and EOP&S have started to provide paperless services, and they plan to continue increasing paperless management, and web-based delivery service in the future.

#### *Perceptions About Facilities*

The current student services building cannot adequately house all of the student services programs. Counseling staff identified a need for additional office space for clerical support staff and counselors to meet the mandates from the redesigned matriculation program. The CalWORKS Office anticipated a need for additional space (reception and waiting areas, counselor offices, a larger computer laboratory, a general meeting room, and an area for student study and/or a lounge to promote informal gathering and interaction among program participants). The Office for Students with Disabilities is currently in a modular building but has been part of the planning discussions for a new student services building. The present test-proctoring center cannot accommodate all of the students at peak times (mid-terms and finals). Additional space is needed for that service. The EOP&S Office expressed an interest in a dedicated study room/lounge with multiple electrical outlets for mobile devices owned by students in the program.

#### *Perceptions About Technology*

Counseling has indicated that the technology infrastructure will need to be expanded to accommodate newly mandated student support services. Examples include:

1. increased cable drops and access points in the student services building so that a call center for student contact could be installed;
2. addition of computer lab classroom(s) in which counselors may conduct education planning, first semester transition, and transfer and probation workshops with students; and
3. software that will increase efficiency and security for storing and sharing student documents, records, performance data and service access history between student services offices and personnel.

#### *Student Services Division- Enrollment Services Visions*

- Curriculum or Services Started, Recently Approved or Modified
  - The College requested to be a pilot for the statewide Common Assessment Initiative (CAI) and an electronic education plan is being developed.
  - Admissions and Records implemented an online application.
  - eTranscripts will be available to students starting in March 2016.
- Ideas Percolating, Undetermined Implementation Date
  - The Enrollment Services staff has been investigating third-party software applications that would help them reduce paper processing, store document images, and provide easy access to student data.
  - The transcripts staff has been looking into e-transcripts software.

#### *Perceptions About Facilities*

More space and privacy per employee are needed in the office areas of Enrollment Services. The Financial Aid office moved to less paper a few years ago when the Free Application for Federal Student Aid (FAFSA) went on line. Financial Aid envisions future office space that is adjacent to a computer laboratory where staff can be available to help students and office operational hours are the same as the laboratory open hours. Having that adjacency is a good model for all of the units.

#### *Perceptions About Technology*

The Enrollment Services staff anticipates greater use of technology to provide web-based self-service to students.

#### *Student Services Division- Student Life Visions*

- Curriculum or Services Started, Recently Approved or Modified
  - The S.T.A.R. mentoring program was launched in fall 2015
- Ideas Percolating, Undetermined Implementation Date
  - Several units in Student Life have been exploring the viability of the On Base software application to help them with student documents and make operations more efficient.
  - The First-Year Experience and AVID for Higher Education programs (Bridge to Success Grant), which are part of the Student Activities unit, will be expanded in the future.

- Student Activities plans to increase outreach efforts to elementary and middle schools in response to requests from those school leaders.
- The Student Equity unit is planning to use new state money to support interventions designed to close equity achievement gaps. Examples include providing bus vouchers, funding extended learning center hours, supporting the Umoja and Puente learning communities, and providing childcare vouchers.
- The Job Placement Center anticipates needing to find ways (role playing, work experience, internships, etc.) to assist the millennial students to improve their work ethic, communications skills, and sense of dedication.
- Student Life would like the College to establish an advocate for students with mental health problems.

#### *Perceptions About Facilities*

The Welcome Center/Outreach programs need additional space such as offices, an AVID Center area, a large multi-purpose area for events/activities, general materials storage, and private space for confidential peer mentoring sessions. The allocated area currently offers only three workstations for permanent employees and two for student workers. There are 14 student workers and three permanent employees with two additional positions temporarily vacant.

The Job Placement Office has expressed a need for additional space for student workers, a private meeting space for staff, a larger computer area to hold 10-15 computers, a meeting room, and generally quieter areas. The office also needs a conference room and a space to prepare students for campus events.

The Student Equity program is seeking space for the office staff of six permanent employees and six student workers. The program leadership also recognizes the need for a large multi-purpose room in which to host events with intense student activity and movement.

#### *Perceptions About Technology*

The Student Equity program expressed a need for a tracking system to monitor the success of their intervention projects. The program would like to locate a software product that could help them manage the logistics of an extensive book loan program. Student Activities would like to have software products to help them manage student clubs, batch download data from SEVIS, efficiently sign students in at activities, track student participation, and help evaluate the impact of that participation on student success.

#### *Palmdale Center Visions*

- Services or Curriculum Started, Recently Approved or Modified
  - Student support services have been expanded in recent years and additional expansion of service days will be expanded in the new Center. Cashier services will be available for the first time when the new Center location is opened.

- The successful STEM summer bridge program, which is now limited to 40 students, will have more openings in the new Center location.
- The partnership with Aerospace Academy, an Antelope Valley Union High School District high school, will have more places available for high school students who are dual enrolled with the College.
- The intensive summer bridge program- STEM Science Academy for high school students will be able to accommodate more enrollments once the new Center location is opened.
- A physical place for a STEM Center will be included in the new Center location property development.
- Ideas Percolating, Undetermined Implementation Date
  - In general, the curriculum offerings that have been offered in the past will continue into the future at the new Center, but some disciplines will see increases.
  - Projected offerings contemplate the following increases above what has been offered in the past.
    - Administration of Justice- slight increase in sections/term
    - Child and Family Education- increase in sections/term
    - ESL- slight increase in sections/term
    - Spanish- slight increase in sections/term
    - Sciences- increase in sections/term to use the new web laboratory
    - Deaf Studies- slight increase in sections/term
    - Math- significant increase in sections/term
  - Long-term the possibility of offering a second Associate Degree program, Liberal Arts option 1 with a math emphasis, will be explored. This program is designed for students who aspire to enter the teaching profession.
  - No programs will be moved from the Lancaster main campus to the new Palmdale Center.

### *Perceptions About Facilities*

Within five years the College plans to provide students with a comprehensive education experience at the Palmdale Center. The Center has outgrown its current site, which is shared with two other governmental agencies. The Center's operations began at the present site in 2007 and will move to a new location in Palmdale. It is scheduled to open in spring 2017.

A science wet-lab is not currently available at the Center, but will be constructed in the new location. The new Center will have 7 *more* classrooms compared to the current site. The current Center provides seating for 325 while the new Center will provide 625 seats in lecture classrooms that are larger than those at the present Center location. A Child and Family Education demonstration classroom is planned for the new Center that is not currently available at the existing site.

### *Perceptions About Technology*

The reading courses will be provided a unique room in the new Center. That room will have computers that function as a reading laboratory. When not in use for reading, the computers will fold down into the desk area for traditional lecture instruction. The dual functioning desk will allow the room to be utilized by a variety of courses. Space for a multipurpose room and a conference room, both with distance education equipment, will be created in the new Center.

## **E. Opportunities for New Initiatives, Improvement or Expansion**

Several general areas of opportunity are available to the College at this point in time (academic year 2015-16).

### *Senate Bills 1440/440*

The 2010 enactment of the Student Transfer Achievement Reform (STAR) Act, aka SB 1440, provides the California community colleges with an opportunity to adjust some of the transfer-oriented programs that had been offered and to introduce new ones. The legislation requires a community college district to grant an Associate Degree for Transfer (AD-T) 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 transferring students 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) so that statewide common course descriptions will be used as building blocks. The initial focus of the project was on the most popular transfer majors within the CSU. The goal is to reach agreements on a model curriculum that all community colleges will adopt for each particular major.

A subsequent amendment in 2013 (SB 440) required community colleges, by the start of the 2015-16 academic year, to create before the start of the 2013-14 academic year an associate degree for transfer in every major offered by the college that has an approved transfer model curriculum. Furthermore, the community college system is required to create an associate degree for transfer in specified *areas of emphasis* before the start of the 2016-17 academic year. Two area of emphasis, Global Studies and Social Justice Studies, TMCs were added in fall 2015.

Three additional model curricula have been created to promote a greater degree of standardization within community college associate degrees where the discipline does not fit the 60 lower-division units plus 60 upper-division units structure of the STAR Act.

These *are not* TMCs within the SB1440/440 framework. They are in the fields of: (1) Engineering; (2) Information Technology; and, (3) Nursing.<sup>46</sup>

As of spring 2016, thirty-six model curriculums had been approved that covered the CSU majors selected by roughly 80 percent of the community college transfer students. Throughout the community college system response from individual colleges ranged from only 5 AD-Ts (Palo Verde College) up to 28 AD-Ts (Sierra College). The results indicated that 20,600 community college students earned the new AD-T in 2014-15.<sup>47</sup> Some 7,000 students were accepted at a CSU, an acceptance count that was up from only 450 in 2011-12.<sup>48</sup> Antelope Valley College is among the leading community colleges with the number of AD-T programs of study established. *However, attention to the ongoing enrollment counts and costs to support the twenty-two established AD-T programs of study and the new programs being developed will be essential.*

The SB1440 legislation is a major policy shift for California higher education as it seeks to finally provide a cleaner and clearer path for easier transfer from the community colleges to the CSU where most students transfer. It eliminates the campus-by-campus and major-by-major transfer requirements and represents an unparalleled opportunity for the community colleges to facilitate the transfer process.

The University of California (UC) has also taken steps to simplify the process for transfer students, as it has articulated specific pathways for transfer into its 21 most popular majors. UC identified pathways that are closely aligned with the AD-Ts established between the community colleges and the CSU system. In addition, the UC has pledged to meet the goal of a two-to-one ratio of incoming freshmen to transfer students by 2017-18.<sup>49,50</sup>

#### *Assembly Bill 86- Assembly Bill 104 Block Grant*

The Legislature provided the community college system with an opportunity to serve new students and advance the interests of the State. The May 2015 revision of the Governor's proposed 2015-16 budget included \$500 million to establish an Adult Education Block Grant program that provides funds to school districts and community colleges. Of that total \$350 million is earmarked for adult schools to maintain their level of effort in providing services while \$150 million is set aside for consortia work. The AB 86 program seeks to strengthen coordination of adult education services among adult schools, community colleges, local workforce investment boards, libraries, social service agencies, public safety agencies, etc. by reducing redundancy and providing the services to adult learners more effectively.

Regional consortia proposed transparent governance structures that were jointly approved by the Superintendent of Public Instruction and by the Chancellor of the Community

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<sup>46</sup> For additional information see <https://c-id.net/degreeereview.html>

<sup>47</sup> California Community College Chancellor's Office. *Press Release*. December 10, 2015.

<sup>48</sup> Carl Lariveral. "Easier Path From Community College to Cal State, Report Says," *Los Angeles Times*. February 2, 2015.

<sup>49</sup> Department of Finance. *Higher Education Highlights to the May 2015-16 Revise Budget Proposals*

<sup>50</sup> University of California Transfer Information. Retrieved April 29, 2016 from <http://admission.universityofcalifornia.edu/transfer/preparation-paths/index.html>

College System. The language in the 2015-16 Budget assures funding certainty and consortia are required to engage in robust planning at least once every three years. The Superintendent and Chancellor developed a plan using the consortia structure in future years to distribute Workforce Innovation and Opportunity Act (WIOA), federal Title II, and Perkins funding.

The College has taken advantage of this legislation and funding to provide a life-skills education program to incarcerated individuals as a precursor to a pathway program to an Associate Degree in business. The College also plans to grow a new noncredit ESL curriculum and evaluate ways to incorporate career and technical education classes with the ESL instruction. The College has proposed a noncredit ESL curriculum as a Career Development/College Preparation certificate that would provide the students with a tangible acknowledgement of their accomplishments and make the attendance hours eligible for a higher rate of apportionment compensation. *The College may want to consider a similar curriculum design for GED preparation.*

The Adult Education Plan notes that a number of potential students are not being served by the ESL instruction due to distance, transportation, or childcare barriers. As noted in the external scan of this Plan those potential students are concentrated in a limited number of zip codes, but primarily in the Palmdale area. *Continued careful class schedule planning and marketing will be needed as the College endeavors to serve this population.*

The Antelope Valley Regional Adult Education Consortium Update Plan notes that regional offerings of basic computer technology, professional and interview skills, and general technology instruction for seniors seeking to reenter the workforce is not adequate for the level of demand. *This may be a service area for the College to consider on a space available basis once the needs of credit instruction have been met.*

The Consortium found short-term career and technical education programs to be the top priority in the region. The adult schools have added some programs and the College increased its offerings through corporate and community education for adults who need classes in workplace readiness skills such as communication (reading, speaking, listening and writing), collaboration, work ethic, time management, phone etiquette and message-taking skills, basic tool usage, and measurements. The region could use more offerings in manufacturing, energy, water treatment and distribution, retail, service occupations and construction. Other fields of high employment opportunity in demand include Personal Care Assistant, Home Health Aides or Certified Nursing Assistants, and automotive technicians.<sup>51</sup> *This may be an opportunity for the College to consider for continued expansion.*

#### *California Online Education Initiative (OEI)*

The third general opportunity is the OEI project launched in 2013 that seeks to re-invigorate online instruction within the California community college system by

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<sup>51</sup> Antelope Valley Regional Adult Education Consortium. *AEBG Adult Education Block Grant Three-Year Consortia Plan Update from AB86 final Plan*. November 12, 2015.



addressing some of the known shortcomings in distance learning. The Initiative has the Governor's backing and a \$56.9 million budget over 55 months.

The 27-member steering committee includes representatives from a variety of constituencies that have been organized into workgroups to address: (1) professional development; (2) consortium operations; (3) student support services; (4) a common course management system; (5) basic skills; and, (6) academic affairs. Twenty-four pilot colleges have agreed to test solutions for student readiness; tutoring support strategies; and the use of the common course management system. With the grant funding, the OEI promises to provide colleges with incentives to participate. OEI has offered no-cost or low-cost tools such as a course management system, course design resources, a re-designed California Virtual Campus website and catalog, and professional development for faculty. Future students are promised online learning readiness materials, tutoring and basic skills support, counseling/advising, and streamlined access.

Participation in the OEI is voluntary on the part of the colleges, faculty, and students. One of the most promising aspects of the OEI is the Exchange. It is often challenging for colleges to ensure that all students have access to the courses they need at the times that best fit their busy schedules. The goal of the Exchange is to facilitate progress toward completion by providing access to courses across colleges. Students enrolled at colleges in the Exchange will be able to seamlessly register for Exchange courses, often those high-demand or difficult-to-fill courses. To ensure that course credits are recognized by a student's home college, all participating colleges will become members of the OEI Consortium. Membership will require the college to change business processes to make registration seamless, host technology-based mechanisms to carry out those processes, sponsor courses designed to a set of exemplary online education standards, recruit faculty who are committed to excellence in online learning and teaching strategies, and offer courses students need to complete their educational goals. The vision for the Exchange has been dubbed the "Herculean" task of the OEI as it may be the most complex work undertaken in the overall effort, but it portends great dividends for the students.

As noted in the internal scan portion of this Plan, the College has been an active participant in online instruction. Online instruction holds a promise to reach students outside the region as well as those who live in the service area but who cannot come to the campus. It also provides an option for students at the institution who were unable to enroll in a class they need in order to progress through their chosen program of study. It is clearly a means to reach a broader audience. The College recorded some online instruction in fall 2002 (33.59 FTES) but it represented only 0.92% of all FTES that year. Over the period of fall terms 2010 to 2015 the volume of FTES attributed to online instruction steadily grew from 312.87 FTES then fell off to 297.96 FTES in 2015. From fall 2002 to 2015 online instruction represented, on average, 4.7% of FTES at the College. From the earliest year on record (fall 2000) the volume of FTES generated by online instruction compared to the total FTES *statewide* grew from .03% (130.76 FTES) to 9.5% (49,582.43 FTES) in fall 2015.

Over the years a great deal has been learned about the challenges to effective learning through an online environment. The OEI appears to be offering solutions to those known challenges.<sup>52</sup> The College has prudently participated as a pilot school in the student readiness portion of this initiative. *Therefore, the College is encouraged to explore the benefits of fuller participation in the OEI initiative and to expand the use of this method of instruction through both classes offered entirely online and those offered in a hybrid/blended format with some weekly face-to-face instruction.*

### *Moving Students Through Basic Skills*

The instructional strategies to address this topic have taken on multiple forms among community colleges throughout the nation. In part, it arose because the well-intended established designs of basic skills curriculum sequences often create unintended consequences. Traditional multiple exit points lead many students to get discouraged and leave college.<sup>53</sup> Large scale research studies outside and within California have demonstrated that when a student need to complete more levels of developmental courses, the student is less likely to ever complete college-level courses in English and math.<sup>54</sup>

Other reasons for the increasing popularity of new basic skills strategies emerged from national research that raised questions about the efficacy of making placement decisions based primarily upon the results from a single examination experience.<sup>55</sup> Still other national research has pointed to the ability of high school transcript data to predict success in college.<sup>56</sup> These research efforts opened a “new door” for basic skills initiatives.

The basic skills strategies have been given various definitions and adopted different labels or descriptors. For purposes of this discussion five definitions/strategies have been identified as follows:

1. Compressing the pace of instruction by teaching the same course content over a shorter period of time.

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<sup>52</sup> Hans Johnson. et. al. *Successful Online Courses in California's community Colleges*. Public Policy Institute of California. June 2015

<sup>53</sup> Juan Calcagno and Bridget Long. *The Impact of Postsecondary Remediation Using a Regression Discontinuity Approach*. National Center for Postsecondary Research, April 2008; Thomas Bailey, Dong Jeong, Sung-Woo Cho. *Referral, Enrollment, and Completion in Developmental Education Sequences in Community Colleges*. Community College Research Center, Teachers College, Columbia University. Working Paper # 15, 2009.

<sup>54</sup> Nikki Edgecombe. *Accelerating the Achievement of Developmental Education Students*. Community College Research Center, Teachers College, Columbia University. Working Paper #30, 2011; Peter Bahr, et. al. *Course-Taking Patterns, Policies, and Practices in Developmental Education in the California Community Colleges*. Ed Source. June 2010.

<sup>55</sup> Judith Scott-Clayton. *Do High Stakes Placement Exams Predict College Success?* Community College Research Center, Teachers College, Columbia University. Working Paper #41, 2012; Olga Rodriguez, et. al. *Remedial Placement Testing in Community Colleges*. Community College Research Center, Teachers College, Columbia University. Working Paper # 73, 2014.

<sup>56</sup> Clive Belfield and Peter Crosta. *Predicting Success in College: The Importance of Placement Tests and High School Transcripts*. Community College Research Center, Teachers College, Columbia University. Working Paper #42, 2012.

2. Changing placement policies by adjusting placement exam cut scores and using more robust multiple measures data.
3. Implementing co-requisite models.
4. Embedding basic skills instruction into other courses.
5. Redesigning remedial courses.

Compressing the pace of instruction as a strategy is perhaps inspired by the experience of faculty who teach a summer session of the same course they offer during the fall or spring term. Course retention and success are thought to be higher during the summer session experience. But, is that because students attending during the summer are better prepared and more motivated, or are the results due to the shorter period of time and the more intense instruction and contact with the subject matter? This scheduling strategy during a primary term arranges two levels of remedial curriculum in the discipline so that one course in the sequence follows the other, each using half of the weeks in the primary term. Typically the sequenced courses are taught on the same day and hour pattern with the same instructor. In some cases students are automatically enrolled in both courses to guarantee a place in the classes for the entire term of instruction.

Changing placement policies broadens access to transfer-level courses and makes outcomes equitable for multiple subgroups of students. Nationally, while currently only 19% of students were eligible under existing practices, the national research estimates that 64% of entering students could succeed in college transfer-level English if allowed to enroll directly. Half of entering students could succeed in college math if allowed to enroll directly while only 25% are eligible under existing practices.<sup>57</sup> A California Research Project found that 72% of community college students could be placed into college English using the overall high school GPA and English course GPA data.<sup>58</sup> At least two pioneering California community colleges (Butte and Long Beach) are testing this concept. Reports are favorable. Access to college English was doubled at Butte and quadrupled at Long Beach with success rates that remained steady and equity gaps narrowed.<sup>59</sup> In the Virginia Community College system, completion of college-level math tripled after implementation of a pathways approach to placement.<sup>60</sup>

The strategy of using co-requisites allows students who are characterized as being “below transfer level,” to enroll in a transfer-level course that is in a co-requisite relationship with a support class commonly taught by the same instructor. The positive outcomes in

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<sup>57</sup> Judith Scott-Clayton. *Do High Stakes Placement Exams Predict College Success?* Community College Research Center, Teachers College, Columbia University. Working Paper #41, 2012.

<sup>58</sup> Craig Hayward, John Hetts, Terrance Willett, et. al. *Using Decision Trees to Predict Course Success in the Multiple Measures Assessment Project*. Presentation at the Research and Planning Group Annual Conference, April 2015.

<sup>59</sup> Leslie Henson and Kati Hern. *Let Them In*. Research and Planning Group Perspectives. November/December 2014; Long Beach City College. *Promising Pathways*. 2014. Retrieved from <http://www.lbcc.edu/promisepathways>

<sup>60</sup> Olga Rodriguez and Nikki Edgecombe. *Early Findings From Statewide Developmental Education Reform in Virginia and Florida*. Presentation at the League for Innovation annual conference, March 9, 2015; Hoori Kalamakarian, Julia Raufman, and Nikki Edgecombe. *Statewide Developmental Education Reform: Early Implementation in Virginia and North Carolina*. Community College Research Center, Teachers College, Columbia University. May 2015.

multiple states have been impressive.<sup>61</sup> Using a controlled experimental design the City University of New York found that the majority of students passed college statistics with supplemental instruction, and the pass rate was nearly 29% higher than in the control group of students who initially enrolled in elementary algebra.<sup>62</sup> Four North Carolina community colleges found that completion for college English was 1.6 to 2.3 times higher than in traditional remediation, and equity gaps narrowed or disappeared completely.<sup>63</sup>

Some institutions have successfully pursued a strategy of embedding basic skills instruction into discipline courses. The common approach is to use concrete applications in a specific context that is of interest to the students.<sup>64</sup> The teaching process is built on the recognition that some students learn more effectively when they are taught in a hands-on, real-world context rather than in an abstract manner. The currently popular reading apprenticeship initiative is perhaps another example of this embedded approach.

Redesigning remedial courses is a basic skills strategy that seeks to better align English and math sequences with transfer-level curriculum. A 2014 evaluation of the California Assessment Project (CAP) initiative observed that throughout the California community college system only 7% of the students successfully completed a transferable math course within three years if they begin at three levels below transfer level. The comparable cohort of students in English composition is 19%. However, all of the first 16 California community colleges offering redesigned accelerated remediation reduced the students' time in remediation by at least one semester without making any changes to transferable courses. The study found that students' odds of completing a transferable math course were 4.5 times greater in an accelerated pathway than for students in traditional math remediation course, and completion rates for English composition courses were at least 1.5 times greater and 2.3 times greater in a high-acceleration implementation model than for students in traditional English composition remediation.

These experimental designs were found to work for students of all backgrounds and at all placement levels, but, implementation strategies did impact the final results.<sup>65</sup> The Carnegie Foundation for the Advancement of Teaching has sponsored a national program, Statway, to improve the completion of transfer-level math. Evaluation of that program concluded that, among the 26 pilot colleges, completion rates more than tripled

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<sup>61</sup> Complete College America. *Corequisite Remediation: Spanning the Completion Divide*. Spring 2016; Iris Palmer. *How to Fix Remediation at Scale- Colorado Example*. New America. March 2016; *Is Corequisite Remediation Cost Effective- Early Findings from Tennessee*. Community College Research Center, Teachers College, Columbia University. Research Brief #62, 2016.

<sup>62</sup> Alexandra Logue et. al. *Elementary Algebra or Statistics*. Paper delivered at the American Educational Research Association Conference. April 19, 2015.

<sup>63</sup> Dawn Coleman. *Replicating the Accelerated Learning Program*. Center for Applied Research. 2015.

<sup>64</sup> C. Mazzeo. *Supporting Student Success at California Community Colleges*. Career Ladders Project. 2008. Dolores Perin and Rachel Hare. *A Contextualized Reading-Writing Intervention for Community College Students*. Community College Research Center, Teachers College, Columbia University. May 2011. Elaine Baker, Laura Hope, Kelley Karandjeff. *Contextualized Teaching & Learning: A Faculty Primer*. Research and Planning Group. 2009.

<sup>65</sup> Craig Hayward and Terrence Willett. *Curricular Redesign and Gatekeeper Completion: A Multi-College Evaluation of the California Acceleration Project*. April 2014

in half the time (49% in one year vs. 15% in two years).<sup>66</sup> This math strategy, sometimes described as Statway, is now fully accepted by the University of California and the California State University systems.<sup>67</sup>

A California Basic Skills Project (CAP) has been in place since 2010-11 as a response to the basic skills performance challenge and was a curricular design effort at some California community colleges years before the project formally began. The CAP seeks to promote curricular redesign to reduce the sequence length and eliminate “exit points” in the basic skills educational experience. It also promotes a reconsideration of curricular content to focus on what is taught and how it is taught with the guiding question of what students truly need to succeed in college English or math. As of June 2011, more than 80 colleges had participated in the CAP professional development activities.

The Mathematics faculty members have crafted a dual track for AVC students. One that leads through algebra to calculus for those students interested in STEM or other fields of study that require calculus. A second pathway provides some instruction in algebra but leads to a basic statistics course for those students interested in fields of study that do not require calculus. These dual pathways were launched in fall 2015. The Mathematics Department basic skills experiment, Math 099/001, using EducoSoft self-paced software and a modularization curriculum design has had a profound and positive impact.<sup>68</sup>

*Given the reported positive outcomes from the California and national research, some pilot project effort in English composition may be a worthy effort for the College to undertake.*

#### *Dual Enrollment- AB288*

The most recent legislation to promote collaboration, AB 288 that took effect in January 2016, authorizes the governing board of a community college district to enter into a College and Career Access pathways (CCAP) partnership with the governing board of a school district. The partnerships offer or expand dual enrollment opportunities for students who may not already be college-bound or are from groups underrepresented in higher education. The goal is to develop a seamless pathway from high school to community college for career-technical education or preparation for transfer, improving high school graduation rates, or helping high school students achieve college and career readiness. The following are the highlights of the legislation:

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<sup>66</sup> Nicole Sowers and Hiroyuki Yamada. *Pathways Impact Report*. Carnegie Foundation for the Advancement of Teaching. 2015.

<sup>67</sup> UC/CSU Path Cleared for Statistics Pathways, October 20, 2015. Retrieved from <http://cap.3csn.org/2015/10/20/uccsu-path-cleared-for-statistics-pathways/>. See also Office of the Chancellor. California State University. *Statistics Pathways in CSU Quantitative Reasoning*. October 20, 2015 and University of California. *Special Regulations for Courses in Specific Subject Areas*. Retrieved October 20, 2015 from <http://ucop.edu/transfer-articulation/transferable-course-agreements/tca-policy/regulations-by-subject-area.html#s>

<sup>68</sup> Bonnie Suderman, vice President for Academic Affairs, Antelope Valley College. *Board Goals Progress Presentation*. May 10, 2016.

- Community colleges can assign priority “no fee” enrollment and registration to high school students in a CCAP;
- Community college courses during the regular high school day can be restricted to high school students and do not have to meet the normal open enrollment standard;
- Courses with no available seats on campus cannot be offered at high schools through the CCAP because the public must have access to the course;
- Basic skills math and English can be offered through CCAP, but only for students who are not at grade level in that subject; and,
- Community colleges can claim FTES if the high school student is qualified for full high school apportionment without using hours of the college course.

The College has hosted a very successful and popular Early College High School effort, known as Students on the Academic Rise (SOAR), which facilitates dual enrollment with instruction actually conducted at AVC. With an emphasis on mathematics, science, and engineering this dual enrollment opportunity is for well-prepared and highly-motivated high school students.

The AB288 legislation opens the door for the College to explore creative ways to better prepare prospective AVC students while they are still in high school. The AVC math department has devised a summer and school year zero-period offering instructional package, senior math assessment placement (SMAP), to improve high school student placement scores for those students who are performing below grade level or who need to brush up on math skills. The Rosamond High School has implemented the Expository Reading and Writing (ERWC) curriculum to help below grade level students strengthen their composition skills while still in high school. *The College may wish to collaborate with the public schools in considering additional interventions in both math and English to cultivate a pool of prospective students who are better prepared for collegiate instruction.*

#### *Shared Facilities*

The College has unique facilities arrangements with CSU Bakersfield, the Antelope Valley Joint Union High School District, and CSU Long Beach, which have been forged to support academic instructional programs. The College may want to consider shared locations such as a manufacturing center to provide job training in the Antelope Valley area.

#### *Student Services*

The student services units have aggressively pursued the use of technology to

- reduce paperwork and retention of physical documents where possible,
- curtail unnecessary trips to campus, and
- maximize self-service options.

The leadership in student service would like to eliminate redundant collection of basic data about students and make that easily accessible at computer monitors for all staff in the various units. These measures have been pursued and the vision is to increase more meaningful face-to-face contacts that will provide student support and encourage student

development. *The College may want to purposely explore ways to further advance this agenda.*

#### *Academic Affairs*

Advice from community leaders has encouraged the instructional leadership to continue efforts to grow programs in the:

- trades, particularly in aerospace and advanced manufacturing;
- science, technology, engineering, and mathematics (STEM) disciplines; and
- health care professions.

Faculty members in engineering are currently listening to advice from their industry advisory committee and exploring ways to re-tool the engineering technology program. The redesigned program will become more applied engineering and potentially responsive to the needs of manufacturing firms in the Antelope Valley area.

There is a commitment to maintain the established AD-Ts where feasible and to package those existing programs so that students are more successful in a shorter period of time. As efforts for a two-year schedule and extensive, coordinated student support are being designed for cohorts of students who have elected to pursue an AS-T or AA-T degree pathway, the AVC2CSU initiative is the prime example of this commitment.

A current STEM grant has produced a STEM pathway and outreach to prospective students. A new STEM grant proposal is being developed to further advance educational opportunities in these disciplines.

The College has also recently expanded community and contract education services.

Faculty members are actively exploring new CTE programs in Business Information Worker and Medical Billing and Coding.

*Given the range of advanced manufacturing firms in Antelope Valley that have expressed an interest in additional hiring in the near future, the College may want to explore the possibilities of some common instructional package that would provide graduates with a skill set that would be attractive to a range of local prospective employers.*



Main campus foliage



## VIII. Projections for Future Growth

### A. Future Capacity for Growth

#### Dynamics of Future Capacities

Linking the Educational Master Plan's internal and external analysis to Weekly Student Contact Hours (WSCH) and space quantification completes the process of planning for future instructional capacity. It balances the current curriculum, instructional delivery modes, learning environment, and necessary support structures with a comprehensive program of campus development. The extent and direction of future curriculum development is uncertain, but the visions of future curriculum in the Opportunities for the Future chapter will be evaluated against the needs of the labor market, interests of prospective students, opportunities provided by the four-year transfer institutions, the College's mission, and priorities and financial resources.

The current and immediate future economic indicators are improving, and it is anticipated that the College will continue to experience positive growth in the foreseeable future. Therefore, planning must involve developing a long-term vision as well as meeting short-term goals.

As a dynamic process, educational planning involves a mixture of methods and a variety of assessments. Looking to the future, a master plan must strive to:

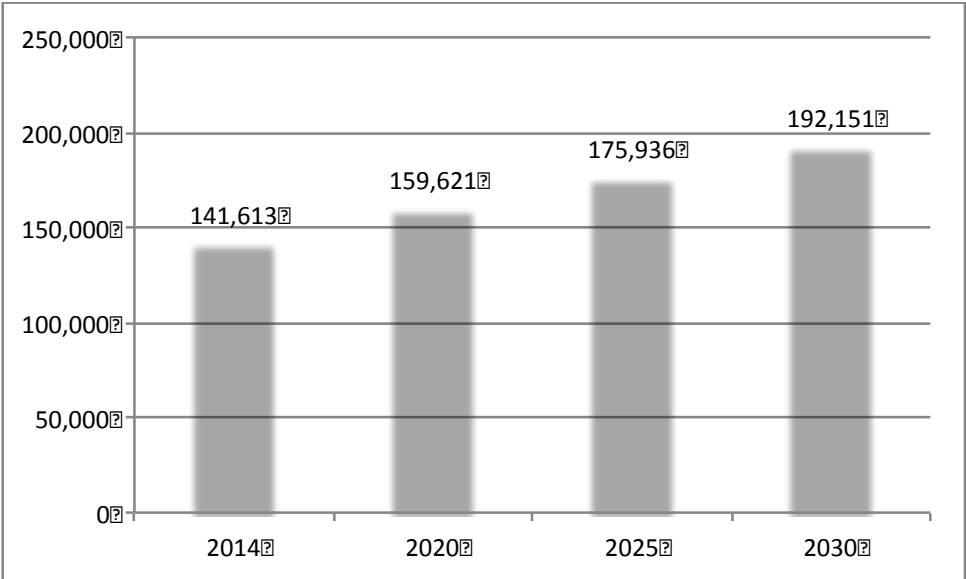
- assure sufficient facilities to accommodate higher enrollment numbers;
- improve the teaching/learning environment;
- address new program development;
- integrate the latest technological innovations; and,
- provide adequate space configuration that permits flexible teaching methods.

#### Lancaster Campus

By considering expected economic and fiscal factors out to 2030, a growth projection for WSCH was established for the Lancaster Campus. Its projected growth is at an annual rate of 2.2% through the 2030. While modest, this growth does represent a reasonable forecast for this College at this time.

In any planning cycle, the projected WSCH is time specific and addresses future needs for increased capacity that may or may not materialize exactly at the times projected. The strategic goal is to plan for sufficient facilities that are flexible enough to accommodate additional enrollments when they do materialize.

Chart 27: AVC, Lancaster Campus Weekly Student Contact Hours (WSCH) Forecast



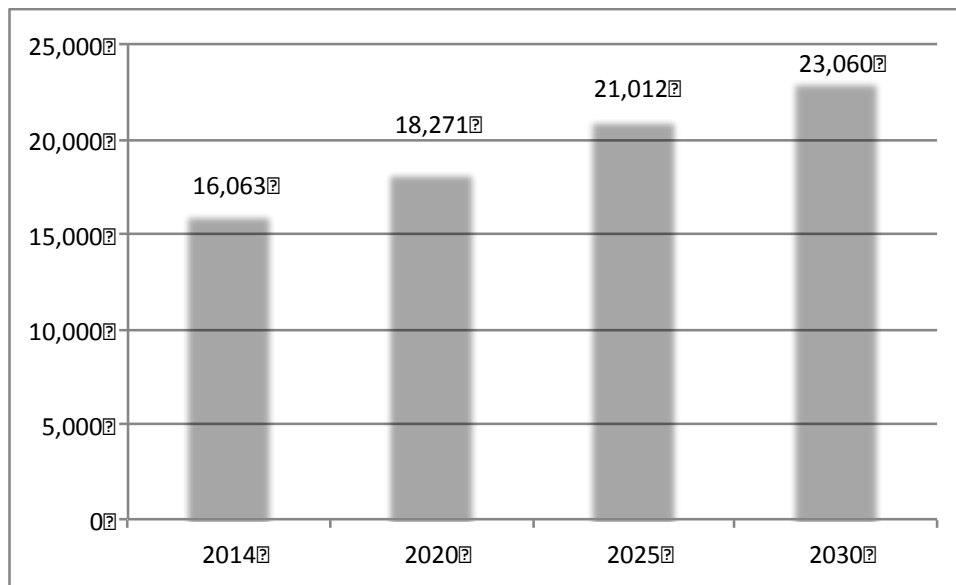
Source: Cambridge West Partnership, LLC Projections

### Palmdale Center

As a satellite center operation the Palmdale Center has generated far less weekly student contact hours. The new location that is scheduled to open in spring 2017 will increase the capacity of the Center to accommodate more student services. The projected growth is at an annual 2.7% through the 2030. While modest, this growth does represent a reasonable forecast for this College Center at this time.

The projected WSCH may not develop exactly at the times predicted, but when the Center achieves those levels of instructional activity, it will need sufficient facilities to accommodate the growth.

Chart 28: AVC, Palmdale Center Weekly Student Contact Hours (WSCH) Forecast



Source: Cambridge West Partnership, LLC Projections

While the overwhelming number of students attending classes at the Palmdale Center in the baseline term of fall 2014 lived in Palmdale, the minority of them attended *exclusively* at that location. When the rate of growth for the District is applied to the Palmdale Center as well as the Lancaster Campus, the projected headcounts might look like those in the following table. However, there is every reason to believe that as an increasing variety of courses are offered and more sections are scheduled to meet at the new Palmdale Center, enrollments from students who will exclusively attend there will increase overtime.

Table 32: Enrollment Patterns by Location, Fall 2014 and Beyond

| <b>Location</b> | <b>2014</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>% Change</b> | <b>Each Yr % Change</b> |
|-----------------|---------------|---------------|---------------|---------------|-----------------|-------------------------|
| Palmdale Only   | 902           | 1,099         | 1,293         | 1,428         | 58.3%           | 3.6%                    |
| Lancaster Only  | 11,730        | 13,220        | 14,568        | 15,908        | 35.6%           | 2.2%                    |
| Both Locations  | 2,045         | 2,136         | 2,279         | 2,516         | 23.0%           | 1.4%                    |
| <b>Total</b>    | <b>14,677</b> | <b>16,454</b> | <b>18,140</b> | <b>19,852</b> | <b>35.3%</b>    | <b>2.2%</b>             |

Source: Cambridge West Partnership, LLC



Antelope Valley College main campus

### The Baseline

The fall 2014 program of instruction provided a snapshot in time used as a baseline for this EMP. To address the capacities for the future, a planning model was created. This planning model, or baseline, provided the foundation from which a future program of instruction could be projected.

Table 33: AVC Lancaster Campus Baseline, Fall 2014

| <b>DIVISION</b>                                | <b># Sect.</b> | <b>Seats</b> | <b>Seats/Sect.</b> | <b>WSCH</b>      | <b>WSCH/Sec</b> | <b>FTES</b>   |
|------------------------------------------------|----------------|--------------|--------------------|------------------|-----------------|---------------|
| <b>Career &amp; Technical Ed.</b>              |                |              |                    |                  |                 |               |
| <i>Accounting 0500</i>                         | 15             | 388          | 25.87              | 1,436.03         | 95.74           | 46.50         |
| <i>Business 0500</i>                           | 33             | 901          | 27.30              | 2,880.40         | 87.28           | 93.27         |
| <i>Clothing &amp; Textiles 1300</i>            | 9              | 145          | 16.11              | 635.25           | 70.58           | 20.57         |
| <i>Interior Design 1300</i>                    | 9              | 158          | 17.56              | 569.47           | 63.27           | 18.44         |
| <i>Management 0500</i>                         | 9              | 224          | 24.89              | 716.78           | 79.64           | 23.21         |
| <i>Marketing 0500</i>                          | 3              | 71           | 23.67              | 227.29           | 75.76           | 7.36          |
| <i>Real Estate 0500</i>                        | 6              | 175          | 29.17              | 559.90           | 93.32           | 18.13         |
| <i>Computer Applications 0700</i>              | 29             | 664          | 22.90              | 2,618.51         | 90.29           | 84.79         |
| <i>Computer Information Science 0700</i>       | 12             | 256          | 21.33              | 1,010.16         | 84.18           | 32.71         |
| <i>Office Technology 0500</i>                  | 11             | 264          | 24.00              | 1,104.04         | 100.37          | 35.75         |
| <i>AutoBody 0949</i>                           | 4              | 66           | 16.50              | 911.65           | 227.91          | 29.52         |
| <i>Air Cond, Refrig &amp; Ventilation 0946</i> | 5              | 110          | 22.00              | 1,420.28         | 284.06          | 45.99         |
| <i>Aircraft Fab &amp; Assembly 0950</i>        | 10             | 224          | 22.40              | 1,429.24         | 142.92          | 46.28         |
| <i>Automotive Technology 0948</i>              | 8              | 196          | 24.50              | 1,330.72         | 166.34          | 43.09         |
| <i>Drafting/Comp Aided Design 0953</i>         | 1              | 26           | 26.00              | 168.31           | 168.31          | 5.45          |
| <i>Electrical Technology 0952</i>              | 9              | 195          | 21.67              | 1,080.88         | 120.10          | 35.00         |
| <i>Electronic Technology 0934</i>              | 5              | 112          | 22.40              | 631.54           | 126.31          | 20.45         |
| <i>Engineering 0953</i>                        | 9              | 209          | 23.22              | 927.09           | 103.01          | 30.02         |
| <i>Welding 0956</i>                            | 8              | 182          | 22.75              | 818.07           | 102.26          | 26.49         |
| <b>Subtotal</b>                                | <b>195</b>     | <b>4566</b>  | <b>23.42</b>       | <b>20,475.62</b> | <b>105.00</b>   | <b>663.02</b> |
| <b>Nursing Department</b>                      |                |              |                    |                  |                 |               |
| <i>Registered Nursing 1200</i>                 | 36             | 541          | 15.03              | 4,033.24         | 112.03          | 130.60        |
| <i>Vocational Nursing 1200</i>                 | 4              | 40           | 10.00              | 484.24           | 121.06          | 15.68         |
| <i>Emergency Medical Tech1200</i>              | 4              | 47           | 11.75              | 423.09           | 105.77          | 13.70         |
| <i>Fire Technology 2100</i>                    | 13             | 318          | 24.46              | 1,142.96         | 87.92           | 37.01         |
| <i>Medical Assisting 1200</i>                  | 5              | 119          | 23.80              | 507.09           | 101.42          | 16.42         |
| <i>Nutrition &amp; Foods 1300</i>              | 10             | 325          | 32.50              | 1,072.24         | 107.22          | 34.72         |
| <i>Radiologic Technology 1200</i>              | 2              | 20           | 10.00              | 275.78           | 137.89          | 8.93          |
| <i>Respiratory Care 1200</i>                   | 5              | 70           | 14.00              | 487.32           | 97.46           | 15.78         |
| <b>Subtotal</b>                                | <b>79</b>      | <b>1480</b>  | <b>18.73</b>       | <b>8,425.94</b>  | <b>106.66</b>   | <b>272.84</b> |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC

Table 33: AVC Lancaster Campus Baseline, Fall 2014 (continued)

| DIVISION                                                              | # Sect.    | Seats       | Seats/Sect.  | WSCH             | WSCH/Sec     | FTES          |
|-----------------------------------------------------------------------|------------|-------------|--------------|------------------|--------------|---------------|
| <b>Counseling</b>                                                     |            |             |              |                  |              |               |
| <i>Human Development 4930</i>                                         | 15         | 420         | 28.00        | 1,100.96         | 73.40        | 35.65         |
| <b>Subtotal</b>                                                       | <b>15</b>  | <b>420</b>  | <b>28.00</b> | <b>1,100.96</b>  | <b>73.40</b> | <b>35.65</b>  |
|                                                                       |            |             |              |                  |              |               |
| <b>Library</b>                                                        |            |             |              |                  |              |               |
| <i>Library Science 1600</i>                                           | 6          | 133         | 22.17        | 291.22           | 48.54        | 9.43          |
| <b>Subtotal</b>                                                       | <b>6</b>   | <b>133</b>  | <b>22.17</b> | <b>291.22</b>    | <b>48.54</b> | <b>9.43</b>   |
|                                                                       |            |             |              |                  |              |               |
| <b>Kinesiology &amp; Athletics &amp; Visual &amp; Performing Arts</b> |            |             |              |                  |              |               |
| <i>Athletic Training 1200</i>                                         | 2          | 41          | 20.50        | 154.41           | 77.21        | 5.00          |
| <i>Dance 1000</i>                                                     | 14         | 386         | 27.57        | 1,309.72         | 93.55        | 42.41         |
| <i>Health Education 0837</i>                                          | 26         | 1062        | 40.85        | 3,363.40         | 129.36       | 108.91        |
| <i>Kinesiology 0835</i>                                               | 64         | 1680        | 26.25        | 6,115.63         | 95.56        | 198.03        |
| <i>Recreational Leadership 0836</i>                                   | 1          | 33          | 33.00        | 101.91           | 101.91       | 3.30          |
| <i>Art 1000</i>                                                       | 32         | 761         | 23.78        | 3,781.54         | 118.17       | 122.45        |
| <i>Digital Media 0600</i>                                             | 46         | 1004        | 21.83        | 2,692.01         | 58.52        | 87.17         |
| <i>Film &amp; Television 0600</i>                                     | 8          | 274         | 34.25        | 1,133.69         | 141.71       | 36.71         |
| <i>Music 1000</i>                                                     | 34         | 804         | 23.65        | 2,415.31         | 71.04        | 78.21         |
| <i>Music-Commercial 1000</i>                                          | 21         | 586         | 27.90        | 1,757.21         | 83.68        | 56.90         |
| <i>Photography 1000</i>                                               | 3          | 86          | 28.67        | 270.53           | 90.18        | 8.76          |
| <i>Photography-Commercial 1000</i>                                    | 20         | 361         | 18.05        | 935.12           | 46.76        | 30.28         |
| <i>Theater Arts 1000</i>                                              | 17         | 411         | 24.18        | 1,572.22         | 92.48        | 50.91         |
| <b>Subtotal</b>                                                       | <b>288</b> | <b>7489</b> | <b>26.00</b> | <b>25,602.71</b> | <b>88.90</b> | <b>829.04</b> |
|                                                                       |            |             |              |                  |              |               |
| <b>Language Arts &amp; Academic Development</b>                       |            |             |              |                  |              |               |
| <i>Learning Assis Courses 4930</i>                                    | 12         | 2091        | 174.25       | 71.03            | 5.92         | 2.30          |
| <i>Reading 1500</i>                                                   | 13         | 445         | 34.23        | 1,418.12         | 109.09       | 45.92         |
| <i>Chinese 1100</i>                                                   | 1          | 32          | 32.00        | 166.46           | 166.46       | 5.39          |
| <i>Communication Studies 1500</i>                                     | 32         | 852         | 26.63        | 2,720.12         | 85.00        | 88.08         |
| <i>Deaf Studies 0850</i>                                              | 15         | 406         | 27.07        | 1,911.62         | 127.44       | 61.90         |
| <i>English 1500</i>                                                   | 113        | 3180        | 28.14        | 10,789.06        | 95.48        | 349.36        |
| <i>ESL 4930</i>                                                       | 18         | 377         | 20.94        | 1,269.57         | 70.53        | 41.11         |
| <i>French 1100</i>                                                    | 5          | 127         | 25.40        | 660.57           | 132.11       | 21.39         |
| <i>German 1100</i>                                                    | 3          | 88          | 29.33        | 457.37           | 152.46       | 14.81         |
| <i>Interpreter Training 0850</i>                                      | 4          | 91          | 22.75        | 403.32           | 100.83       | 13.06         |
| <i>Journalism 0600</i>                                                | 1          | 17          | 17.00        | 60.53            | 60.53        | 1.96          |
| <i>Latin 1100</i>                                                     | 1          | 17          | 17.00        | 88.32            | 88.32        | 2.86          |
| <i>Spanish 1100</i>                                                   | 15         | 420         | 28.00        | 2,163.62         | 144.24       | 70.06         |
| <b>Subtotal</b>                                                       | <b>233</b> | <b>8143</b> | <b>34.95</b> | <b>22,179.71</b> | <b>95.19</b> | <b>718.20</b> |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC

Table 33: AVC Lancaster Campus Baseline, Fall 2014 (continued)

| <b>DIVISION</b>                             | <b># Sect.</b> | <b>Seats</b>  | <b>Seats/Sect.</b> | <b>WSCH</b>       | <b>WSCH/Sec</b> | <b>FTES</b>    |
|---------------------------------------------|----------------|---------------|--------------------|-------------------|-----------------|----------------|
| <b>Math &amp; Science</b>                   |                |               |                    |                   |                 |                |
| <i>Mathematics 1700</i>                     | 138            | 5034          | 36.48              | 19,747.41         | 143.10          | 639.44         |
| <i>Agriculture/Park &amp; Land Mgt 0100</i> | 5              | 120           | 24.00              | 459.84            | 91.97           | 14.89          |
| <i>Astronomy 1900</i>                       | 5              | 149           | 29.80              | 469.10            | 93.82           | 15.19          |
| <i>Biology 0400</i>                         | 74             | 2192          | 29.62              | 10,066.72         | 136.04          | 325.97         |
| <i>Chemistry 1900</i>                       | 26             | 616           | 23.69              | 4,671.57          | 179.68          | 151.27         |
| <i>Earth Science 1900</i>                   | 1              | 25            | 25.00              | 159.97            | 159.97          | 5.18           |
| <i>Geography/GIS 2200</i>                   | 11             | 394           | 35.82              | 1,259.38          | 114.49          | 40.78          |
| <i>Geology 1900</i>                         | 4              | 129           | 32.25              | 412.90            | 103.22          | 13.37          |
| <i>Physics 1900</i>                         | 8              | 176           | 22.00              | 1,252.59          | 156.57          | 40.56          |
| <i>Physical Science 1900</i>                | 3              | 68            | 22.67              | 435.13            | 145.04          | 14.09          |
| <i>Water Treatment 0958</i>                 | 2              | 49            | 24.50              | 156.57            | 78.29           | 5.07           |
| <b>Subtotal</b>                             | <b>277</b>     | <b>8952</b>   | <b>32.32</b>       | <b>39,091.19</b>  | <b>141.12</b>   | <b>1265.8</b>  |
| <b>Social &amp; Behavioral Science</b>      |                |               |                    |                   |                 |                |
| <i>Anthropology 2200</i>                    | 7              | 267           | 38.14              | 853.90            | 121.99          | 27.65          |
| <i>Child &amp; Family Education 1300</i>    | 17             | 437           | 25.71              | 1,454.87          | 85.58           | 47.11          |
| <i>Psychology 2000</i>                      | 22             | 1167          | 53.05              | 3,733.68          | 169.71          | 120.90         |
| <i>Sociology 2200</i>                       | 21             | 888           | 42.29              | 2,845.50          | 135.50          | 92.14          |
| <i>Administration of Justice 2100</i>       | 37             | 1180          | 31.89              | 3,780.00          | 102.16          | 122.40         |
| <i>Economics 2200</i>                       | 4              | 129           | 32.25              | 412.90            | 103.22          | 13.37          |
| <i>Education 0800</i>                       | 4              | 119           | 29.75              | 380.78            | 95.19           | 12.33          |
| <i>History 2200</i>                         | 40             | 1592          | 39.80              | 5,094.35          | 127.36          | 164.96         |
| <i>Philosophy 1500</i>                      | 28             | 936           | 33.43              | 2,993.74          | 106.92          | 96.94          |
| <i>Political Science 2200</i>               | 18             | 905           | 50.28              | 2,895.53          | 160.86          | 93.76          |
| <b>Subtotal</b>                             | <b>198</b>     | <b>7620</b>   | <b>38.48</b>       | <b>24,445.24</b>  | <b>123.46</b>   | <b>791.56</b>  |
| <b>GRAND TOTAL</b>                          | <b>1,291</b>   | <b>38,803</b> | <b>30.06</b>       | <b>141,612.57</b> | <b>109.69</b>   | <b>4,585.6</b> |
| <b>Off Campus Sections</b>                  |                |               |                    |                   |                 |                |
| Fire Technology 2100                        | 1              | 33            | 33.00              | 242.12            | 242.12          | 7.84           |
| Aircraft Fab & Assembly 0946                | 2              | 49            | 24.50              | 1,298.29          | 649.15          | 42.04          |
| English 1500                                | 1              | 31            | 31.00              | 99.13             | 99.13           | 3.21           |
| History 2200                                | 1              | 32            | 32.00              | 102.53            | 102.53          | 3.32           |
| <b>Subtotal</b>                             | <b>5</b>       | <b>145</b>    | <b>29.00</b>       | <b>1,742.07</b>   | <b>348.41</b>   | <b>56.41</b>   |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC

Table 34: AVC Palmdale Center Baseline, Fall 2014

| DIVISION                                                         | # Sect.   | Seats      | Seats/Sect.  | WSCH            | WSCH/Sect.    | FTES          |
|------------------------------------------------------------------|-----------|------------|--------------|-----------------|---------------|---------------|
| <b>Career &amp; Technical Ed</b>                                 |           |            |              |                 |               |               |
| <i>Accounting 0500</i>                                           | 1         | 26         | 26.00        | 83.07           | 83.07         | 2.69          |
| <i>Business 0500</i>                                             | 4         | 97         | 24.25        | 310.37          | 77.59         | 10.05         |
| <i>Computer Applications 0700</i>                                | 3         | 63         | 21.00        | 264.66          | 88.22         | 8.57          |
| <i>Computer Information Science 0700</i>                         | 1         | 21         | 21.00        | 88.32           | 88.32         | 2.86          |
| <b>Subtotal</b>                                                  | <b>9</b>  | <b>207</b> | <b>23.00</b> | <b>746.43</b>   | <b>82.94</b>  | <b>24.17</b>  |
| <b>Career &amp; Technical Ed</b>                                 |           |            |              |                 |               |               |
| <i>Medical Assisting 1200</i>                                    | 2         | 66         | 33.00        | 202.90          | 101.45        | 6.57          |
| <i>Nutrition &amp; Foods 1300</i>                                | 6         | 193        | 32.17        | 596.65          | 99.44         | 19.32         |
| <b>Subtotal</b>                                                  | <b>8</b>  | <b>259</b> | <b>32.38</b> | <b>799.54</b>   | <b>99.94</b>  | <b>25.89</b>  |
|                                                                  |           |            |              |                 |               |               |
| <b>Library Dept</b>                                              |           |            |              |                 |               |               |
| <i>Library Science 1600</i>                                      | 1         | 9          | 9.00         | 8.96            | 8.96          | 0.29          |
| <b>Subtotal</b>                                                  | <b>1</b>  | <b>9</b>   | <b>9.00</b>  | <b>8.96</b>     | <b>8.96</b>   | <b>0.29</b>   |
|                                                                  |           |            |              |                 |               |               |
| <b>Counseling</b>                                                |           |            |              |                 |               |               |
| <i>Human Development 4930</i>                                    | 1         | 41         | 41.00        | 131.25          | 131.25        | 4.25          |
| <b>Subtotal</b>                                                  | <b>1</b>  | <b>41</b>  | <b>41.00</b> | <b>131.25</b>   | <b>131.25</b> | <b>4.25</b>   |
|                                                                  |           |            |              |                 |               |               |
| <b>Kinesiology, Athletics &amp; Visual &amp; Performing Arts</b> |           |            |              |                 |               |               |
| <i>Health Education 0837</i>                                     | 4         | 139        | 34.75        | 444.71          | 111.18        | 14.40         |
| <i>Kinesiology 0835</i>                                          | 2         | 48         | 24.00        | 153.49          | 76.74         | 4.97          |
| <i>Art 1000</i>                                                  | 1         | 22         | 22.00        | 70.41           | 70.41         | 2.28          |
| <b>Subtotal</b>                                                  | <b>7</b>  | <b>209</b> | <b>29.86</b> | <b>668.60</b>   | <b>95.51</b>  | <b>21.65</b>  |
|                                                                  |           |            |              |                 |               |               |
| <b>Language Arts &amp; Academic Development</b>                  |           |            |              |                 |               |               |
| <i>Reading 1500</i>                                              | 3         | 71         | 23.67        | 226.99          | 75.66         | 7.35          |
| <i>Communication Studies 1500</i>                                | 13        | 343        | 26.38        | 1,097.56        | 84.43         | 35.54         |
| <i>Deaf Studies 0850</i>                                         | 1         | 30         | 30.00        | 155.96          | 155.96        | 5.05          |
| <i>English 1500</i>                                              | 13        | 409        | 31.46        | 1,421.82        | 109.37        | 46.04         |
| <i>ESL 4930</i>                                                  | 4         | 90         | 22.50        | 363.79          | 90.95         | 11.78         |
| <b>Subtotal</b>                                                  | <b>34</b> | <b>943</b> | <b>27.74</b> | <b>3,266.12</b> | <b>96.06</b>  | <b>105.76</b> |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC



Table 34: AVC Palmdale Center Baseline, Fall 2014 (continued)

| <b>DIVISION</b>                          | <b># Sect.</b> | <b>Seats</b> | <b>Seats/Sect.</b> | <b>WSCH</b>      | <b>WSCH/Sect.</b> | <b>FTES</b>   |
|------------------------------------------|----------------|--------------|--------------------|------------------|-------------------|---------------|
| <b>Math &amp; Science</b>                |                |              |                    |                  |                   |               |
| <i>Mathematics 1700</i>                  | 17             | 683          | 40.18              | 2,823.88         | 166.11            | 91.44         |
| <i>Biology 0400</i>                      | 3              | 114          | 38.00              | 428.96           | 142.99            | 13.89         |
| <i>Geography/GIS 2200</i>                | 5              | 134          | 26.80              | 425.25           | 85.05             | 13.77         |
| <i>Geology 1900</i>                      | 2              | 75           | 37.50              | 239.65           | 119.82            | 7.76          |
| <i>Physical Science 1900</i>             | 1              | 18           | 18.00              | 115.19           | 115.19            | 3.73          |
| <b>Subtotal</b>                          | <b>28</b>      | <b>1,024</b> | <b>36.57</b>       | <b>4,032.93</b>  | <b>144.03</b>     | <b>130.6</b>  |
| <b>Social &amp; Behavioral Science</b>   |                |              |                    |                  |                   |               |
| <i>Child &amp; Family Education 1300</i> | 5              | 124          | 24.80              | 396.84           | 79.37             | 12.85         |
| <i>Child Dev Center 1300 Off Site</i>    | 9              | 216          | 24.00              | 483.62           | 53.74             | 15.66         |
| <i>Psychology 2000</i>                   | 10             | 352          | 35.20              | 1,081.50         | 108.15            | 35.02         |
| <i>Sociology 2200</i>                    | 6              | 217          | 36.17              | 670.46           | 111.74            | 21.71         |
| <i>Administration of Justice 2100</i>    | 8              | 239          | 29.88              | 765.26           | 95.66             | 24.78         |
| <i>Economics 2200</i>                    | 8              | 250          | 31.25              | 758.78           | 94.85             | 24.57         |
| <i>History 2200</i>                      | 10             | 362          | 36.20              | 1,141.41         | 114.14            | 36.96         |
| <i>Philosophy 1500</i>                   | 4              | 112          | 28.00              | 350.51           | 87.63             | 11.35         |
| <i>Political Science 2200</i>            | 7              | 247          | 35.29              | 760.94           | 108.71            | 24.64         |
| <b>Subtotal</b>                          | <b>67</b>      | <b>2,119</b> | <b>31.63</b>       | <b>6,409.32</b>  | <b>95.66</b>      | <b>207.54</b> |
| <b>GRAND TOTAL</b>                       | <b>155</b>     | <b>4,811</b> | <b>31.04</b>       | <b>16,063.15</b> | <b>103.63</b>     | <b>520.1</b>  |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC

## B. WSCH Growth As Applied to the Future Program of Instruction

### WSCH Projections and the Future Program of Instruction

The following table projects future WSCH and FTES in the benchmark years of 2020, 2025, and 2030. The forecast is in summary form by divisions and disciplines of the College.

Table 35: AVC Lancaster Campus WSCH Projections by Division and Discipline 2014-2030

| Actual                                  |            |                 |              |              |            |            | Projected  |                 |                |                 |              |            |                 |                |                 |              |            |                 |                |                 |              |
|-----------------------------------------|------------|-----------------|--------------|--------------|------------|------------|------------|-----------------|----------------|-----------------|--------------|------------|-----------------|----------------|-----------------|--------------|------------|-----------------|----------------|-----------------|--------------|
| Profile - Fall Semester 2014            |            |                 |              |              |            |            | 2020       |                 |                |                 |              | 2025       |                 |                |                 |              | 2030       |                 |                |                 |              |
| Division                                | # of Sec   | WSCH            | Sec          | FTEs         | Lec Hrs    | Lab Hrs    | # of Sec   | Lec WSCH        | Lab WSCH       | Total WSCH      | FTEs         | # of Sec   | Lec WSCH        | Lab WSCH       | Total WSCH      | FTEs         | # of Sec   | Lec WSCH        | Lab WSCH       | Total WSCH      | FTEs         |
| <b>Career &amp; Technical Education</b> |            |                 |              |              |            |            |            |                 |                |                 |              |            |                 |                |                 |              |            |                 |                |                 |              |
| Accounting                              | 15         | 1,436.0         | 95.7         | 46.5         | 56         | 1          | 15         | 1,584.7         | 25.2           | 1,609.9         | 52.1         | 16         | 1,749.3         | 35.7           | 1,785.0         | 57.8         | 18         | 1,930.9         | 39.4           | 1,970.3         | 63.8         |
| Business                                | 33         | 2,880.4         | 87.3         | 93.3         | 99         | 0          | 29         | 3,243.4         | 0.0            | 3,243.4         | 105.0        | 32         | 3,580.5         | 0.0            | 3,580.5         | 115.9        | 35         | 3,951.9         | 0.0            | 3,951.9         | 128.0        |
| Clothing & Textiles                     | 9          | 635.3           | 70.6         | 20.6         | 24         | 15         | 8          | 443.5           | 271.8          | 715.3           | 23.2         | 9          | 489.6           | 300.1          | 789.7           | 25.6         | 10         | 540.4           | 331.2          | 871.6           | 28.2         |
| Interior Design                         | 9          | 569.5           | 63.3         | 18.4         | 25         | 6          | 9          | 519.4           | 121.8          | 641.2           | 20.8         | 10         | 573.4           | 134.5          | 707.9           | 22.9         | 11         | 632.9           | 148.5          | 781.4           | 25.3         |
| Management                              | 9          | 716.8           | 79.6         | 23.2         | 27         | 0          | 8          | 807.1           | 0.0            | 807.1           | 26.1         | 9          | 891.0           | 0.0            | 891.0           | 28.9         | 10         | 983.4           | 0.0            | 983.4           | 31.8         |
| Marketing                               | 3          | 227.3           | 75.8         | 7.4          | 9          | 0          | 3          | 255.9           | 0.0            | 255.9           | 8.3          | 3          | 282.5           | 0.0            | 282.5           | 9.1          | 3          | 311.9           | 0.0            | 311.9           | 10.1         |
| Real Estate                             | 6          | 559.9           | 93.3         | 18.1         | 18         | 0          | 6          | 630.4           | 0.0            | 630.4           | 20.4         | 7          | 695.9           | 0.0            | 695.9           | 22.5         | 7          | 768.2           | 0.0            | 768.2           | 24.9         |
| Computer Applications                   | 29         | 2,618.5         | 90.3         | 84.8         | 73         | 31         | 30         | 2,063.9         | 884.5          | 2,948.4         | 95.5         | 33         | 2,278.4         | 976.5          | 3,254.9         | 105.4        | 36         | 2,514.7         | 1,077.7        | 3,592.4         | 116.3        |
| Computer Info Sci                       | 12         | 1,010.2         | 84.2         | 32.7         | 28         | 20         | 11         | 659.7           | 477.7          | 1,137.4         | 36.8         | 13         | 728.3           | 527.4          | 1,255.7         | 40.7         | 14         | 803.9           | 582.1          | 1,386.0         | 44.9         |
| Office Technology                       | 11         | 1,104.0         | 100.4        | 35.7         | 36         | 36         | 12         | 621.6           | 621.6          | 1,243.2         | 40.3         | 13         | 686.1           | 686.1          | 1,372.2         | 44.4         | 14         | 757.4           | 757.4          | 1,514.8         | 49.1         |
| Autobody                                | 4          | 911.7           | 227.9        | 29.5         | 12         | 33         | 3          | 277.2           | 749.4          | 1,026.6         | 33.2         | 3          | 306.0           | 827.2          | 1,133.2         | 36.7         | 4          | 337.7           | 913.1          | 1,250.8         | 40.5         |
| Air Cond, Refrig, & Ventilation         | 5          | 1,420.3         | 284.1        | 46.0         | 24         | 36         | 5          | 639.7           | 959.6          | 1,599.3         | 51.8         | 5          | 706.2           | 1,059.2        | 1,765.4         | 57.2         | 6          | 779.4           | 1,169.2        | 1,948.6         | 63.1         |
| Aircraft Fab & Assembly                 | 10         | 1,429.2         | 142.9        | 46.3         | 45         | 15         | 10         | 1,207.0         | 402.3          | 1,609.3         | 52.1         | 12         | 1,332.4         | 444.1          | 1,776.5         | 57.5         | 13         | 1,470.7         | 490.2          | 1,960.9         | 63.5         |
| Automotive Technology                   | 8          | 1,330.7         | 166.3        | 43.1         | 11         | 40         | 9          | 329.7           | 1,168.8        | 1,498.5         | 48.5         | 10         | 363.9           | 1,290.2        | 1,654.1         | 53.6         | 11         | 401.7           | 1,424.1        | 1,825.8         | 59.1         |
| Drafting/Computer Aided Design          | 1          | 168.3           | 168.3        | 5.5          | 2          | 3          | 1          | 75.8            | 113.7          | 189.5           | 6.1          | 2          | 83.7            | 125.5          | 209.2           | 6.8          | 2          | 92.4            | 138.6          | 231.0           | 7.5          |
| Electrical Technology                   | 9          | 1,080.9         | 120.1        | 35.0         | 34         | 18         | 11         | 791.1           | 426.0          | 1,217.1         | 39.4         | 12         | 873.3           | 470.2          | 1,343.5         | 43.5         | 13         | 963.9           | 519.0          | 1,482.9         | 48.0         |
| Electronics Technology                  | 5          | 631.5           | 126.3        | 20.4         | 17         | 9          | 6          | 462.2           | 248.9          | 711.1           | 23.0         | 7          | 510.2           | 274.7          | 784.9           | 25.4         | 8          | 563.2           | 303.3          | 866.5           | 28.1         |
| Engineering                             | 9          | 927.1           | 103.0        | 30.0         | 19         | 27         | 12         | 398.5           | 573.4          | 971.9           | 31.5         | 13         | 472.5           | 679.9          | 1,152.4         | 37.3         | 14         | 521.5           | 750.4          | 1,271.9         | 41.2         |
| Welding                                 | 8          | 818.1           | 102.3        | 26.5         | 21         | 54         | 9          | 259.3           | 666.7          | 926.0           | 30.0         | 10         | 284.7           | 732.2          | 1,016.9         | 32.9         | 11         | 314.3           | 808.2          | 1,122.5         | 36.3         |
| <b>subtotal</b>                         | <b>195</b> | <b>20,475.6</b> | <b>105.0</b> | <b>663.0</b> | <b>580</b> | <b>344</b> | <b>197</b> | <b>15,270.1</b> | <b>7,711.4</b> | <b>22,981.5</b> | <b>744.2</b> | <b>219</b> | <b>16,887.9</b> | <b>8,563.5</b> | <b>25,451.4</b> | <b>824.1</b> | <b>240</b> | <b>18,640.4</b> | <b>9,452.4</b> | <b>28,092.8</b> | <b>909.7</b> |
| <b>Career &amp; Technical Education</b> |            |                 |              |              |            |            |            |                 |                |                 |              |            |                 |                |                 |              |            |                 |                |                 |              |
| <b>Nursing Dept</b>                     |            |                 |              |              |            |            |            |                 |                |                 |              |            |                 |                |                 |              |            |                 |                |                 |              |
| Registering Nursing                     | 36         | 4,033.2         | 112.0        | 130.6        | 79         | 246        | 38         | 1,095.7         | 3,469.5        | 4,565.2         | 147.8        | 41         | 1,203.1         | 3,809.9        | 5,013.0         | 162.3        | 44         | 844.8           | 2,675.2        | 3,520.0         | 114.0        |
| Vocational Nursing                      | 4          | 484.2           | 121.1        | 15.7         | 17         | 14         | 4          | 299.9           | 245.4          | 545.3           | 17.7         | 4          | 331.1           | 270.9          | 602.0           | 19.5         | 4          | 365.4           | 299.0          | 664.4           | 21.5         |
| Emergency Medical Technology            | 4          | 423.1           | 105.8        | 13.7         | 16         | 18         | 5          | 223.9           | 252.5          | 476.4           | 15.4         | 5          | 206.0           | 232.3          | 438.3           | 14.2         | 6          | 272.8           | 307.7          | 580.5           | 18.8         |
| Fire Technology                         | 13         | 1,143.0         | 87.9         | 37.0         | 39         | 10         | 14         | 1,035.1         | 258.8          | 1,293.9         | 41.9         | 15         | 1,136.5         | 284.1          | 1,420.6         | 46.0         | 15         | 1,254.5         | 313.6          | 1,568.1         | 50.8         |
| Medical Assisting                       | 5          | 507.1           | 101.4        | 16.4         | 9          | 12         | 5          | 246.8           | 327.2          | 574.0           | 18.6         | 5          | 271.0           | 359.3          | 630.3           | 20.4         | 5          | 299.2           | 396.6          | 695.8           | 22.5         |
| Nutrition & Foods                       | 10         | 1,072.2         | 107.2        | 34.7         | 27         | 3          | 10         | 1,089.0         | 121.0          | 1,210.0         | 39.2         | 11         | 1,199.5         | 133.3          | 1,332.8         | 43.2         | 11         | 1,324.0         | 147.1          | 1,471.1         | 47.6         |
| Radiologic Technology                   | 2          | 275.8           | 137.9        | 8.9          | 6          | 0          | 2          | 310.5           | 0.0            | 310.5           | 10.1         | 2          | 342.8           | 0.0            | 342.8           | 11.1         | 3          | 378.4           | 0.0            | 378.4           | 12.3         |
| Respiratory Care                        | 5          | 487.3           | 97.5         | 15.8         | 19         | 38         | 5          | 226.3           | 459.6          | 685.9           | 22.2         | 5          | 199.9           | 405.9          | 605.8           | 19.6         | 5          | 220.6           | 448.0          | 668.6           | 21.6         |
| <b>subtotal</b>                         | <b>79</b>  | <b>8,426.0</b>  | <b>106.7</b> | <b>272.8</b> | <b>212</b> | <b>341</b> | <b>83</b>  | <b>4,527.2</b>  | <b>5,134.0</b> | <b>9,661.2</b>  | <b>312.8</b> | <b>88</b>  | <b>4,889.9</b>  | <b>5,495.7</b> | <b>10,385.6</b> | <b>336.3</b> | <b>93</b>  | <b>4,959.7</b>  | <b>4,587.2</b> | <b>9,546.9</b>  | <b>309.1</b> |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC

Table 35: AVC Lancaster Campus WSCH Projections by Division and Discipline 2014-2030 (continued)

| Actual                                            |          |          |       |       |         |         | Projected |          |          |            |       |          |          |          |            |         |          |          |          |            |         |
|---------------------------------------------------|----------|----------|-------|-------|---------|---------|-----------|----------|----------|------------|-------|----------|----------|----------|------------|---------|----------|----------|----------|------------|---------|
| Profile - Fall Semester 2014                      |          |          |       |       |         |         | 2020      |          |          |            | 2025  |          |          |          | 2030       |         |          |          |          |            |         |
| Division                                          | # of Sec | WSCH     | Sec   | FTES  | Lec Hrs | Lab Hrs | # of Sec  | Lec WSCH | Lab WSCH | Total WSCH | FTES  | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES    | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES    |
| Counseling                                        |          |          |       |       |         |         |           |          |          |            |       |          |          |          |            |         |          |          |          |            |         |
| Human Development                                 | 15       | 1101.0   | 73.4  | 35.7  | 36      | 0       | 13        | 1239.7   | 0.0      | 1239.7     | 40.1  | 15       | 1368.5   | 0.0      | 1368.5     | 44.3    | 16       | 1510.6   | 0.0      | 1510.6     | 48.9    |
| subtotal                                          | 15       | 1101.0   | 73.4  | 35.7  | 36      | 0       | 13        | 1239.7   | 0.0      | 1239.7     | 40.1  | 15       | 1368.5   | 0.0      | 1368.5     | 44.3    | 16       | 1510.6   | 0.0      | 1510.6     | 48.9    |
|                                                   |          |          |       |       |         |         |           |          |          |            |       |          |          |          |            |         |          |          |          |            |         |
| Library                                           |          |          |       |       |         |         |           |          |          |            |       |          |          |          |            |         |          |          |          |            |         |
| Library Science                                   | 6        | 291.2    | 48.5  | 9.4   | 13      | 0       | 7         | 327.9    | 0.0      | 327.9      | 10.6  | 7        | 362.0    | 0.0      | 362.0      | 11.7    | 8        | 399.5    | 0.0      | 399.5      | 12.9    |
| subtotal                                          | 6        | 291.2    | 48.5  | 9.4   | 13      | 0       | 7         | 327.9    | 0.0      | 327.9      | 10.6  | 7        | 362.0    | 0.0      | 362.0      | 11.7    | 8        | 399.5    | 0.0      | 399.5      | 12.9    |
|                                                   |          |          |       |       |         |         |           |          |          |            |       |          |          |          |            |         |          |          |          |            |         |
| Division                                          | # of Sec | WSCH     | Sec   | FTES  | Lec Hrs | Lab Hrs | # of Sec  | Lec WSCH | Lab WSCH | Total WSCH | FTES  | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES    | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES    |
| Kinesiology & Athletics, Visual & Performing Arts |          |          |       |       |         |         |           |          |          |            |       |          |          |          |            |         |          |          |          |            |         |
| Athletic Training                                 | 2        | 154.41   | 77.2  | 5.0   | 6       | 12      | 4         | 57.4     | 116.5    | 173.9      | 5.6   | 5        | 63.3     | 128.6    | 191.9      | 6.2     | 6        | 69.9     | 141.9    | 211.8      | 6.9     |
| Dance                                             | 14       | 1,309.7  | 93.6  | 42.4  | 9       | 33      | 14        | 311.3    | 1,171.3  | 1,482.6    | 48.0  | 14       | 341.9    | 1,286.1  | 1,628.0    | 52.7    | 14       | 350.6    | 1,318.9  | 1,669.5    | 54.1    |
| Health Education                                  | 26       | 3,363.4  | 129.4 | 108.9 | 23      | 6       | 26        | 2,991.9  | 795.3    | 3,787.2    | 122.6 | 29       | 3,302.7  | 877.9    | 4,180.6    | 135.4   | 32       | 3,645.6  | 969.1    | 4,614.7    | 149.4   |
| Kinesiology                                       | 64       | 6,115.6  | 95.6  | 198.0 | 15      | 177     | 59        | 550.9    | 6,335.8  | 6,886.7    | 223.0 | 65       | 608.1    | 6,993.6  | 7,601.7    | 246.2   | 72       | 671.3    | 7,719.6  | 8,390.9    | 271.7   |
| Recreational Leadership                           | 1        | 101.9    | 101.9 | 3.3   | 2       | 0       | 1         | 114.8    | 0.0      | 114.8      | 3.7   | 1        | 126.7    | 0.0      | 126.7      | 4.1     | 1        | 139.8    | 0.0      | 139.8      | 4.5     |
| Art                                               | 32       | 3,781.5  | 118.2 | 122.4 | 54      | 84      | 36        | 1,660.7  | 2,597.4  | 4,258.1    | 137.9 | 39       | 1,833.1  | 2,867.2  | 4,700.3    | 152.2   | 43       | 2,023.5  | 3,164.9  | 5,188.4    | 168.0   |
| Digital Media                                     | 46       | 2,692.0  | 58.5  | 87.2  | 58      | 58      | 45        | 1,515.6  | 1,515.6  | 3,031.2    | 98.2  | 50       | 1,673.0  | 1,673.0  | 3,346.0    | 108.3   | 55       | 1,846.6  | 1,846.6  | 3,693.2    | 119.6   |
| Film & Television                                 | 8        | 1,133.7  | 141.7 | 36.7  | 21      | 20      | 9         | 651.0    | 625.5    | 1,276.5    | 41.3  | 10       | 718.7    | 690.5    | 1,409.2    | 45.6    | 11       | 793.3    | 762.1    | 1,555.4    | 50.4    |
| Music                                             | 34       | 2,415.3  | 71.0  | 78.2  | 42      | 38      | 30        | 1,414.1  | 1,305.4  | 2,719.5    | 88.1  | 33       | 1,561.2  | 1,441.1  | 3,002.3    | 97.2    | 38       | 1,723.3  | 1,590.7  | 3,314.0    | 107.3   |
| Music-Commercial                                  | 21       | 1,757.2  | 83.7  | 56.9  | 30      | 30      | 22        | 989.3    | 989.3    | 1,978.6    | 64.1  | 25       | 1,092.1  | 1,092.1  | 2,184.2    | 70.7    | 27       | 1,205.4  | 1,205.4  | 2,410.8    | 78.1    |
| Photography                                       | 3        | 270.5    | 90.2  | 8.8   | 9       | 0       | 3         | 304.6    | 0.0      | 304.6      | 9.9   | 3        | 336.3    | 0.0      | 336.3      | 10.9    | 4        | 370.8    | 0.0      | 370.8      | 12.0    |
| Photography-Commercial                            | 20       | 935.1    | 46.8  | 30.3  | 25      | 20      | 17        | 589.7    | 463.3    | 1,053.0    | 34.1  | 19       | 651.0    | 511.5    | 1,162.5    | 37.6    | 21       | 718.4    | 564.5    | 1,282.9    | 41.5    |
| Theater Arts                                      | 17       | 1,572.2  | 92.5  | 50.9  | 36      | 36      | 15        | 885.2    | 885.2    | 1,770.4    | 57.3  | 17       | 977.2    | 977.2    | 1,954.4    | 63.3    | 19       | 1,078.5  | 1,078.5  | 2,157.0    | 71.9    |
| subtotal                                          | 288      | 25,602.7 | 88.9  | 829.0 | 330     | 514     | 281       | 12,036.5 | 16,800.6 | 28,837.1   | 933.8 | 310      | 13,285.3 | 18,538.8 | 31,824.1   | 1,030.5 | 343      | 14,637.0 | 20,362.2 | 34,999.2   | 1,135.4 |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC

Table 35: AVC Lancaster Campus WSCH Projections by Division and Discipline 2014-2030 (continued)

| Division                                        | Actual                       |                 |              |               |            |            | Projected  |                 |                 |                 |                |            |                 |                 |                 |                |            |                 |                 |                 |                |
|-------------------------------------------------|------------------------------|-----------------|--------------|---------------|------------|------------|------------|-----------------|-----------------|-----------------|----------------|------------|-----------------|-----------------|-----------------|----------------|------------|-----------------|-----------------|-----------------|----------------|
|                                                 | Profile - Fall Semester 2014 |                 |              |               |            |            | 2020       |                 |                 |                 |                | 2025       |                 |                 |                 |                | 2030       |                 |                 |                 |                |
|                                                 | # of Sec                     | WSCH            | Sec          | FTEs          | Lec Hrs    | Lab Hrs    | # of Sec   | Lec WSCH        | Lab WSCH        | Total WSCH      | FTEs           | # of Sec   | Lec WSCH        | Lab WSCH        | Total WSCH      | FTEs           | # of Sec   | Lec WSCH        | Lab WSCH        | Total WSCH      | FTEs           |
| <b>Language Arts &amp; Academic Development</b> |                              |                 |              |               |            |            |            |                 |                 |                 |                |            |                 |                 |                 |                |            |                 |                 |                 |                |
| Learning Assistant Courses                      | 12                           | 71.0            | 5.9          | 2.3           | 9          | 0          | 14         | 80.3            | 0.0             | 80.3            | 2.6            | 16         | 88.0            | 0.0             | 88.0            | 2.9            | 18         | 97.5            | 0.0             | 97.5            | 3.2            |
| Reading                                         | 13                           | 1,418.1         | 109.1        | 45.9          | 27         | 27         | 17         | 798.4           | 798.4           | 1,596.8         | 51.7           | 22         | 881.3           | 881.3           | 1,762.6         | 57.1           | 24         | 972.8           | 972.8           | 1,945.6         | 63.0           |
| Chinese                                         | 1                            | 166.5           | 166.5        | 5.4           | 5          | 0          | 1          | 187.4           | 0.0             | 187.4           | 6.1            | 1          | 206.9           | 0.0             | 206.9           | 6.7            | 1          | 228.4           | 0.0             | 228.4           | 7.4            |
| Communication Studies                           | 32                           | 2,720.1         | 85.0         | 88.1          | 96         | 0          | 32         | 3,062.7         | 0.0             | 3,062.7         | 99.2           | 35         | 3,381.0         | 0.0             | 3,381.0         | 109.5          | 39         | 3,731.9         | 0.0             | 3,731.9         | 120.8          |
| Deaf Studies                                    | 15                           | 1,911.6         | 127.4        | 61.9          | 52         | 40         | 18         | 1,226.9         | 925.5           | 2,152.4         | 69.7           | 20         | 1,354.4         | 1,021.8         | 2,376.2         | 76.9           | 23         | 1,494.9         | 1,127.8         | 2,622.7         | 84.9           |
| English                                         | 113                          | 10,789.1        | 95.5         | 349.4         | 339        | 0          | 119        | 12,148.7        | 0.0             | 12,148.7        | 393.4          | 131        | 13,410.5        | 0.0             | 13,410.5        | 434.2          | 145        | 14,803.1        | 0.0             | 14,803.1        | 479.3          |
| ESL                                             | 18                           | 1,269.6         | 70.5         | 41.1          | 54         | 0          | 17         | 1,429.5         | 0.0             | 1,429.5         | 46.3           | 18         | 1,578.1         | 0.0             | 1,578.1         | 51.1           | 21         | 1,742.0         | 0.0             | 1,742.0         | 56.4           |
| French                                          | 5                            | 660.6           | 132.1        | 21.4          | 25         | 0          | 4          | 743.8           | 0.0             | 743.8           | 24.1           | 4          | 821.1           | 0.0             | 821.1           | 26.6           | 5          | 906.3           | 0.0             | 906.3           | 29.3           |
| German                                          | 3                            | 457.4           | 152.5        | 14.8          | 15         | 0          | 3          | 515.0           | 0.0             | 515.0           | 16.7           | 3          | 568.5           | 0.0             | 568.5           | 18.4           | 3          | 627.5           | 0.0             | 627.5           | 20.3           |
| Interpreter Training                            | 4                            | 403.3           | 100.8        | 13.1          | 3          | 9          | 4          | 113.5           | 340.6           | 454.1           | 14.7           | 4          | 125.3           | 376.0           | 501.3           | 16.2           | 5          | 138.3           | 415.0           | 553.3           | 17.9           |
| Journalism                                      | 1                            | 60.5            | 60.5         | 2.0           | 0          | 6          | 1          | 0.0             | 68.2            | 68.2            | 2.2            | 1          | 0.0             | 75.2            | 75.2            | 2.4            | 1          | 0.0             | 83.1            | 83.1            | 2.7            |
| Latin                                           | 1                            | 88.3            | 88.3         | 2.9           | 5          | 0          | 1          | 99.5            | 0.0             | 99.5            | 3.2            | 1          | 109.8           | 0.0             | 109.8           | 3.6            | 1          | 121.2           | 0.0             | 121.2           | 3.9            |
| Spanish                                         | 15                           | 2,163.6         | 144.2        | 70.1          | 75         | 0          | 13         | 2,436.2         | 0.0             | 2,436.2         | 78.9           | 15         | 2,689.4         | 0.0             | 2,689.4         | 87.1           | 16         | 2,968.5         | 0.0             | 2,968.5         | 96.1           |
| <b>subtotal</b>                                 | <b>233</b>                   | <b>22,179.8</b> | <b>95.2</b>  | <b>718.2</b>  | <b>705</b> | <b>82</b>  | <b>244</b> | <b>22,841.9</b> | <b>2,132.7</b>  | <b>24,974.6</b> | <b>808.7</b>   | <b>271</b> | <b>25,214.3</b> | <b>2,354.3</b>  | <b>27,568.6</b> | <b>892.7</b>   | <b>302</b> | <b>27,832.4</b> | <b>2,598.7</b>  | <b>30,431.1</b> | <b>985.4</b>   |
| <b>Math &amp; Science</b>                       |                              |                 |              |               |            |            |            |                 |                 |                 |                |            |                 |                 |                 |                |            |                 |                 |                 |                |
| Mathematics                                     | 138                          | 19,747.4        | 143.1        | 639.4         | 424        | 32         | 126        | 20,678.8        | 1,556.5         | 22,235.3        | 720.0          | 139        | 22,827.8        | 1,718.2         | 24,546.0        | 794.8          | 153        | 25,196.7        | 1,895.5         | 27,092.2        | 877.3          |
| Agriculture/Park & Land Management              | 5                            | 459.8           | 92.0         | 14.9          | 8          | 19         | 5          | 155.3           | 362.5           | 517.8           | 16.8           | 6          | 171.5           | 400.1           | 571.6           | 18.5           | 6          | 189.3           | 441.6           | 630.9           | 20.4           |
| Astronomy                                       | 5                            | 469.1           | 93.8         | 15.2          | 12         | 3          | 4          | 422.6           | 105.6           | 528.2           | 17.1           | 5          | 466.5           | 116.6           | 583.1           | 18.9           | 5          | 514.9           | 128.7           | 643.6           | 20.8           |
| Biology                                         | 74                           | 10,066.7        | 136.0        | 326.0         | 122        | 237        | 82         | 3,853.9         | 7,481.5         | 11,335.4        | 367.1          | 91         | 4,254.3         | 8,258.3         | 12,512.6        | 405.2          | 100        | 4,696.1         | 9,115.9         | 13,812.0        | 447.2          |
| Chemistry                                       | 26                           | 4,671.6         | 179.7        | 151.3         | 87         | 93         | 29         | 2,538.3         | 2,749.8         | 5,288.1         | 171.2          | 32         | 2,787.2         | 3,019.5         | 5,806.7         | 188.0          | 35         | 3,076.6         | 3,333.0         | 6,409.6         | 207.5          |
| Earth Science                                   | 1                            | 160.0           | 160.0        | 5.2           | 3          | 3          | 1          | 90.5            | 90.5            | 181.0           | 5.9            | 1          | 99.4            | 99.4            | 198.8           | 6.4            | 1          | 109.7           | 109.7           | 219.4           | 7.1            |
| Geography/GIS                                   | 11                           | 1,259.4         | 114.5        | 40.8          | 24         | 9          | 11         | 1,040.7         | 384.9           | 1,425.6         | 46.2           | 12         | 1,142.7         | 422.7           | 1,565.4         | 50.7           | 13         | 1,261.3         | 466.5           | 1,727.8         | 55.9           |
| Geology                                         | 4                            | 412.9           | 103.2        | 13.4          | 3          | 9          | 6          | 116.9           | 350.6           | 467.5           | 15.1           | 7          | 128.3           | 384.9           | 513.2           | 16.6           | 7          | 141.6           | 424.9           | 566.5           | 18.3           |
| Physics                                         | 8                            | 1,252.6         | 156.6        | 40.6          | 30         | 24         | 8          | 794.0           | 623.9           | 1,417.9         | 45.9           | 9          | 871.9           | 685.1           | 1,557.0         | 50.4           | 10         | 962.4           | 756.2           | 1,718.6         | 55.6           |
| Physical Science                                | 3                            | 435.1           | 145.0        | 14.1          | 9          | 9          | 3          | 246.3           | 246.3           | 492.6           | 16.0           | 3          | 270.4           | 270.4           | 540.8           | 17.5           | 4          | 298.5           | 298.5           | 597.0           | 19.3           |
| Water Treatment                                 | 2                            | 156.6           | 78.3         | 5.1           | 6          | 6          | 2          | 88.6            | 88.6            | 177.2           | 5.7            | 2          | 97.3            | 97.3            | 194.6           | 6.3            | 3          | 107.4           | 107.4           | 214.8           | 7.0            |
| <b>subtotal</b>                                 | <b>277</b>                   | <b>39,091.2</b> | <b>141.1</b> | <b>1265.8</b> | <b>728</b> | <b>444</b> | <b>277</b> | <b>30,025.9</b> | <b>14,040.7</b> | <b>44,066.6</b> | <b>1,426.9</b> | <b>307</b> | <b>33,117.3</b> | <b>15,472.5</b> | <b>48,589.8</b> | <b>1,573.4</b> | <b>337</b> | <b>36,554.5</b> | <b>17,077.9</b> | <b>53,632.4</b> | <b>1,736.7</b> |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC

Table 35: AVC Lancaster Campus WSCH Projections by Division and Discipline 2014-2030 (continued)

| Actual                       |          |          |       |       |         |         | Projected |          |          |            |       |          |          |          |            |         |          |          |          |            |         |       |       |         |        |         |       |
|------------------------------|----------|----------|-------|-------|---------|---------|-----------|----------|----------|------------|-------|----------|----------|----------|------------|---------|----------|----------|----------|------------|---------|-------|-------|---------|--------|---------|-------|
| Profile - Fall Semester 2014 |          |          |       |       |         |         | 2020      |          | 2025     |            | 2030  |          |          |          |            |         |          |          |          |            |         |       |       |         |        |         |       |
| Division                     | # of Sec | WSCH     | Sec   | FTES  | Lec Hrs | Lab Hrs | # of Sec  | Lec WSCH | Lab WSCH | Total WSCH | FTES  | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES    | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES    |       |       |         |        |         |       |
| Social & Behavioral Sciences |          |          |       |       |         |         |           |          |          |            |       |          |          |          |            |         |          |          |          |            |         |       |       |         |        |         |       |
| Anthropology                 | 7        | 853.9    | 122.0 | 27.7  | 18      | 3       | 7         | 826.9    | 134.6    | 961.5      | 31.1  | 8        | 912.8    | 148.6    | 1,061.4    | 34.37   | 9        | 1,007.5  | 164.0    | 1,171.5    | 37.9    |       |       |         |        |         |       |
| Child & Family Education     | 17       | 1,454.9  | 85.6  | 47.1  | 45      | 12      | 16        | 1,294.2  | 344.0    | 1,638.2    | 53.0  | 18       | 1,428.7  | 379.8    | 1,808.5    | 58.56   | 20       | 1,576.8  | 419.2    | 1,996.0    | 64.6    |       |       |         |        |         |       |
| Psychology                   | 22       | 3,733.7  | 169.7 | 120.9 | 66      | 0       | 33        | 4,204.2  | 0.0      | 4,204.2    | 136.1 | 36       | 4,641.1  | 0.0      | 4,641.1    | 150.28  | 40       | 5,122.8  | 0.0      | 5,122.8    | 165.9   |       |       |         |        |         |       |
| Sociology                    | 21       | 2,845.5  | 135.5 | 92.1  | 63      | 0       | 25        | 3,204.0  | 0.0      | 3,204.0    | 103.7 | 27       | 3,537.0  | 0.0      | 3,537.0    | 114.53  | 30       | 3,903.9  | 0.0      | 3,903.9    | 126.4   |       |       |         |        |         |       |
| Administration of Justice    | 37       | 3,780.0  | 102.2 | 122.4 | 111     | 0       | 33        | 4,256.3  | 0.0      | 4,256.3    | 137.8 | 37       | 4,698.6  | 0.0      | 4,698.6    | 152.15  | 40       | 5,186.0  | 0.0      | 5,186.0    | 167.9   |       |       |         |        |         |       |
| Economics                    | 4        | 412.9    | 103.2 | 13.4  | 12      | 0       | 3         | 464.9    | 0.0      | 464.9      | 15.1  | 4        | 513.2    | 0.0      | 513.2      | 16.62   | 4        | 566.5    | 0.0      | 566.5      | 18.3    |       |       |         |        |         |       |
| Education                    | 4        | 380.8    | 95.2  | 12.3  | 12      | 0       | 3         | 426.8    | 0.0      | 426.8      | 13.8  | 4        | 473.3    | 0.0      | 473.3      | 15.33   | 4        | 522.4    | 0.0      | 522.4      | 16.9    |       |       |         |        |         |       |
| History                      | 40       | 5,094.4  | 127.4 | 165.0 | 120     | 0       | 45        | 5,736.2  | 0.0      | 5,736.2    | 185.7 | 49       | 6,332.3  | 0.0      | 6,332.3    | 205.05  | 54       | 6,989.2  | 0.0      | 6,989.2    | 226.3   |       |       |         |        |         |       |
| Philosophy                   | 28       | 2,993.7  | 106.9 | 96.9  | 84      | 0       | 30        | 3,370.8  | 0.0      | 3,370.8    | 109.1 | 33       | 3,721.1  | 0.0      | 3,721.1    | 120.49  | 38       | 4,107.4  | 0.0      | 4,107.4    | 133.0   |       |       |         |        |         |       |
| Political Science            | 18       | 2,895.5  | 160.9 | 93.8  | 54      | 0       | 25        | 3,260.3  | 0.0      | 3,260.3    | 105.6 | 28       | 3,599.1  | 0.0      | 3,599.1    | 116.54  | 31       | 3,972.7  | 0.0      | 3,972.7    | 128.6   |       |       |         |        |         |       |
| subtotal                     | 198      | 24,445.3 | 123.5 | 791.6 | 585     | 15      | 220       | 27,044.6 | 478.6    | 27,523.2   | 891.2 | 244      | 29,857.2 | 528.4    | 30,385.6   | 983.91  | 270      | 32,955.2 | 583.2    | 33,538.4   | 1,086.0 |       |       |         |        |         |       |
| Grand Totals                 |          |          |       |       |         |         | 1,291     | 141,613  | 109.69   | 4,586      | 3,189 | 1,740    | 1,322    | 113,314  | 46,298     | 159,612 | 5,168    | 1,461    | 124,982  | 50,953     | 175,936 | 5,697 | 1,609 | 137,489 | 54,662 | 192,151 | 6,224 |
|                              |          |          |       |       |         |         |           |          |          |            |       |          |          |          |            |         |          |          |          |            |         |       |       |         |        |         |       |
| Division                     | # of Sec | WSCH     | Sec   | FTES  | Lec Hrs | Lab Hrs | # of Sec  | Lec WSCH | Lab WSCH | Total WSCH | FTES  | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES    | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES    |       |       |         |        |         |       |
| Off Campus Sections          |          |          |       |       |         |         |           |          |          |            |       |          |          |          |            |         |          |          |          |            |         |       |       |         |        |         |       |
| Fire Technology              | 1        | 242.1    | 242.1 | 7.8   |         |         | 1         |          |          | 271.1      | 8.8   | 1        |          |          | 300.0      | 9.7     | 1        |          |          | 332.2      | 10.7    |       |       |         |        |         |       |
| Aircraft Fab & Assembly      | 2        | 1,298.3  | 649.1 | 42.0  |         |         | 2         |          |          | 1,456.6    | 47.0  | 2        |          |          | 1,524.9    | 52.1    | 2        |          |          | 1,781.3    | 57.6    |       |       |         |        |         |       |
| English                      | 1        | 99.1     | 99.1  | 3.2   |         |         | 1         |          |          | 111.1      | 3.6   | 1        |          |          | 122.7      | 4.0     | 2        |          |          | 135.0      | 4.4     |       |       |         |        |         |       |
| History                      | 1        | 102.5    | 102.5 | 3.3   |         |         | 1         |          |          | 115.0      | 3.7   | 1        |          |          | 127.1      | 4.1     | 1        |          |          | 140.6      | 4.5     |       |       |         |        |         |       |
| subtotal                     | 5        | 1,742.1  | 348.4 | 56.4  | 0       | 0       | 5         | 0.0      | 0.0      | 1,953.8    | 63.0  | 5        | 0.0      | 0.0      | 2,074.7    | 69.8    | 6        | 0.0      | 0.0      | 2,389.1    | 77.2    |       |       |         |        |         |       |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC

Table 36: AVC Palmdale Center WSCH Projections by Division and Discipline 2014-2030

| Actual                                            |          |       |       |      |         |         | Projected |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
|---------------------------------------------------|----------|-------|-------|------|---------|---------|-----------|----------|----------|------------|------|----------|----------|----------|------------|------|----------|----------|----------|------------|------|
| Profile - Fall Semester 2014                      |          |       |       |      |         |         | 2020      |          | 2025     |            |      |          | 2030     |          |            |      |          |          |          |            |      |
| Division                                          | # of Sec | WSCH  | Sec   | FTES | Lec Hrs | Lab Hrs | # of Sec  | Lec WSCH | Lab WSCH | Total WSCH | FTES | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES |
| Career & Technical Education                      |          |       |       |      |         |         |           |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
| Accounting                                        | 1        | 83.1  | 83.1  | 2.7  | 3       | 0       | 1         | 92.7     | 0.0      | 92.7       | 3.0  | 1        | 102.4    | 0.0      | 102.4      | 3.3  | 1        | 113.1    | 0.0      | 113.1      | 3.7  |
| Business                                          | 4        | 310.4 | 77.6  | 10.1 | 12      | 0       | 3         | 346.4    | 0.0      | 346.4      | 11.2 | 3        | 382.4    | 0.0      | 382.4      | 12.4 | 4        | 422.4    | 0.0      | 422.4      | 13.7 |
| Computer Applications                             | 3        | 264.7 | 88.2  | 8.6  | 5       | 3       | 3         | 186.1    | 112.2    | 298.3      | 9.7  | 3        | 205.4    | 123.9    | 329.3      | 10.7 | 3        | 226.9    | 136.9    | 363.8      | 11.8 |
| Computer Info Sci                                 | 1        | 88.3  | 88.3  | 2.9  | 3       | 2       | 1         | 62.1     | 37.5     | 99.6       | 3.2  | 1        | 68.6     | 41.3     | 109.9      | 3.6  | 1        | 75.7     | 45.7     | 121.4      | 3.9  |
| subtotal                                          | 9        | 746.5 | 82.9  | 24.2 | 23      | 5       | 8         | 687.3    | 149.7    | 837.0      | 27.1 | 8        | 758.8    | 165.2    | 924.0      | 29.9 | 9        | 838.1    | 182.6    | 1,020.7    | 33.1 |
|                                                   |          |       |       |      |         |         |           |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
| Division                                          | # of Sec | WSCH  | Sec   | FTES | Lec Hrs | Lab Hrs | # of Sec  | Lec WSCH | Lab WSCH | Total WSCH | FTES | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES |
| Career & Technical Education                      |          |       |       |      |         |         |           |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
| Nursing Dept.                                     |          |       |       |      |         |         |           |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
| Medical Assisting                                 | 2        | 202.9 | 101.5 | 6.6  | 3       | 0       | 3         | 226.4    | 0.0      | 226.4      | 7.3  | 3        | 250.0    | 0.0      | 250.0      | 8.1  | 3        | 276.2    | 0.0      | 276.2      | 8.9  |
| Nutrition & Foods                                 | 6        | 596.7 | 99.4  | 19.3 | 9       | 0       | 5         | 665.9    | 0.0      | 665.9      | 21.6 | 6        | 735.1    | 0.0      | 735.1      | 23.8 | 7        | 812.1    | 0.0      | 812.1      | 26.3 |
| subtotal                                          | 8        | 799.6 | 99.9  | 25.9 | 12      | 0       | 8         | 892.3    | 0.0      | 892.3      | 28.9 | 9        | 985.1    | 0.0      | 985.1      | 31.9 | 10       | 1,088.3  | 0.0      | 1,088.3    | 35.2 |
|                                                   |          |       |       |      |         |         |           |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
| Division                                          | # of Sec | WSCH  | Sec   | FTES | Lec Hrs | Lab Hrs | # of Sec  | Lec WSCH | Lab WSCH | Total WSCH | FTES | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES |
| Counseling                                        |          |       |       |      |         |         |           |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
| Human Development                                 | 1        | 131.3 | 131.3 | 4.3  | 3       | 0       | 1         | 146.5    | 0.0      | 146.5      | 4.7  | 1        | 161.7    | 0.0      | 161.7      | 5.2  | 2        | 178.6    | 0.0      | 178.6      | 5.8  |
| subtotal                                          | 1        | 131.3 | 131.3 | 4.3  | 3       | 0       | 1         | 146.5    | 0.0      | 146.5      | 4.7  | 1        | 161.7    | 0.0      | 161.7      | 5.2  | 2        | 178.6    | 0.0      | 178.6      | 5.8  |
|                                                   |          |       |       |      |         |         |           |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
| Division                                          | # of Sec | WSCH  | Sec   | FTES | Lec Hrs | Lab Hrs | # of Sec  | Lec WSCH | Lab WSCH | Total WSCH | FTES | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES |
| Library                                           |          |       |       |      |         |         |           |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
| Library Science                                   | 1        | 9.0   | 9.0   | 0.3  | 3       | 0       | 1         | 10.1     | 0.0      | 10.1       | 0.3  | 1        | 11.0     | 0.0      | 11.0       | 0.4  | 1        | 12.2     | 0.0      | 12.2       | 0.4  |
| subtotal                                          | 1        | 9.0   | 9.0   | 0.3  | 3       | 0       | 1         | 10.1     | 0.0      | 10.1       | 0.3  | 1        | 11.0     | 0.0      | 11.0       | 0.4  | 1        | 12.2     | 0.0      | 12.2       | 0.4  |
|                                                   |          |       |       |      |         |         |           |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
| Division                                          | # of Sec | WSCH  | Sec   | FTES | Lec Hrs | Lab Hrs | # of Sec  | Lec WSCH | Lab WSCH | Total WSCH | FTES | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES | # of Sec | Lec WSCH | Lab WSCH | Total WSCH | FTES |
| Kinesiology & Athletics, Visual & Performing Arts |          |       |       |      |         |         |           |          |          |            |      |          |          |          |            |      |          |          |          |            |      |
| Health Education                                  | 4        | 444.7 | 111.2 | 14.4 | 12      | 0       | 4         | 496.3    | 0.0      | 496.3      | 16.1 | 4        | 547.9    | 0.0      | 547.9      | 17.7 | 5        | 605.3    | 0.0      | 605.3      | 19.6 |
| Kinesiology                                       | 2        | 153.5 | 76.7  | 5.0  | 0       | 6       | 2         | 0.0      | 171.3    | 171.3      | 5.5  | 2        | 0.0      | 189.1    | 189.1      | 6.1  | 2        | 0.0      | 208.9    | 208.9      | 6.8  |
| Art                                               | 1        | 70.4  | 70.4  | 2.3  | 3       | 0       | 1         | 78.6     | 0.0      | 78.6       | 2.5  | 1        | 86.8     | 0.0      | 86.8       | 2.8  | 2        | 76.7     | 19.2     | 95.9       | 3.1  |
| subtotal                                          | 7        | 668.6 | 95.5  | 21.7 | 15      | 6       | 7         | 574.9    | 171.3    | 746.2      | 24.2 | 7        | 634.7    | 189.1    | 823.8      | 26.7 | 9        | 682.0    | 228.1    | 910.1      | 29.5 |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC

Table 36: AVC Palmdale Center WSCH Projections by Division and Discipline 2014-2030 (continued)

| Actual                                          |            |                |               |              |            |           | Projected  |                |              |                |              |            |                |              |                |              |            |                |              |                |              |
|-------------------------------------------------|------------|----------------|---------------|--------------|------------|-----------|------------|----------------|--------------|----------------|--------------|------------|----------------|--------------|----------------|--------------|------------|----------------|--------------|----------------|--------------|
| Profile - Fall Semester 2014                    |            |                |               |              |            |           | 2020       |                |              |                |              | 2025       |                |              |                |              | 2030       |                |              |                |              |
| Division                                        | # of Sec   | WSCH           | Sec           | FTES         | Lec Hrs    | Lab Hrs   | # of Sec   | Lec WSCH       | Lab WSCH     | Total WSCH     | FTES         | # of Sec   | Lec WSCH       | Lab WSCH     | Total WSCH     | FTES         | # of Sec   | Lec WSCH       | Lab WSCH     | Total WSCH     | FTES         |
| <b>Language Arts &amp; Academic Development</b> |            |                |               |              |            |           |            |                |              |                |              |            |                |              |                |              |            |                |              |                |              |
| Reading                                         | 3          | 227.0          | 75.7          | 7.4          | 5          | 5         | 3          | 126.7          | 126.7        | 253.4          | 8.2          | 3          | 139.9          | 139.8        | 279.7          | 9.1          | 4          | 154.5          | 154.5        | 309.0          | 10.0         |
| Communication Studies                           | 13         | 1,097.6        | 84.4          | 35.5         | 39         | 0         | 13         | 1,224.9        | 0.0          | 1,224.9        | 39.7         | 14         | 1,352.3        | 0.0          | 1,352.3        | 43.8         | 16         | 1,493.8        | 0.0          | 1,493.8        | 48.4         |
| Deaf Studies                                    | 1          | 156.0          | 156.0         | 5.1          | 4          | 2         | 1          | 121.8          | 52.2         | 174.0          | 5.6          | 2          | 134.5          | 57.6         | 192.1          | 6.2          | 2          | 148.6          | 63.7         | 212.3          | 6.9          |
| English                                         | 13         | 1,421.8        | 109.4         | 46.0         | 39         | 0         | 15         | 1,586.7        | 0.0          | 1,586.7        | 51.4         | 17         | 1,751.7        | 0.0          | 1,751.7        | 56.7         | 19         | 1,935.2        | 0.0          | 1,935.2        | 62.7         |
| ESL                                             | 4          | 363.8          | 91.0          | 11.8         | 12         | 0         | 4          | 406.0          | 0.0          | 406.0          | 13.1         | 4          | 448.3          | 0.0          | 448.3          | 14.5         | 5          | 495.1          | 0.0          | 495.1          | 16.0         |
| <b>subtotal</b>                                 | <b>34</b>  | <b>3,266.1</b> | <b>96.1</b>   | <b>105.8</b> | <b>98</b>  | <b>6</b>  | <b>36</b>  | <b>3,466.1</b> | <b>178.9</b> | <b>3,645.0</b> | <b>118.0</b> | <b>40</b>  | <b>3,826.7</b> | <b>197.4</b> | <b>4,024.1</b> | <b>130.3</b> | <b>46</b>  | <b>4,227.2</b> | <b>218.2</b> | <b>4,445.4</b> | <b>143.9</b> |
| <b>Math &amp; Science</b>                       |            |                |               |              |            |           |            |                |              |                |              |            |                |              |                |              |            |                |              |                |              |
| Mathematics                                     | 17         | 2,823.9        | 166.1         | 91.4         | 68         | 0         | 19         | 2,991.0        | 0.0          | 2,991.0        | 96.9         | 21         | 3,483.3        | 0.0          | 3,483.3        | 112.8        | 23         | 3,843.0        | 0.0          | 3,843.0        | 124.4        |
| Astronomy                                       |            |                |               |              |            |           | 1          | 125.6          | 0.0          | 125.6          | 4.1          | 2          | 211.4          | 0.0          | 211.4          | 6.8          | 2          | 272.0          | 0.0          | 272.0          | 8.8          |
| Chemistry                                       |            |                |               |              |            |           | 2          | 124.5          | 124.5        | 249.0          | 8.1          | 4          | 261.8          | 261.9        | 523.7          | 17.0         | 4          | 244.0          | 244.0        | 488.0          | 15.8         |
| Physics                                         |            |                |               |              |            |           | 2          | 124.5          | 124.5        | 249.0          | 8.1          | 3          | 204.3          | 204.3        | 408.6          | 13.2         | 3          | 211.5          | 211.5        | 423.0          | 13.7         |
| Biology                                         | 3          | 429.0          | 143.0         | 13.9         | 9          | 9         | 4          | 199.2          | 199.2        | 398.4          | 12.9         | 5          | 264.2          | 264.2        | 528.4          | 17.1         | 5          | 297.0          | 297.0        | 594.0          | 19.2         |
| Geography/GIS                                   | 5          | 425.3          | 85.1          | 13.8         | 12         | 3         | 4          | 316.7          | 79.7         | 396.4          | 12.8         | 4          | 419.1          | 104.8        | 523.9          | 17.0         | 5          | 462.9          | 115.7        | 578.6          | 18.7         |
| Geology                                         | 2          | 239.7          | 119.8         | 7.8          | 6          | 0         | 4          | 267.4          | 0.0          | 267.4          | 8.7          | 4          | 295.2          | 0.0          | 295.2          | 9.6          | 4          | 326.2          | 0.0          | 326.2          | 10.6         |
| Physical Science                                | 1          | 115.2          | 115.2         | 3.7          | 3          | 3         | 1          | 64.3           | 64.3         | 128.6          | 4.2          | 1          | 71.0           | 71.0         | 142.0          | 4.6          | 1          | 78.4           | 78.4         | 156.8          | 5.1          |
| <b>subtotal</b>                                 | <b>28</b>  | <b>4,033.0</b> | <b>144.0</b>  | <b>130.6</b> | <b>98</b>  | <b>15</b> | <b>37</b>  | <b>4,213.2</b> | <b>592.2</b> | <b>4,805.4</b> | <b>155.6</b> | <b>44</b>  | <b>5,210.3</b> | <b>906.2</b> | <b>6,116.5</b> | <b>198.1</b> | <b>47</b>  | <b>5,735.0</b> | <b>946.6</b> | <b>6,681.6</b> | <b>216.4</b> |
| <b>Social &amp; Behavioral Sciences</b>         |            |                |               |              |            |           |            |                |              |                |              |            |                |              |                |              |            |                |              |                |              |
| Child & Family Education                        | 5          | 396.8          | 79.4          | 12.9         | 15         | 0         | 5          | 349.9          | 93.0         | 442.9          | 14.3         | 5          | 386.2          | 102.7        | 488.9          | 15.8         | 6          | 426.7          | 113.4        | 540.1          | 17.5         |
| Child Dev. Ctr.                                 | 9          | 483.6          | 68.4          | 15.7         | 18         | 0         | 10         | 575.5          | 0.0          | 575.0          | 18.6         | 10         | 666.2          | 0.0          | 666.2          | 21.6         | 10         | 658.2          | 0.0          | 658.2          | 21.3         |
| Psychology                                      | 10         | 1,081.5        | 108.2         | 35.0         | 18         | 0         | 10         | 1,207.0        | 0.0          | 1,207.0        | 39.1         | 11         | 1,332.4        | 0.0          | 1,332.4        | 43.1         | 12         | 1,471.9        | 0.0          | 1,471.9        | 47.7         |
| Sociology                                       | 6          | 670.5          | 111.7         | 21.7         | 18         | 0         | 6          | 748.2          | 0.0          | 748.2          | 24.2         | 7          | 826.0          | 0.0          | 826.0          | 26.7         | 7          | 912.5          | 0.0          | 912.5          | 29.5         |
| Administration of Justice                       | 8          | 765.3          | 95.7          | 24.8         | 24         | 0         | 7          | 854.1          | 0.0          | 854.1          | 27.7         | 7          | 942.8          | 0.0          | 942.8          | 30.5         | 8          | 1,041.5        | 0.0          | 1,041.5        | 33.7         |
| Economics                                       | 8          | 758.8          | 94.8          | 24.6         | 24         | 0         | 7          | 846.8          | 0.0          | 846.8          | 27.4         | 8          | 934.9          | 0.0          | 934.9          | 30.3         | 9          | 1,032.7        | 0.0          | 1,032.7        | 33.4         |
| History                                         | 10         | 1,141.4        | 114.1         | 37.0         | 30         | 0         | 10         | 1,273.8        | 0.0          | 1,273.8        | 41.2         | 11         | 1,405.2        | 0.0          | 1,405.2        | 45.5         | 12         | 1,553.5        | 0.0          | 1,553.5        | 50.3         |
| Philosophy                                      | 4          | 350.5          | 87.6          | 11.3         | 12         | 0         | 4          | 391.2          | 0.0          | 391.2          | 12.7         | 4          | 431.8          | 0.0          | 431.8          | 14.0         | 4          | 477.0          | 0.0          | 477.0          | 15.4         |
| Political Science                               | 7          | 760.9          | 108.7         | 24.6         | 21         | 0         | 7          | 849.2          | 0.0          | 849.2          | 27.5         | 8          | 937.4          | 0.0          | 937.4          | 30.4         | 8          | 1,035.7        | 0.0          | 1,035.7        | 33.5         |
| <b>subtotal</b>                                 | <b>67</b>  | <b>6,409.3</b> | <b>95.7</b>   | <b>207.5</b> | <b>180</b> | <b>0</b>  | <b>66</b>  | <b>7,095.7</b> | <b>93.0</b>  | <b>7,188.2</b> | <b>232.8</b> | <b>71</b>  | <b>7,862.9</b> | <b>102.7</b> | <b>7,965.6</b> | <b>257.9</b> | <b>76</b>  | <b>8,609.7</b> | <b>113.4</b> | <b>8,723.1</b> | <b>282.5</b> |
| <b>Grand Totals</b>                             |            |                |               |              |            |           |            |                |              |                |              |            |                |              |                |              |            |                |              |                |              |
|                                                 | <b>155</b> | <b>16,063</b>  | <b>103.63</b> | <b>520</b>   | <b>432</b> | <b>32</b> | <b>164</b> | <b>17,086</b>  | <b>1,185</b> | <b>18,282</b>  | <b>592</b>   | <b>181</b> | <b>19,451</b>  | <b>1,561</b> | <b>21,012</b>  | <b>680</b>   | <b>200</b> | <b>21,371</b>  | <b>1,689</b> | <b>23,060</b>  | <b>747</b>   |

Source: Antelope Valley College, Information Technology Office; analysis by Cambridge West Partnership, LLC

### Space Projections

State standards for construction and renovation of facilities basically focus on capacity. Capacity, as discussed 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. This WSCH is then transformed into instructional space or assignable square feet (ASF). Each WSCH type, lecture vs. laboratory, generates an “appropriate” instructional facility space addressed as ASF. While these calculations are established through State standards, other factors are considered in planning facilities. An additional factor in all facility planning is adequacy. Adequacy in this context considers both sufficient and suitable capacity to provide for an effective learning environment.

As assessment of the current facilities includes estimating the capacity of the facilities to meet instructional programmatic needs, reviewing the condition of facilities, and addressing the facilities’ adequacy to provide for an effective learning environment. The WSCH and space 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 in time. The most important intended 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.

Space planning is focused on a very detailed assessment of current and anticipated space needs for growth. It provides a plan for facilities that may better serve the instructional and support services programs at the College and therefore is an opportunity for overall improvement of services at the College.



Applied Arts Building



## Appendix A: Acknowledgments

The planning process relied heavily on interviews and input provided by groups and individuals associated with the academic programs and student support services of the College. The results and findings from these inputs provided the foundation upon which the EMP was constructed. The following groups and individuals contributed to this document.

### *President's Cabinet*

Edward Knudson, Superintendent/President  
Bonnie Suderman, Vice President Academic Affairs  
Erin Vines, Vice President Student Services  
Richard Shaw, Executive Director Information Technology  
Douglas Jensen, Executive Director- Facilities Services, Campus Events, Facilities Planning & Campus Development, Grounds, Maintenance, Transportation  
Mark Bryant, Vice President Human Resources and Employee Relations  
Diana Keelen, Executive Director Business Services  
Meeta Goel, Dean Institutional Effectiveness, Research, and Planning  
Elizabeth Diachun, Executive Director Marketing and Public Information

### *Budget and Planning Committee*

Meeta Goel, Dean Institutional Effectiveness, Research, and Planning (co-chair)  
Edward Beyer, Academic Senate President (co-chair)  
Carolyn Burrell  
Michael Dioquino  
Wendy Dumas  
Kim Fite  
Violet Christopher  
Suzanne Olson  
Jenell Paul  
Leslie Uhazy  
Jamie Jones  
Liette Bohler  
David Adams  
Elizabeth Diachun  
Doug Jensen  
LaDonna Trimble  
Jerene Kelley

*Student Services Interviews/Questionnaire Respondents*

Erin E. Vines, Vice President for Student Services  
Francisco (Franky) Curiel, Director EOP&S  
Louis Lucero, Director DSPS  
Michelle Hernandez, Director, Student Activities & Community Outreach  
Gary A. Roggenstein Dean, Counseling & Matriculation  
Timothy Wiley, Director CalWORKS  
Nichelle Williams, Director Financial Aid  
Jill Zimmerman, Dean Student Development and Services  
Ann Steinberg, Director Job Placement Center  
LaDonna Trimble, Dean Enrollment Services

*Faculty and Staff Interviews/Questionnaire Respondents*

Newton Chelette, Academic Dean- Kinesiology, Athletics & Dance  
Janet Leighton, Theater Arts  
David Newby, Music  
Glenn Haller Kinesiology and Athletics  
Lisa Karlstein, Visual Arts Chair

*Karen Cowell, Academic Dean- Career and Technical Education/Health Sciences*  
*Rick Motawakel, Interim Academic Dean- Career and Technical Education: Business and Computer Science*  
Stacey Adams, Accounting  
Jimmie Bowen, Computer Information Science  
Deborah Sullivan-Ford, Office Technology

*Rick Motawakel, Interim Academic Dean- Career and Technical Education: Industrial Technology*  
Jack Halliday, Aeronautics (AERO)  
Tyrone Mettler, Aeronautics (AERO)  
Gary Wheeler, Welding  
Marie Clinton, Aeronautics Fabrication  
Michael Hutchinson, Fire Technology

*Rick Motawakel, Interim Academic Dean- Career and Technical Education: Nursing, Allied Health, Public Safety*  
Annette Jones, Licensed Vocational Nursing  
Yesinia Cota, Nursing  
Laurie Denise Walker, Nursing  
Victoria Beatty, Nursing  
Wendy Hardy, Nursing  
Casey Scudmore, Nursing  
Debra Dickerson, Nursing  
Susan Snyder, Nursing  
Candace Martin, Nursing

*Rick Motawakel, Interim Academic Dean- Career and Technical Education: Nursing, Allied Health, Public Safety (continued)*

Bonnell Curry, Nursing

Jeffrey Stephens, Respiratory Care, Radiological Technology, EMT

Elizabeth Sundberg, Director of Nursing

Sandra Robinson, Nursing

*Charlotte Forte-Parnell, Academic Dean- Language Arts and Academic Development*

Tom Graves, Communications Chair

Karen Lubick, Academic Development Chair

Kristine Oliveira, English

Morenike Adebayo-Ige, Reading

Mary Rose Toll, Reading

John Toth, English

Mark Hoffer, English

Maurice Boyd

Daniel Humphrey, Deaf Studies

Duane Rumsey, Deaf Studies

Liette Bohler, Foreign Language

*L. Tom O'Neil, Academic Dean- Social and Behavioral Sciences*

Ken Shafer, History Chair

Irit Gat, Psychology

Melanie Parker, Child and Family Education

Andrea Sanders, Child and Family Education

*Leslie S. Uhazy, Academic Dean- Math, Science & Engineering*

Christos Valiostis, Physical Science Chair

Zia Nisani, Biological and Environmental Sciences Chair

Tooraj Gordi, Mathematics Chair

Palmdale Center

Sharon Dalmage, Director Palmdale Center

As special note of thanks is extended to Meeta Goel, Dean Institutional Effectiveness, Research and Planning and her staff for generously sharing their time and data resources; Deborah Morgan, Senior Administrative Assistant for Academic Affairs for her assistance in arranging interviews, and meetings; and Bonnie Suderman for her ongoing advice and counsel on the project.

## Appendix B: Greater Antelope Valley Region, Major Employers, 2015

| Categories and Companies               | Estimated # Employees |
|----------------------------------------|-----------------------|
| <i>Aerospace/Aviation</i>              |                       |
| Edwards Air Force Base                 | 10,647                |
| China Lake Naval Weapons Base          | 6,690                 |
| Northrop Grumman                       | 2,100                 |
| Lockheed Martin                        | 3,700                 |
| Mojave Air & Spaceport (All Employers) | 2,500                 |
| NASA Armstrong                         | 1,370                 |
| Boeing                                 | 850                   |
| <i>Government/Corrections</i>          |                       |
| County of Los Angeles                  | 3,743                 |
| CA Correctional Institute (Tehachapi)  | 1,915                 |
| CA State Prison (LA County)            | 1,671                 |
| City of Lancaster                      | 245                   |
| City of Palmdale                       | 203                   |
| California City State Prison           | 640                   |
| <i>Education/Learning</i>              |                       |
| AV Union High School District          | 1,116                 |
| Palmdale School District               | 1,792                 |
| Lancaster School District              | 1,482                 |
| Antelope Valley College                | 1,483                 |
| Westside School District               | 587                   |
| Sierra Sands School District           | 600                   |
| Tehachapi Unified School District      | 468                   |
| Southern Kern School District          | 325                   |
| <i>Healthcare/Healing</i>              |                       |
| Antelope Valley Hospital Medical Ctr   | 2,300                 |
| Kaiser Permanente                      | 1,020                 |
| Ridgecrest Regional Hospital           | 503                   |
| High Desert Health Systems             | 499                   |
| Palmdale Regional Medical Center       | 800                   |
| High Desert Medical Group              | 385                   |
| Tehachapi Health District              | 260                   |
| AMR                                    | 119                   |

Source: Greater Antelope Valley Economic Alliance. 2015 *Economic Roundtable Report*

Greater Antelope Valley Region, Major Employers in 2015 (continued)

| <b>Categories and Companies</b>    | <b>Estimated #<br/>Employees</b> |
|------------------------------------|----------------------------------|
| <i>Manufacturing/Mining</i>        |                                  |
| Rio Tinto Minerals                 | 1,000                            |
| Morton Manufacturing               | 350                              |
| Deluxe Checks                      | 290                              |
| Lance Campers                      | 244                              |
| Sygma                              | 230                              |
| BYD                                | 150                              |
| US Pole                            | 267                              |
| BAE                                | 140                              |
| Senior Systems                     | 125                              |
| Delta Scientific                   | 175                              |
| <i>Energy / Renewables / Waste</i> |                                  |
| Southern California Edison         | 256                              |
| Waste Management                   | 135                              |
| ThermalAir                         | 100                              |
| GE Wind                            | 50                               |
| <i>Retailing</i>                   |                                  |
| Wal-Mart (5)                       | 1,922                            |
| Antelope Valley Mall (All Stores)  | 1,800                            |
| Albertson's (All Stores)           | 682                              |
| Rite-Aid Distribution Center       | 623                              |
| Home Depot (4)                     | 600                              |
| Vallarta (All Stores)              | 435                              |
| Michael's Distribution Center      | 350                              |
| Lowe's (All Stores)                | 347                              |
| Target (3)                         | 345                              |
| Costco                             | 325                              |
| Kohl's                             | 112                              |
| Sam's Club                         | 194                              |

Source: Greater Antelope Valley Economic Alliance. 2015 Economic Roundtable Report

## Appendix C: Program Inventory and Awards 2010-11 to 2014-15

TOP codes in bold denote a program related to an occupation that is projected to have 50 or more annual openings out to 2022.

| Degree/<br>Certificate<br>Code | AVC<br>Major<br>Code | Major Description          | State<br>Program<br>Control # | TOP<br>Code   | Year<br>Program<br>Approved | Academic Year |               |               |               |               | Total | Average |
|--------------------------------|----------------------|----------------------------|-------------------------------|---------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|-------|---------|
|                                |                      |                            |                               |               |                             | 2010-<br>2011 | 2011-<br>2012 | 2012-<br>2013 | 2013-<br>2014 | 2014-<br>2015 |       |         |
| AS                             | AAA                  | A&A Aircraft Airframe      | 11647                         | <b>095010</b> | 1999                        |               | 4             | 8             | 5             | 4             | 21    | 5.3     |
| AS                             | AAP                  | A&A Aircraft Powerplant    | 11648                         | <b>095020</b> | 1999                        |               | 4             | 6             | 6             | 4             | 20    | 5.0     |
| AS                             | AAT                  | A&A General Aircraft Maint | 2153                          | <b>095000</b> | 2011                        |               | 4             | 4             | 2             | 6             | 16    | 4.0     |
| AA                             |                      | AA-T Anthropology          | 32859                         | 220200        | 2014                        |               |               |               |               |               | 0     |         |
| AA                             | AAHT                 | AA-T Art History           | 32137                         | 100100        | 2013                        |               |               |               |               | 2             | 2     | 2.0     |
| AA                             | COMT                 | AA-T Communication Studies | 30651                         | <b>150600</b> | 2011                        |               | 1             | 8             | 10            | 10            | 29    | 7.3     |
| AA                             |                      | AA-T Economics             | 33228                         | <b>220400</b> | 2015                        |               |               |               |               |               | 0     |         |
| AA                             | ET                   | AA-T English               | 33006                         | <b>150100</b> | 2014                        |               |               |               |               | 4             | 4     | 4.0     |
| AA                             |                      | AA-T Geography             | 32864                         | <b>220600</b> | 2014                        |               |               |               |               |               | 0     |         |
| AA                             |                      | AA-T German                | 33691                         | <b>110300</b> | 2015                        |               |               |               |               |               | 0     |         |
| AA                             | HT                   | AA-T History               | 33007                         | <b>220500</b> | 2014                        |               |               |               |               | 5             | 5     | 5.0     |
| AA                             |                      | AA-T Kinesiology           | 33028                         | 127000        | 2014                        |               |               |               |               |               | 0     |         |
| AA                             | MUST                 | AA-T Music                 | 33020                         | <b>100400</b> | 2014                        |               |               |               |               | 1             | 1     | 1.0     |
| AA                             |                      | AA-T Philosophy            | 33011                         | 150900        | 2014                        |               |               |               |               |               | 0     |         |
| AA                             | POST                 | AA-T Political Science     | 32151                         | <b>220700</b> | 2013                        |               |               |               |               | 9             | 9     | 9.0     |
| AA                             | PSYT                 | AA-T Psychology            | 32805                         | <b>200100</b> | 2014                        |               |               |               |               | 1             | 1     | 1.0     |
| AA                             | SOCT                 | AA-T Sociology             | 32150                         | <b>220800</b> | 2013                        |               |               |               |               | 5             | 5     | 5.0     |
| AA                             |                      | AA-T Spanish               | 33261                         | <b>110500</b> | 2015                        |               |               |               |               |               | 0     |         |
| AA                             | ASAT                 | AA-T Studio Arts           | 32204                         | <b>100200</b> | 2013                        |               |               |               |               | 2             | 2     | 2.0     |
| AA                             |                      | AA-T Theater Arts          | 33163                         | <b>100700</b> | 2015                        |               |               |               |               |               | 0     |         |
| AA                             | ADMJ                 | Administration of Justice  | 2182                          | <b>210500</b> | 1970                        | 64            | 69            | 105           | 113           | 112           | 463   | 92.6    |
| AS                             | ADA                  | Administrative Assistant   | 10233                         | <b>051400</b> | 1988                        | 3             | 3             |               |               | 2             | 8     | 2.7     |

| Degree/<br>Certificate<br>Code | AVC<br>Major<br>Code | Major Description              | State<br>Program<br>Control # | TOP<br>Code | Year<br>Program<br>Approved | Academic Year |               |               |               |               | Total | Average |
|--------------------------------|----------------------|--------------------------------|-------------------------------|-------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|-------|---------|
|                                |                      |                                |                               |             |                             | 2010-<br>2011 | 2011-<br>2012 | 2012-<br>2013 | 2013-<br>2014 | 2014-<br>2015 |       |         |
| CT                             | ADA1                 | Administrative Assistant Cert  | 20157                         | 051400      | 1988                        | 3             | 2             |               | 2             | 3             | 10    | 2.5     |
| CT                             | MAA1                 | Administrative Med Assist Cert | 20192                         | 120820      | 1997                        | 10            | 8             | 7             | 10            | 14            | 49    | 9.8     |
| AS                             | MAA                  | Administrative Medical Assist  | 7193                          | 120820      | 1997                        | 5             | 8             | 2             | 8             | 7             | 30    | 6.0     |
| CT                             | ACR3                 | Air Cond & Refrig Spec Cert    | 20166                         | 094600      | 1970                        | 10            | 21            | 12            | 2             | 11            | 56    | 11.2    |
| AS                             | ACRC                 | Air Cond & Refrigeration Spec  | 2150                          | 094600      | 1970                        | 1             | 2             | 3             | 3             | 2             | 11    | 2.2     |
| CL                             | ACR1                 | Air Conditioning Spec Cert     | 20165                         | 094600      | 1970                        | 15            | 20            | 9             | 2             | 11            | 57    | 11.4    |
| AS                             | ACR                  | Air Conditioning Specialist    | 10235                         | 094600      | 1970                        | 2             | 3             | 2             | 3             | 2             | 12    | 2.4     |
| CT                             | AAT1                 | Aircraft Airframe Cert         | 20177                         | 095010      | 1999                        | 23            | 12            | 21            | 19            | 19            | 94    | 18.8    |
| CL                             | AFA1                 | Aircraft Fab & Assem Cert      | 20181                         | 095050      | 2011                        | 37            | 26            | 25            | 20            | 37            | 145   | 29.0    |
| AS                             | AFAB                 | Aircraft Fabrication&Assembly  | 15404                         | 095050      | 2011                        | 8             | 8             | 14            | 4             | 11            | 45    | 9.0     |
| CT                             | AAT3                 | Aircraft Powerplant Cert       | 20179                         | 095020      | 1999                        | 32            | 20            | 12            | 31            | 18            | 113   | 22.6    |
| AS                             | ADJT                 | AS-T Administration of Justice | 32844                         | 210500      | 2014                        |               |               |               |               | 31            | 31    | 31.0    |
| AS                             | BUST                 | AS-T Business Administration   | 32978                         | 050500      | 2014                        |               |               |               |               | 23            | 23    | 23.0    |
| AS                             |                      | AS-T Early Childhood Education | 33008                         | 130500      | 2014                        |               |               |               |               |               | 0     |         |
| AS                             |                      | AS-T Geology                   | 33009                         | 191400      | 2014                        |               |               |               |               |               | 0     |         |
| AS                             | MATT                 | AS-T Mathematics               | 30661                         | 170100      | 2011                        |               | 7             | 5             | 17            | 18            | 47    | 11.8    |
| AS                             | PHYT                 | AS-T Physics                   | 33010                         | 190200      | 2014                        |               |               |               |               | 3             | 3     | 3.0     |
| AS                             | ABDC                 | Auto Coll Repair & Refin Spec  | 10238                         | 094900      | 1970                        | 1             | 1             | 1             | 2             | 1             | 6     | 1.2     |
| CT                             | ABD3                 | Auto Coll Rp & Refin Spec Cert | 20174                         | 094900      | 1970                        | 5             | 9             | 4             | 8             | 8             | 34    | 6.8     |
| AS                             | ABD                  | Auto Collision Repair Spec     | 2152                          | 094900      | 1970                        | 1             | 3             | 1             | 3             | 1             | 9     | 1.8     |
| CT                             | ABD1                 | Auto Collision Repr Spec Cert  | 20171                         | 094900      | 1970                        | 6             | 11            | 4             | 8             | 9             | 38    | 7.6     |
| AS                             | ABDR                 | Auto Refinishing Spec          | 10237                         | 094900      | 1970                        | 1             | 2             | 1             | 2             | 3             | 9     | 1.8     |
| CT                             | ABD2                 | Auto Refinishing Spec Cert     | 20172                         | 094900      | 1970                        | 7             | 11            | 7             | 8             | 11            | 44    | 8.8     |
| AS                             | BIOL                 | Biological Sciences            | 2197                          | 040100      | 1970                        | 25            | 21            | 38            | 39            | 23            | 146   | 29.2    |
| CT                             | CIS1                 | Bus Computer Info Sci Cert     | 20158                         | 070200      | 1970                        | 1             | 1             | 3             | 1             | 3             | 9     | 1.8     |
| AS                             | CIS                  | Bus Computer Info Science      | 2143                          | 070200      | 1970                        | 4             | 1             | 4             | 1             | 1             | 11    | 2.2     |

Source: Antelope Valley College Institutional Effectiveness, Research, and Planning; analysis by Cambridge West Partnership, LLC

| Degree/<br>Certificate<br>Code | AVC<br>Major<br>Code | Major Description              | State<br>Program<br>Control # | TOP<br>Code   | Year<br>Program<br>Approved | Academic Year |               |               |               |               | Total | Average |
|--------------------------------|----------------------|--------------------------------|-------------------------------|---------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|-------|---------|
|                                |                      |                                |                               |               |                             | 2010-<br>2011 | 2011-<br>2012 | 2012-<br>2013 | 2013-<br>2014 | 2014-<br>2015 |       |         |
| AS                             | BUSA                 | Business Administration        | 7238                          | <b>050500</b> | 1983                        | 45            | 74            | 89            | 84            | 75            | 367   | 73.4    |
| AS                             | BUS                  | Business-General               | 2139                          | <b>050100</b> | 1970                        | 14            | 17            | 17            | 12            | 20            | 80    | 16.0    |
| CT                             | BUS1                 | Business-General Cert          | 20148                         | 050100        | 1970                        | 7             | 13            | 17            | 12            | 18            | 67    | 13.4    |
| AA                             | CFE                  | Child & Family Education       | 2183                          | <b>130500</b> | 2012                        | 15            | 19            | 17            | 27            | 23            | 101   | 20.2    |
| CT                             | CFE1                 | Child & Family Education Cert  | 20198                         | <b>130500</b> | 2012                        | 12            | 18            | 24            | 23            | 31            | 108   | 21.6    |
| CL                             | MAC1                 | Clinical Medical Assist Cert   | 20190                         | <b>120810</b> | 2003                        | 4             | 2             | 2             | 14            | 17            | 39    | 7.8     |
| AS                             | MAC                  | Clinical Medical Assistant     | 14702                         | <b>120810</b> | 2003                        | 2             | 1             | 1             | 7             | 13            | 24    | 4.8     |
| AA                             | CT                   | Clothing and Textiles          | 7245                          | <b>130300</b> | 2011                        | 1             | 6             | 6             | 5             | 2             | 20    | 4.0     |
| CL                             | CT1                  | Clothing and Textiles Cert     | 20195                         | 130300        | 2011                        | 3             | 6             | 5             | 7             | 4             | 25    | 5.0     |
| AA                             | PHTC                 | Commercial Photography         | 2160                          | 101200        | 1982                        | 1             | 2             | 5             | 4             | 9             | 21    | 4.2     |
| AA                             | CAN                  | Computer Animation             | 12161                         | <b>061440</b> | 2000                        | 2             | 5             | 6             | 2             | 7             | 22    | 4.4     |
| CT                             | CAN1                 | Computer Animation Cert        | 19467                         | 061440        | 2000                        | 4             | 4             | 9             | 3             | 14            | 34    | 6.8     |
| AS                             | CA                   | Computer Applications          | 2145                          | 070210        | 1981                        | 3             | 6             | 2             | 7             | 4             | 22    | 4.4     |
| CT                             | CA1                  | Computer Applications Cert     | 20159                         | 070210        | 1981                        | 3             | 3             | 2             | 7             | 4             | 19    | 3.8     |
| AA                             | CG                   | Computer Graphics              | 10241                         | <b>061460</b> | 1989                        | 2             | 2             | 1             |               |               | 5     | 1.7     |
| CT                             | CG1                  | Computer Graphics Cert         | 10241                         | 061460        | 1989                        | 3             | 2             |               |               |               | 5     | 2.5     |
| CL                             | CNC1                 | Computer Networking Core Cert  | 14791                         | 070810        | 2003                        | 11            | 7             | 11            | 10            | 7             | 46    | 9.2     |
| CT                             | CNM1                 | Computer Networking Multi Cert | 20162                         | 070810        | 2003                        | 5             | 11            | 12            | 7             | 7             | 42    | 8.4     |
| AS                             | CN                   | Computer Networking Multi-Plat | 14790                         | <b>070810</b> | 2003                        | 7             | 14            | 12            | 8             | 6             | 47    | 9.4     |
| CT                             | CSD1                 | Computer Software Dev Cert     | 20160                         | 070710        | 1970                        | 1             | 2             | 2             | 1             | 6             | 12    | 2.4     |
| AS                             | CSD                  | Computer Software Developer    | 2144                          | <b>070710</b> | 1970                        | 2             | 4             | 2             | 1             | 5             | 14    | 2.8     |
| CT                             | CSU1                 | CSU General Education Cert     | 17984                         | 490110        | 2008                        | 26            | 20            | 59            | 48            | 166           | 319   | 63.8    |
| AA                             | DSA                  | Deaf Studies: ASL              | 7248                          | <b>085000</b> | 2000                        | 6             | 14            | 14            | 11            | 16            | 61    | 12.2    |
| CT                             | DSA1                 | Deaf Studies: ASL Cert         | 19463                         | 085000        | 2000                        | 7             | 18            | 18            | 8             | 16            | 67    | 13.4    |
| AA                             | DSI                  | Deaf Studies: Interp Trng      | 12137                         | 085010        | 2000                        | 1             | 12            | 14            | 7             | 17            | 51    | 10.2    |
| CT                             | DSI1                 | Deaf Studies: Interp Trng Cert | 19464                         | 085010        | 2000                        | 1             | 18            | 20            | 5             | 16            | 60    | 12.0    |

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| Degree/<br>Certificate<br>Code | AVC<br>Major<br>Code | Major Description              | State<br>Program<br>Control # | TOP<br>Code   | Year<br>Program<br>Approved | Academic Year |               |               |               |               | Total | Average |
|--------------------------------|----------------------|--------------------------------|-------------------------------|---------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|-------|---------|
|                                |                      |                                |                               |               |                             | 2010-<br>2011 | 2011-<br>2012 | 2012-<br>2013 | 2013-<br>2014 | 2014-<br>2015 |       |         |
| AA                             | DPI                  | Digital Photo Imaging          | 12160                         | 101200        | 2000                        | 4             | 4             | 4             | 3             | 4             | 19    | 3.8     |
| CT                             | DPI1                 | Digital Photo Imaging Cert     | 19466                         | 101200        | 2000                        | 8             | 2             | 9             | 5             | 4             | 28    | 5.6     |
| AA                             | CGDP                 | Digital Printing               | 2196                          | 061450        | 1989                        | 2             |               | 2             |               | 4             | 8     | 2.7     |
| CT                             | CDP1                 | Digital Printing Cert          | 19468                         | 061450        | 1989                        | 3             | 1             | 2             | 1             | 5             | 12    | 2.4     |
| CL                             | DRF1                 | Drafting/Cmptr Aided Dsgn Cert | 20185                         | 095300        | 1970                        | 2             |               | 6             | 1             | 5             | 14    | 3.5     |
| AS                             | DRF                  | Drafting/Computer Aided Dsgn   | 2148                          | 095300        | 1970                        | 2             |               | 7             | 1             | 5             | 15    | 3.8     |
| AS                             | AUTD                 | Driveability, Emiss &Elec      | 10236                         | 094800        | 1970                        |               |               |               | 3             | 3             | 6     | 3.0     |
| CL                             | AUT1                 | Driveability, Emiss &Elec Cert | 20169                         | 094800        | 2012                        | 1             | 1             | 2             | 7             | 7             | 18    | 3.6     |
| AS                             | ELE                  | Electrical Technology          | 14414                         | 095220        | 2002                        | 2             | 7             | 10            | 4             | 8             | 31    | 6.2     |
| CL                             | ELE1                 | Electrical Technology Cert     | 20184                         | 095220        | 2002                        | 4             | 22            | 20            | 7             | 18            | 71    | 14.2    |
| AS                             | ELT                  | Electronics Technology         | 2149                          | <b>093400</b> | 1970                        | 5             | 4             | 8             | 8             | 13            | 38    | 7.6     |
| CT                             | ELT1                 | Electronics Technology Cert    | 19460                         | 093400        | 1970                        | 3             | 9             | 9             | 11            | 15            | 47    | 9.4     |
| AS                             | AUT                  | Engine & Drive Trains          | 2151                          | 094800        | 1970                        |               | 1             |               | 5             | 4             | 10    | 3.3     |
| CL                             | AUT2                 | Engine and Drive Trains Cert   | 20170                         | 094800        | 1970                        | 3             | 4             | 5             | 13            | 6             | 31    | 6.2     |
| AS                             | ENT                  | Engineering Technology         | 7241                          | <b>092400</b> | 1970                        | 1             | 1             | 2             | 1             |               | 5     | 1.3     |
| CT                             | ENT1                 | Engineering Technology Cert    | 7241                          | 092400        | 1970                        |               | 1             | 1             | 1             |               | 3     | 1.0     |
| AA                             | ENGN                 | English - Non Transfer         | 19158                         | 150100        | 2009                        | 2             | 2             |               | 3             | 1             | 8     | 2.0     |
| AA                             | ENGT                 | English - Transfer             | 19033                         | <b>150100</b> | 2009                        |               | 1             | 1             | 1             | 5             | 8     | 2.0     |
| CT                             | APL1                 | Envir Horticulture Cert        | 20145                         | 010900        | 1970                        | 5             | 3             | 2             | 2             | 4             | 16    | 3.2     |
| AS                             | APL                  | Environmental Horticulture     | 2195                          | 010900        | 1970                        | 3             | 1             |               | 3             | 4             | 11    | 2.8     |
| CT                             |                      | Escrow Certificate             | 20154                         | 051110        | 1970                        |               |               |               |               |               | 0     |         |
| AS                             |                      | Escrow Degree                  | 13261                         | 051110        | 1970                        |               |               |               |               |               | 0     |         |
| AA                             | FCE                  | FCE: Child & Family Develop    | 2164                          | 130100        | 1970                        |               | 1             |               |               |               | 1     | 1.0     |
| AA                             | FCET                 | FCE: Clothing & Textiles       | 10242                         | 130100        | 1970                        | 1             |               |               | 1             | 1             | 3     | 1.0     |
| AA                             | FCEE                 | FCE: Consumer Education        | 10243                         | 130100        | 1970                        |               | 2             |               |               |               | 2     | 2.0     |
| AA                             | FCEI                 | FCE: Interior Design           | 10244                         | 130100        | 1970                        |               |               |               |               | 1             | 1     | 1.0     |
| AA                             | FCEN                 | FCE: Nutrition & Foods         | 13262                         | 130100        | 1970                        | 1             | 2             | 1             |               | 1             | 5     | 1.3     |

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| Degree/<br>Certificate<br>Code | AVC<br>Major<br>Code | Major Description              | State<br>Program<br>Control # | TOP<br>Code   | Year<br>Program<br>Approved | Academic Year |               |               |               |               | Total | Average |
|--------------------------------|----------------------|--------------------------------|-------------------------------|---------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|-------|---------|
|                                |                      |                                |                               |               |                             | 2010-<br>2011 | 2011-<br>2012 | 2012-<br>2013 | 2013-<br>2014 | 2014-<br>2015 |       |         |
| AS                             | FT                   | Fire Technology                | 2185                          | <b>213300</b> | 1970                        | 16            | 10            | 9             | 20            | 13            | 68    | 13.6    |
| CL                             | FT1                  | Fire Technology Cert           | 20203                         | <b>213300</b> | 1970                        | 11            | 14            | 16            | 18            | 14            | 73    | 14.6    |
| CL                             | FFA1                 | Firefighter I Academy Cert     | 17571                         | <b>213350</b> | 2008                        | 31            | 27            | 26            | 22            | 27            | 133   | 26.6    |
| CL                             | AAT2                 | Gen Aircraft Maint Cert        | 20175                         | <b>095000</b> | 2011                        | 9             | 16            | 2             | 10            | 14            | 51    | 10.2    |
| LC                             | GISX                 | Geographic Info Systems LCert  | 13167                         | 220610        | 2009                        |               | 1             | 4             | 6             | 4             | 15    | 3.8     |
| AA                             | GD                   | Graphic Design                 | 10241                         | 061460        | 1989                        | 7             | 8             | 15            | 15            | 12            | 57    | 11.4    |
| CT                             | GD1                  | Graphic Design Cert            | 19469                         | 061460        | 1989                        | 7             | 10            | 17            | 21            | 15            | 70    | 14.0    |
| LC                             | GRMX                 | Grounds Maintenance LCert      |                               | 010910        | 2005                        | 3             | 2             | 1             |               | 1             | 7     | 1.8     |
| CT                             | UC1                  | IGETC General Education Cert   | 17985                         | 490110        | 2008                        | 8             | 6             | 17            | 26            | 43            | 100   | 20.0    |
| AA                             | INA                  | Instructional Aide             | 2184                          | <b>080200</b> | 1970                        | 3             | 2             | 5             | 7             | 6             | 23    | 4.6     |
| CL                             | INA1                 | Instructional Aide Cert        | 20163                         | <b>080200</b> | 1970                        | 5             | 2             | 9             | 8             | 4             | 28    | 5.6     |
| CT                             | IMW1                 | Interact Media-Web Design Cert | 19470                         | 061410        | 2000                        |               | 3             | 3             | 4             | 3             | 13    | 3.3     |
| AA                             | IMW                  | Interactive Media-Web Design   | 7247                          | <b>061410</b> | 2000                        |               |               | 2             | 3             | 3             | 8     | 2.7     |
| AA                             | ID                   | Interior Design                | 7244                          | <b>130200</b> | 2011                        | 6             | 5             | 6             | 11            | 6             | 34    | 6.8     |
| CT                             | ID1                  | Interior Design Cert           | 20194                         | 130200        | 2011                        | 12            | 12            | 6             | 14            | 6             | 50    | 10.0    |
| AA                             | KIN                  | Kinesiology                    | 2146                          | <b>083500</b> | 1970                        |               |               | 10            | 35            | 62            | 107   | 35.7    |
| AS                             | APLC                 | Landscape Construction         | 11649                         | 010910        | 1999                        | 3             |               |               | 1             | 3             | 7     | 2.3     |
| CT                             | APL2                 | Landscape Construction Cert    | 20146                         | 010910        | 1999                        | 3             |               |               | 1             | 3             | 7     | 2.3     |
| AA                             | LAAH                 | LAS: Arts and Humanities       | 18018                         | 490310        | 2008                        | 44            | 56            | 69            | 106           | 111           | 386   | 77.2    |
| AA                             | LAMS                 | LAS: Math and Sciences         | 18019                         | 490200        | 2008                        | 90            | 98            | 129           | 204           | 162           | 683   | 136.6   |
| AA                             | LASB                 | LAS: Social/Behavioral Science | 18020                         | <b>220100</b> | 2008                        | 184           | 187           | 233           | 358           | 377           | 1,339 | 267.8   |
| AA                             | LAS                  | Letters, Arts, and Sciences    | 2192                          |               |                             | 56            | 26            | 8             | 6             | 4             | 100   | 20.0    |
| AS                             | MGT                  | Management                     | 7239                          | <b>050600</b> | 1970                        | 1             |               | 2             | 4             | 6             | 13    | 3.3     |
| CT                             | MGT4                 | Management Cert                | 19462                         | 050600        | 1970                        |               |               | 2             | 5             | 6             | 13    | 4.3     |
| AS                             | MAR                  | Marketing                      | 7240                          | <b>050900</b> | 1980                        | 3             | 2             | 3             | 3             | 1             | 12    | 2.4     |
| CT                             |                      | Marketing Cert                 | 20151                         | <b>050900</b> | 1980                        | 1             | 2             | 7             | 2             | 1             | 13    | 2.6     |

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| Degree/<br>Certificate<br>Code | AVC<br>Major<br>Code | Major Description             | State<br>Program<br>Control # | TOP<br>Code   | Year<br>Program<br>Approved | Academic Year |               |               |               |               | Total | Average |
|--------------------------------|----------------------|-------------------------------|-------------------------------|---------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|-------|---------|
|                                |                      |                               |                               |               |                             | 2010-<br>2011 | 2011-<br>2012 | 2012-<br>2013 | 2013-<br>2014 | 2014-<br>2015 |       |         |
| AS                             | MATH                 | Mathematics                   | 2176                          | <b>170100</b> | 1970                        | 17            | 16            | 15            | 24            | 14            | 86    | 17.2    |
| AS                             | MA                   | Medical Assistant             | 2167                          | <b>120800</b> | 1970                        | 2             |               | 1             | 6             | 8             | 17    | 4.3     |
| CT                             | MA1                  | Medical Office Assistant Cert | 20189                         | <b>120800</b> | 1970                        | 2             | 2             |               | 11            | 10            | 25    | 6.3     |
| AA                             | MUS                  | Music                         | 2157                          | <b>100400</b> | 1999                        |               | 1             | 7             | 8             | 7             | 23    | 5.8     |
| CL                             | MUS3                 | Music-Comm: General           | 2158                          | <b>100500</b> | 1987                        | 4             | 9             | 8             | 3             | 6             | 30    | 6.0     |
| CT                             | MUS2                 | Music-Comm: Perform Specialty | 10239                         | <b>100500</b> | 1987                        | 2             | 3             | 6             | 1             | 1             | 13    | 2.6     |
| AS                             | OFS                  | Office Specialist             | 2141                          | <b>051400</b> | 1970                        | 3             | 5             | 1             | 4             | 2             | 15    | 3.0     |
| CL                             | OFS1                 | Office Specialist Cert        | 20155                         | <b>051400</b> | 1970                        | 4             | 5             | 3             | 6             | 3             | 21    | 4.2     |
| LC                             | OSX                  | Office Support Award LCert    |                               | <b>051400</b> | 1999                        | 1             | 1             |               | 1             | 2             | 5     | 1.3     |
| AA                             | PHO                  | Photography                   | 12160                         | 101200        | 2000                        | 1             | 1             |               |               |               | 2     | 1.0     |
| CT                             | PHO1                 | Photography-Commercial        | 19465                         | 101200        | 1982                        | 3             | 8             | 9             | 5             | 11            | 36    | 7.2     |
| AA                             | PE                   | Physical Education            | 2146                          | 090100        | 1970                        | 8             | 11            | 21            | 7             | 2             | 49    | 9.8     |
| AS                             | PSC                  | Physical Sciences             | 2169                          | <b>190100</b> | 1970                        | 5             | 10            | 14            | 40            | 14            | 83    | 16.6    |
| AS                             | BOK                  | Professional Bookkeeping      | 16468                         | <b>050200</b> | 2005                        | 8             | 6             | 13            | 12            | 13            | 52    | 10.4    |
| CL                             | BOK1                 | Professional Bookkeeping Cert | 20149                         | <b>050200</b> | 2005                        | 5             | 8             | 17            | 13            | 13            | 56    | 11.2    |
| AS                             | RADT                 | Radiologic Technology         | 17750                         | <b>122500</b> | 2007                        | 7             | 8             |               | 9             |               | 24    | 8.0     |
| AS                             | RE                   | Real Estate                   | 2140                          | 051100        | 1970                        | 4             | 2             | 3             | 3             | 4             | 16    | 3.2     |
| CT                             | RE1                  | Real Estate Broker's Cert     | 20152                         | 051100        | 1970                        | 3             | 3             | 2             | 4             | 5             | 17    | 3.4     |
| CL                             | RE3                  | Real Estate Salesperson Cert  | 13260                         | 051100        | 1970                        | 2             | 3             | 2             | 3             | 4             | 14    | 2.8     |
| AS                             | ACRR                 | Refrigeration Specialist      | 10234                         | <b>094600</b> | 1970                        | 2             | 2             | 4             | 3             | 3             | 14    | 2.8     |
| CL                             | ACR2                 | Refrigeration Specialist Cert | 20168                         | <b>094600</b> | 1970                        | 14            | 20            | 14            | 10            | 12            | 70    | 14.0    |
| AS                             | RN                   | Registered Nursing            | 2138                          | <b>123010</b> | 1970                        | 134           | 98            | 111           | 92            | 121           | 556   | 111.2   |
| AS                             | RSPT                 | Respiratory Care/Therapy      | 16876                         | <b>121000</b> | 2006                        | 15            | 13            | 14            | 11            | 13            | 66    | 13.2    |
| AA                             | SAG                  | School-Aged Child Care        | 7242                          | <b>130550</b> | 1990                        | 1             |               | 1             |               | 1             | 3     | 1.0     |
| CT                             | SAG1                 | School-Aged Child Care Cert   | 20202                         | <b>130550</b> | 1990                        | 1             | 1             |               |               | 1             | 3     | 1.0     |

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| Degree/<br>Certificate<br>Code | AVC<br>Major<br>Code | Major Description              | State<br>Program<br>Control # | TOP<br>Code | Year<br>Program<br>Approved | Academic Year |               |               |               |               | Total        | Average        |
|--------------------------------|----------------------|--------------------------------|-------------------------------|-------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|--------------|----------------|
|                                |                      |                                |                               |             |                             | 2010-<br>2011 | 2011-<br>2012 | 2012-<br>2013 | 2013-<br>2014 | 2014-<br>2015 |              |                |
| AS                             | SBM                  | Small Business Management      | 10229                         | 050640      | 1970                        | 2             | 2             | 1             |               | 6             | 11           | 2.8            |
| CT                             | SBM1                 | Small Business Management Cert | 20150                         | 050640      | 1970                        | 2             | 2             | 1             | 1             | 6             | 12           | 2.4            |
| AA                             | VDP                  | Video Design&Production        | 7246                          | 061410      | 2000                        |               |               | 3             | 4             | 3             | 10           | 3.3            |
| CT                             | VDP1                 | Video Design&Production Cert   | 19471                         | 061410      | 2000                        |               | 3             | 3             | 6             | 5             | 17           | 4.3            |
| CT                             | LVN                  | Vocational Nursing Cert        | 2165                          | 123020      | 2011                        | 16            | 27            | 21            |               |               | 64           | 21.3           |
| AS                             | WLD                  | Welding                        | 2155                          | 095650      | 1970                        | 1             |               | 2             | 3             | 3             | 9            | 2.3            |
| CL                             | WLD1                 | Welding Cert                   | 20186                         | 095650      | 1970                        | 3             | 3             | 7             | 3             | 6             | 22           | 4.4            |
| AS                             | WFT                  | Wildland Fire Technology       | 16569                         | 213310      | 2005                        |               | 4             |               | 4             | 2             | 10           | 3.3            |
| LC                             | WFTX                 | Wildland Fire Technology LCert | 16508                         | 213310      | 2008                        |               |               | 1             |               |               | 1            | 1.0            |
|                                |                      |                                | <b>Totals</b>                 |             |                             | <b>1,279</b>  | <b>1,417</b>  | <b>1,670</b>  | <b>1,937</b>  | <b>2,266</b>  | <b>8,569</b> | <b>1,713.8</b> |

Source: Antelope Valley College. Office of institutional Effectiveness, Research, and Planning; analysis by Cambridge West Partnership, LLC

## Locally Approved Only, Programs of Instruction

- Grounds Maintenance (9 units)
- Office Support Award (15-16 units)

Source: Antelope Valley College, Office of Instruction

## Appendix D: Discussion Points for Labor Market Analysis

### Discussion Points for Labor Market Analysis

#### Net Job Market

- Given the number of enrollments that are projected for the program and that are necessary to support the program, are there enough openings locally to permit placement of the expected number of graduates?
- Has the job market been declining slowly? Holding steady? Growing slowly? Growing rapidly? Recently emerging?

#### Earning Potential

- What is the average initial salary?
- What is the average percentage of salary increase in two years? Five years?

#### Program Credibility /Career Potential

- If advanced degrees are typically needed for career advancement, will the courses required for this program transfer toward completion of the requirements for those degrees?
- Will this preparation permit students to remain current in their field?
- Does the program teach basic principles and theory, as well as application? Is it current and of sufficient rigor? Does it allow for later shifts in career?
- Does this preparation meet the needs of those already employed for upward mobility, entrepreneurship, or a career upgrade?
- Does the program prepare students to work in an ethnically diverse workforce and in an ethnically diverse, global market?

#### Emerging Occupations

- When job market data are not available or are not appropriate for a new CTE program in an area of emerging social need or technology, it becomes important to provide a careful analysis and explication of the specific demands of this new occupation.
- A carefully designed employer survey (see instructions for Employer Survey/Other Evidence of Need in form instructions) can elicit documentation demonstrating that employers:
  - Share the college's assumption regarding future direction(s) of the field and the skills that this emerging industry will require of employees
  - Recognize the value of the proposed degree or certificate in the hiring or promoting of staff

#### Competitive Fields

Colleges are often called upon to provide training that students greatly desire, even where the job prospects are limited and the field is highly competitive. In such occupations—often in the arts and entertainment—it is talent rather than education that drives hiring. While no community college certificate can substitute for talent, a program that is

exceptionally well designed to identify and develop talent can still be justified when few programs of similar quality exist in the college service area.

#### Career Technical Education Skills

Many kinds of certificates are of occupational benefit to students already employed. In such circumstances, the program objectives and design, including the sequencing of courses, must fit the needs of students likely to be already employed. The course sequence must build on students' prior experience, and courses must be scheduled to accommodate working students. A program must not establish provisions that exclude students who are not already employed in a particular industry, unless the college makes available to such students a practicable entry-level pathway that would qualify them, upon completion, for the advanced training.

#### Small Businesses or Cottage Industries

Entrepreneurial opportunities and the market for cottage industries yield few statistics. Yet entrepreneurial opportunities are of value to an increasingly large proportion of the workforce, especially in rural areas. A proposal for approval of a program designed to meet the needs of students interested in pursuing entrepreneurial activities must include a careful analysis of needs and of the market within which they must compete.

Source: California Community College Chancellor's Office. Program and Course Approval Handbook 4<sup>th</sup> edition March 2012.

## Appendix E: Projected Job Openings by Educational Preparation

The following table identifies occupations commonly requiring a Bachelor's Degree where at least an average of 50 annual openings are projected to 2022. Sixty occupations in the East Kern, Los Angeles, and Ventura County region meet these criteria. A count of the nine area community colleges providing a degree program related to each occupation and the *average* number of degrees awarded from 2010-11 to 2014-15 is provided. A **bolded** TOP code indicates that the Antelope Valley College has created an AD-T or a regular Associate Degree program of study that is related to the occupation.

| EDD Average Annual Projected Occupational Openings 2012-2022 |                                                                          |                           |                 |            |                     | Programs of Study |       |                  |                  | Av Awards                  |         |          |            |
|--------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------|-----------------|------------|---------------------|-------------------|-------|------------------|------------------|----------------------------|---------|----------|------------|
| SOC                                                          | Occupational Title                                                       | Average Annual Total Jobs | Entry Ed. Level | Work Exper | On-the-Job Training | TOP               | Total | Cert. of Achieve | Associate Degree | 2010-11 to 2014-15 Degrees | Occ Cnt | AVC AD-T | AVC AA/ AS |
| 111021                                                       | General and Operations Managers                                          | 2,392                     | Bachelor's      | <5 years   | None                | <b>050100</b>     | 7     | 1                | 6                | 215.2                      | 1       |          | Y          |
| 111021                                                       | General and Operations Managers                                          |                           |                 |            |                     | <b>050500</b>     | 13    | 1                | 12               | 394.4                      |         | Y        |            |
| 111021                                                       | General and Operations Managers                                          |                           |                 |            |                     | <b>050600</b>     | 15    | 8                | 7                | 47.3                       |         |          | Y          |
| 111021                                                       | General and Operations Managers                                          |                           |                 |            |                     | <b>050640</b>     | 5     | 2                | 3                | 20.2                       |         |          | Y          |
| 111021                                                       | General and Operations Managers                                          |                           |                 |            |                     | 050650            | 3     | 3                |                  |                            |         |          |            |
| 132011                                                       | Accountants and Auditors                                                 | 2,218                     | Bachelor's      | None       | None                | <b>050200</b>     | 15    | 7                | 8                | 182.8                      | 2       |          | Y          |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education | 987                       | Bachelor's      | None       | I/R                 | <b>040100</b>     | 9     | 1                | 8                | 137.1                      | 3       |          | Y          |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | <b>100200</b>     | 18    | 2                | 16               | 85.8                       |         | Y        |            |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | <b>100400</b>     | 12    | 1                | 11               | 27.4                       |         | Y        |            |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | 110200            | 1     |                  | 1                | 3.0                        |         |          |            |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | <b>110500</b>     | 9     |                  | 9                | 29.8                       |         | Y        |            |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | <b>150100</b>     | 16    |                  | 16               | 73.3                       |         | Y        |            |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | <b>170100</b>     | 15    |                  | 15               | 144.8                      |         | Y        |            |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | <b>190100</b>     | 3     |                  | 3                | 18.4                       |         |          | Y          |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | <b>190200</b>     | 6     |                  | 6                | 35.5                       |         | Y        |            |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | 190500            | 4     |                  | 4                | 12.1                       |         |          |            |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | <b>220100</b>     | 3     |                  | 3                | 433.0                      |         |          | Y          |
| 252031                                                       | Secondary School Teachers, Except Special and Career/Technical Education |                           |                 |            |                     | <b>220500</b>     | 11    |                  | 11               | 109.7                      |         | Y        |            |
| 272012                                                       | Producers and Directors                                                  | 972                       | Bachelor's      | <5 years   | None                | 060400            | 2     | 1                | 1                | 6.0                        | 4       |          |            |
| 272012                                                       | Producers and Directors                                                  |                           |                 |            |                     | 060420            | 5     | 1                | 4                | 3.7                        |         |          |            |
| 272012                                                       | Producers and Directors                                                  |                           |                 |            |                     | 061220            | 1     |                  | 1                | 6.6                        |         |          |            |
| 272012                                                       | Producers and Directors                                                  |                           |                 |            |                     | <b>100700</b>     | 10    | 2                | 8                | 26.1                       |         | Y        |            |
|                                                              | I/R- Internship/Residency                                                |                           |                 |            |                     |                   |       |                  |                  |                            |         |          |            |



| EDD Average Annual Projected Occupational Openings 2012-2022 |                                                                                       |                           |                 |            |                     | Programs of Study |       |                  |                  | Av Awards                  |         |          |           |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------|-----------------|------------|---------------------|-------------------|-------|------------------|------------------|----------------------------|---------|----------|-----------|
| SOC                                                          | Occupational Title                                                                    | Average Annual Total Jobs | Entry Ed. Level | Work Exper | On-the-Job Training | TOP               | Total | Cert. of Achieve | Associate Degree | 2010-11 to 2014-15 Degrees | Occ Cnt | AVC AD-T | AVC AA/AS |
| 131111                                                       | Management Analysts                                                                   | 948                       | Bachelor's      | <5 years   | None                | 050100            | 7     | 1                | 6                | 215.2                      | 5       |          | Y         |
| 131111                                                       | Management Analysts                                                                   |                           |                 |            |                     | 050500            | 13    | 1                | 12               | 394.4                      |         | Y        |           |
| 131111                                                       | Management Analysts                                                                   |                           |                 |            |                     | 050600            | 15    | 8                | 7                | 47.3                       |         |          | Y         |
| 112022                                                       | Sales Managers                                                                        | 575                       | Bachelor's      | <5 years   | None                | 050100            | 7     | 1                | 6                | 215.2                      | 6       |          | Y         |
| 112022                                                       | Sales Managers                                                                        |                           |                 |            |                     | 050500            | 13    | 1                | 12               | 394.4                      |         | Y        |           |
| 112022                                                       | Sales Managers                                                                        |                           |                 |            |                     | 050600            | 15    | 8                | 7                | 47.3                       |         |          | Y         |
| 112022                                                       | Sales Managers                                                                        |                           |                 |            |                     | 050640            | 5     | 2                | 3                | 20.2                       |         |          | Y         |
| 151132                                                       | Software Developers, Applications                                                     | 547                       | Bachelor's      | None       | None                | 070600            | 3     |                  | 3                | 13.4                       | 7       |          |           |
| 151132                                                       | Software Developers, Applications                                                     |                           |                 |            |                     | 070710            | 5     | 4                | 1                | 3.6                        |         |          |           |
| 151121                                                       | Computer Systems Analysts                                                             | 494                       | Bachelor's      | None       | None                | 070200            | 13    | 6                | 7                | 30.1                       | 8       |          | Y         |
| 151121                                                       | Computer Systems Analysts                                                             |                           |                 |            |                     | 070810            | 14    | 8                | 6                | 32.8                       |         |          | Y         |
| 252022                                                       | Middle School Teachers, Except Special and Career/Technical Education                 | 480                       | Bachelor's      | None       | I/R                 | 083900            |       |                  |                  |                            | 9       |          |           |
| 271014                                                       | Multimedia Artists and Animators                                                      | 474                       | Bachelor's      | None       | MT OJT              | 061410            | 22    | 11               | 11               | 14.4                       | 10      |          | Y         |
| 271014                                                       | Multimedia Artists and Animators                                                      |                           |                 |            |                     | 061420            | 3     | 2                | 1                |                            |         |          |           |
| 271014                                                       | Multimedia Artists and Animators                                                      |                           |                 |            |                     | 061440            | 8     | 4                | 4                | 12.0                       |         |          | Y         |
| 271014                                                       | Multimedia Artists and Animators                                                      |                           |                 |            |                     | 061460            | 2     | 1                | 1                | 12.0                       |         |          | Y         |
| 271014                                                       | Multimedia Artists and Animators                                                      |                           |                 |            |                     | 103000            | 5     | 3                | 2                | 20.4                       |         |          |           |
| 151133                                                       | Software Developers, Systems Software                                                 | 453                       | Bachelor's      | None       | None                | 070600            | 3     |                  | 3                | 13.4                       | 11      |          |           |
| 151133                                                       | Software Developers, Systems Software                                                 |                           |                 |            |                     | 070710            | 5     | 4                | 1                | 3.6                        |         |          |           |
| 271024                                                       | Graphic Designers                                                                     | 437                       | Bachelor's      | None       | None                | 061460            | 2     | 1                | 1                | 12.0                       | 12      |          | Y         |
| 271024                                                       | Graphic Designers                                                                     |                           |                 |            |                     | 103000            | 5     | 3                | 2                | 20.4                       |         |          |           |
|                                                              | Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products | 401                       | Bachelor's      | None       | MT OJT              | 050800            |       |                  |                  |                            | 13      |          |           |
| 119111                                                       | Medical and Health Services Managers                                                  | 376                       | Bachelor's      | None       | None                | 120200            |       |                  |                  |                            | 14      |          |           |
| 119021                                                       | Construction Managers                                                                 | 375                       | Bachelor's      | None       | MT OJT              | 095700            | 5     | 3                | 2                | 9.0                        | 15      |          |           |
| 273043                                                       | Writers and Authors                                                                   | 362                       | Bachelor's      | None       | MT OJT              | 060200            | 7     |                  | 7                | 23.7                       | 16      |          |           |
| 273043                                                       | Writers and Authors                                                                   |                           |                 |            |                     | 150100            | 16    |                  | 16               | 73.3                       |         | Y        |           |
| 273043                                                       | Writers and Authors                                                                   |                           |                 |            |                     | 150600            | 10    | 1                | 9                | 160.9                      |         | Y        |           |
| 131051                                                       | Cost Estimators                                                                       | 341                       | Bachelor's      | None       | None                | 050100            | 7     | 1                | 6                | 215.2                      | 17      |          | Y         |
| 131051                                                       | Cost Estimators                                                                       |                           |                 |            |                     | 050500            | 13    | 1                | 12               | 394.4                      |         | Y        |           |
| 131051                                                       | Cost Estimators                                                                       |                           |                 |            |                     | 050600            | 15    | 8                | 7                | 47.3                       |         |          | Y         |
| 131051                                                       | Cost Estimators                                                                       |                           |                 |            |                     | 095200            | 4     | 2                | 2                | 3.2                        |         |          |           |
| 113011                                                       | Administrative Services Managers                                                      | 310                       | Bachelor's      | <5 years   | None                | 050100            | 7     | 1                | 6                | 215.2                      | 18      |          | Y         |
| 113011                                                       | Administrative Services Managers                                                      |                           |                 |            |                     | 050500            | 13    | 1                | 12               | 394.4                      |         | Y        |           |
| 113011                                                       | Administrative Services Managers                                                      |                           |                 |            |                     | 050600            | 15    | 8                | 7                | 47.3                       |         |          | Y         |
| 113011                                                       | Administrative Services Managers                                                      |                           |                 |            |                     | 050630            | 4     | 2                | 2                | 4.0                        |         |          |           |
| 113011                                                       | Administrative Services Managers                                                      |                           |                 |            |                     | 050640            | 5     | 2                | 3                | 20.2                       |         |          | Y         |
|                                                              | MT OJT- mor than 1 month and up to 12 months OJT and informal training                |                           |                 |            |                     |                   |       |                  |                  |                            |         |          |           |

| EDD Average Annual Projected Occupational Openings 2012-2022 |                                                            |                           |                 |            |                     | Programs of Study |       |                  |                  | Av Awards                  |         |          |           |
|--------------------------------------------------------------|------------------------------------------------------------|---------------------------|-----------------|------------|---------------------|-------------------|-------|------------------|------------------|----------------------------|---------|----------|-----------|
| SOC                                                          | Occupational Title                                         | Average Annual Total Jobs | Entry Ed. Level | Work Exper | On-the-Job Training | TOP               | Total | Cert. of Achieve | Associate Degree | 2010-11 to 2014-15 Degrees | Occ Cnt | AVC AD-T | AVC AA/AS |
| 112021                                                       | Marketing Managers                                         | 305                       | Bachelor's      | ≥5 years   | None                | 050970            |       |                  |                  |                            | 19      |          |           |
| 113021                                                       | Computer and Information Systems Managers                  | 299                       | Bachelor's      | ≥5 years   | None                | 070600            | 3     |                  | 3                | 13.4                       | 20      |          |           |
| 151131                                                       | Computer Programmers                                       | 298                       | Bachelor's      | None       | None                | 070600            | 3     |                  | 3                | 13.4                       | 21      |          |           |
| 151131                                                       | Computer Programmers                                       |                           |                 |            |                     | 070710            | 5     | 4                | 1                | 3.6                        |         |          |           |
| 399032                                                       | Recreation Workers                                         | 298                       | Bachelor's      | None       | None                | 083610            |       |                  |                  |                            | 22      |          |           |
| 151142                                                       | Network and Computer Systems Administrators                | 274                       | Bachelor's      | None       | None                | 070800            | 2     | 2                |                  |                            | 23      |          |           |
| 272022                                                       | Coaches and Scouts                                         | 264                       | Bachelor's      | None       | None                | <b>083500</b>     | 4     |                  | 4                | 68.8                       | 24      |          | Y         |
| 172072                                                       | Electronics Engineers, Except Computer                     | 234                       | Bachelor's      | None       | None                | <b>093400</b>     | 10    | 6                | 4                | 17.8                       | 25      |          | Y         |
| 172072                                                       | Electronics Engineers, Except Computer                     |                           |                 |            |                     | 093430            | 1     | 1                |                  |                            |         |          |           |
| 119041                                                       | Architectural and Engineering Managers                     | 221                       | Bachelor's      | ≥5 years   | None                | 020110            |       |                  |                  |                            | 26      |          |           |
| 271011                                                       | Art Directors                                              | 189                       | Bachelor's      | ≥5 years   | None                | 103000            | 5     | 3                | 2                | 20.4                       | 27      |          |           |
| 271022                                                       | Fashion Designers                                          | 183                       | Bachelor's      | None       | None                | <b>130300</b>     | 2     | 1                | 1                | 4.0                        | 28      |          | Y         |
| 273031                                                       | Public Relations Specialists                               | 180                       | Bachelor's      | None       | None                | 060600            | 1     |                  | 1                |                            | 29      |          |           |
| 273031                                                       | Public Relations Specialists                               |                           |                 |            |                     | <b>150600</b>     | 10    | 1                | 9                | 160.9                      |         | Y        |           |
| 151143                                                       | Computer Network Architects                                | 175                       | Bachelor's      | ≥5 years   | None                | 070800            | 2     | 2                |                  |                            | 30      |          |           |
| 151143                                                       | Computer Network Architects                                |                           |                 |            |                     | <b>070810</b>     | 14    | 8                | 6                | 32.8                       |         |          | Y         |
| 192041                                                       | Environmental Scientists and Specialists, Including Health | 171                       | Bachelor's      | None       | None                | 030100            | 1     |                  | 1                | 2.0                        | 31      |          |           |
| 192041                                                       | Environmental Scientists and Specialists, Including Health |                           |                 |            |                     | 030200            | 3     |                  | 3                | 4.5                        |         |          |           |
| 273041                                                       | Editors                                                    | 151                       | Bachelor's      | <5 years   | None                | 060200            | 7     |                  | 7                | 23.7                       | 32      |          |           |
| 131081                                                       | Logisticians                                               | 136                       | Bachelor's      | None       | None                | 051000            |       |                  |                  |                            | 33      |          |           |
| 292011                                                       | Medical and Clinical Laboratory Technologists              | 129                       | Bachelor's      | None       | None                | 093470            |       |                  |                  |                            | 34      |          |           |
| 273091                                                       | Interpreters and Translators                               | 122                       | Bachelor's      | None       | ST OJT              | <b>085000</b>     | 3     | 1                | 2                | 26.2                       | 35      |          | Y         |
| 273091                                                       | Interpreters and Translators                               |                           |                 |            |                     | 085010            | 5     | 2                | 3                | 20.6                       |         |          |           |
| 273091                                                       | Interpreters and Translators                               |                           |                 |            |                     | 110200            | 1     |                  | 1                | 15.0                       |         |          |           |
| 273091                                                       | Interpreters and Translators                               |                           |                 |            |                     | <b>110300</b>     | 1     |                  | 1                |                            |         | Y        |           |
| 273091                                                       | Interpreters and Translators                               |                           |                 |            |                     | 110500            | 9     |                  | 9                | 29.8                       |         |          |           |
| 113051                                                       | Industrial Production Managers                             | 120                       | Bachelor's      | ≥5 years   | None                | <b>050100</b>     | 7     | 1                | 6                | 215.2                      |         |          | Y         |
| 113051                                                       | Industrial Production Managers                             |                           |                 |            |                     | <b>050500</b>     | 13    | 1                | 12               | 394.4                      |         | Y        |           |
| 113051                                                       | Industrial Production Managers                             |                           |                 |            |                     | <b>050600</b>     | 15    | 8                | 7                | 47.3                       |         |          | Y         |
| 299011                                                       | Occupational Health and Safety Specialists                 | 116                       | Bachelor's      | None       | ST OJT              | 095600            | 5     | 2                | 3                | 5.5                        | 36      |          |           |
| 299011                                                       | Occupational Health and Safety Specialists                 |                           |                 |            |                     | 095670            | 3     | 2                | 1                | 4.5                        |         |          |           |
| 274032                                                       | Film and Video Editors                                     | 113                       | Bachelor's      | None       | None                | 060400            | 2     | 1                | 1                | 6.0                        | 37      |          |           |
| 274032                                                       | Film and Video Editors                                     |                           |                 |            |                     | 060420            | 5     | 1                | 4                | 3.7                        |         |          |           |
| 274032                                                       | Film and Video Editors                                     |                           |                 |            |                     | 061220            | 1     |                  | 1                | 6.6                        |         |          |           |
| 151199                                                       | Computer Occupations, All Other                            | 111                       | Bachelor's      | None       | None                | 061420            | 3     | 2                | 1                |                            | 38      |          |           |
| 151199                                                       | Computer Occupations, All Other                            |                           |                 |            |                     | <b>070200</b>     | 13    | 6                | 7                | 30.1                       |         |          | Y         |
| 151199                                                       | Computer Occupations, All Other                            |                           |                 |            |                     | 070600            | 3     |                  | 3                | 13.4                       |         |          |           |
| 151199                                                       | Computer Occupations, All Other                            |                           |                 |            |                     | 220610            | 1     | 1                |                  |                            |         |          |           |
| 192031                                                       | Chemists                                                   | 102                       | Bachelor's      | None       | None                | 190500            | 4     |                  | 4                | 12.1                       | 39      |          |           |
| 271025                                                       | Interior Designers                                         | 97                        | Bachelor's      | None       | None                | <b>130200</b>     | 7     | 4                | 3                | 19.2                       | 40      |          | Y         |
| 131121                                                       | Meeting, Convention, and Event Planners                    | 92                        | Bachelor's      | None       | None                | 130700            | 1     |                  | 1                | 7.0                        | 41      |          |           |
|                                                              | ST OJT- 1 month or less OJT                                |                           |                 |            |                     |                   |       |                  |                  |                            |         |          |           |

| EDD Average Annual Projected Occupational Openings 2012-2022 |                                                                        |                           |                 |            |                     | Programs of Study |       |                  |                  | Av Awards                  |         |          |           |
|--------------------------------------------------------------|------------------------------------------------------------------------|---------------------------|-----------------|------------|---------------------|-------------------|-------|------------------|------------------|----------------------------|---------|----------|-----------|
| SOC                                                          | Occupational Title                                                     | Average Annual Total Jobs | Entry Ed. Level | Work Exper | On-the-Job Training | TOP               | Total | Cert. of Achieve | Associate Degree | 2010-11 to 2014-15 Degrees | Occ Cnt | AVC AD-T | AVC AA/AS |
| 119031                                                       | Education Administrators, Preschool and Childcare Center/Program       | 79                        | Bachelor's      | <5 years   | None                | 130580            | 3     | 3                |                  |                            | 42      |          |           |
| 151141                                                       | Database Administrators                                                | 78                        | Bachelor's      | <5 years   | None                | 070800            | 2     | 2                |                  |                            | 43      |          |           |
| 251194                                                       | Vocational Education Teachers, Postsecondary                           | 78                        | Bachelor's      | <5 years   | None                | 083900            |       |                  |                  |                            | 44      |          |           |
| 112031                                                       | Public Relations and Fundraising Managers                              | 77                        | Bachelor's      | ≥5 years   | None                | 060600            | 1     |                  | 1                |                            | 45      |          |           |
| 132053                                                       | Insurance Underwriters                                                 | 75                        | Bachelor's      | None       | MT OJT              | 051200            |       |                  |                  |                            | 46      |          |           |
| 273042                                                       | Technical Writers                                                      | 75                        | Bachelor's      | <5 years   | ST OJT              | 060700            |       |                  |                  |                            | 47      |          |           |
| 112011                                                       | Advertising and Promotions Managers                                    | 74                        | Bachelor's      | <5 years   | None                | 060600            | 1     |                  | 1                |                            | 48      |          |           |
| 273022                                                       | Reporters and Correspondents                                           | 72                        | Bachelor's      | None       | None                | 060200            | 7     |                  | 7                | 23.7                       | 49      |          |           |
| 532011                                                       | Airline Pilots, Copilots, and Flight Engineers                         | 69                        | Bachelor's      | <5 years   | MT OJT              | 302020            |       |                  |                  |                            | 50      |          |           |
| 291031                                                       | Dietitians and Nutritionists                                           | 68                        | Bachelor's      | None       | I/R                 | 130600            | 2     |                  | 2                | 1.0                        | 51      |          |           |
| 291031                                                       | Dietitians and Nutritionists                                           |                           |                 |            |                     | 130620            | 3     | 2                | 1                |                            |         |          |           |
| 194021                                                       | Biological Technicians                                                 | 66                        | Bachelor's      | None       | None                | 043000            | 9     | 6                | 3                | 4.5                        | 52      |          |           |
| 193099                                                       | Social Scientists and Related Workers, All Other                       | 62                        | Bachelor's      | None       | None                | 220100            | 3     |                  | 3                | 433.0                      | 53      |          | Y         |
| 271021                                                       | Commercial and Industrial Designers                                    | 62                        | Bachelor's      | None       | None                | 100900            |       |                  |                  |                            | 54      |          |           |
| 132081                                                       | Tax Examiners and Collectors, and Revenue Agents                       | 58                        | Bachelor's      | None       | MT OJT              | 050210            |       |                  |                  |                            | 55      |          |           |
| 113061                                                       | Purchasing Managers                                                    | 56                        | Bachelor's      | ≥5 years   | None                | 050920            |       |                  |                  |                            | 56      |          |           |
| 131075                                                       | Labor Relations Specialists                                            | 56                        | Bachelor's      | None       | None                | 051600            |       |                  |                  |                            | 57      |          |           |
| 192042                                                       | Geoscientists, Except Hydrologists and Geographers                     | 54                        | Bachelor's      | None       | None                | 191400            | 6     |                  | 6                | 3.5                        | 58      | Y        |           |
| 271027                                                       | Set and Exhibit Designers                                              | 53                        | Bachelor's      | None       | None                | 095360            |       |                  |                  |                            | 59      |          |           |
| 271027                                                       | Set and Exhibit Designers                                              |                           |                 |            |                     | 100600            | 2     | 1                | 1                | 3.0                        |         |          |           |
| 271027                                                       | Set and Exhibit Designers                                              |                           |                 |            |                     | 130200            | 7     | 4                | 3                | 19.2                       |         |          | Y         |
| 274031                                                       | Camera Operators, Television, Video, and Motion Picture                | 53                        | Bachelor's      | None       | None                | 061220            | 1     |                  | 1                | 6.6                        | 60      |          |           |
|                                                              | MT OJT- mor than 1 month and up to 12 months OJT and informal training |                           |                 |            |                     |                   |       |                  |                  |                            |         |          |           |
|                                                              |                                                                        |                           |                 |            |                     |                   |       |                  |                  | Totals                     | 60      | 19       | 34        |

Sources: California Employment Department, Labor Market Information; California Community College Chancellor's Office, Curriculum Inventory and Data Mart; analysis by Cambridge West Partnership, LLC

The following table identifies occupations commonly requiring an Associate Degree where at least an average of 50 annual openings are projected to 2022. Fifteen occupations in the East Kern, Los Angeles, and Ventura County region meet these criteria. A count of the nine area community colleges providing an instructional program related to each occupation and the *average* number of degrees or certificates of achievement awarded from 2010-11 to 2014-15 is provided. A **bolded** TOP code indicates that the Antelope Valley College has created one or more AD-T or Associate Degree programs of study that are related to the occupation.

| SOC    | Occupational Title                                        | EDD Average Annual Projected Occupational Openings 2012-2022 |                 |            |                     | Programs of Study |       |                  |                  | Av. Awards                 | Occ Cnt | AVC AD-T | AVC AA/AS |
|--------|-----------------------------------------------------------|--------------------------------------------------------------|-----------------|------------|---------------------|-------------------|-------|------------------|------------------|----------------------------|---------|----------|-----------|
|        |                                                           | Average Annual Total Jobs                                    | Entry Ed. Level | Work Exper | On-the-Job Training | TOP               | Total | Cert. of Achieve | Associate Degree | 2010-11 to 2014-15 Degrees |         |          |           |
| 291141 | Registered Nurses                                         | 2,580                                                        | Associate       | None       | None                | <b>123010</b>     | 9     | 1                | 8                | 566.4                      | 1       |          | Y         |
| 252011 | Preschool Teachers, Except Special Education              | 607                                                          | Associate       | None       | None                | <b>130500</b>     | 40    | 21               | 19               | 274.5                      | 2       |          | Y         |
| 252011 | Preschool Teachers, Except Special Education              |                                                              | Associate       |            |                     | 130540            | 3     | 3                |                  |                            |         |          |           |
| 232011 | Paralegals and Legal Assistants                           | 317                                                          | Associate       | None       | None                | 140200            | 8     | 4                | 4                | 39.7                       | 3       |          |           |
| 292012 | Medical and Clinical Laboratory Technicians               | 317                                                          | Associate       | None       | None                | 043000            | 9     | 6                | 3                | 4.5                        | 4       |          |           |
| 292012 | Medical and Clinical Laboratory Technicians               |                                                              | Associate       |            |                     | 120500            | 1     |                  | 1                | 9.7                        |         |          |           |
| 292021 | Dental Hygienists                                         | 310                                                          | Associate       | None       | None                | 124020            | 3     | 1                | 2                | 35.1                       | 5       |          |           |
| 151134 | Web Developers                                            | 281                                                          | Associate       | None       | None                | 061430            | 5     | 3                | 2                | 6.8                        | 6       |          |           |
| 151134 | Web Developers                                            |                                                              | Associate       |            |                     | 070600            | 3     |                  | 3                | 13.4                       |         |          |           |
| 151134 | Web Developers                                            |                                                              | Associate       |            |                     | <b>070710</b>     | 5     | 4                | 1                | 3.6                        |         |          | Y         |
| 292034 | Radiologic Technologists                                  | 135                                                          | Associate       | None       | None                | <b>122500</b>     | 4     | 1                | 3                | 45.2                       | 7       |          | Y         |
| 291126 | Respiratory Therapists                                    | 128                                                          | Associate       | None       | None                | <b>121000</b>     | 3     | 1                | 2                | 30.0                       | 8       |          | Y         |
| 173023 | Electrical and Electronics Engineering Technicians        | 104                                                          | Associate       | None       | None                | <b>092400</b>     | 7     | 3                | 4                | 4.8                        | 9       |          | Y         |
| 173023 | Electrical and Electronics Engineering Technicians        |                                                              | Associate       |            |                     | <b>093400</b>     | 10    | 6                | 4                | 17.8                       |         |          | Y         |
| 173023 | Electrical and Electronics Engineering Technicians        |                                                              | Associate       |            |                     | 093410            | 4     | 2                | 2                | 8.2                        |         |          |           |
| 173023 | Electrical and Electronics Engineering Technicians        |                                                              | Associate       |            |                     | 093430            | 1     | 1                |                  |                            |         |          |           |
| 173023 | Electrical and Electronics Engineering Technicians        |                                                              | Associate       |            |                     | 095220            | 4     | 2                | 2                | 5.4                        |         |          |           |
| 194099 | Life, Physical, and Social Science Technicians, All Other | 104                                                          | Associate       | None       | None                | 043000            | 9     | 6                | 3                | 4.5                        | 10      |          |           |
| 151152 | Computer Network Support Specialists                      | 72                                                           | Associate       | None       | None                | 070600            | 3     |                  | 3                | 13.4                       | 11      |          |           |
| 151152 | Computer Network Support Specialists                      |                                                              | Associate       |            |                     | 070800            | 2     | 2                |                  |                            |         |          |           |
| 151152 | Computer Network Support Specialists                      |                                                              | Associate       |            |                     | <b>070810</b>     | 14    | 8                | 6                | 32.8                       |         |          | Y         |
| 292032 | Diagnostic Medical Sonographers                           | 67                                                           | Associate       | None       | None                | 122700            |       |                  |                  |                            | 12      |          |           |
| 173029 | Engineering Technicians, Except Drafters, All Other       | 63                                                           | Associate       | None       | None                | 092400            | 7     | 3                | 4                | 4.8                        | 13      |          |           |
| 173029 | Engineering Technicians, Except Drafters, All Other       |                                                              | Associate       |            |                     | 099900            | 6     | 5                | 1                | 3.3                        |         |          |           |
| 312021 | Physical Therapist Assistants                             | 58                                                           | Associate       | None       | None                | 122200            |       |                  |                  |                            | 14      |          |           |
| 194091 | Environ Science and Protection Tech, Including Health     | 55                                                           | Associate       | None       | None                | 192000            |       |                  |                  |                            | 15      |          |           |
| 292056 | Veterinary Technologists and Technicians                  | 51                                                           | Associate       | None       | None                | 010210            |       |                  |                  |                            | 16      |          |           |
|        |                                                           |                                                              |                 |            |                     |                   |       |                  |                  | <i>Totals</i>              | 15      | 0        | 8         |

The following table identifies occupations commonly requiring a Postsecondary Certificate where at least an average of 50 annual openings are projected to 2022. Twenty occupations in the East Kern, Los Angeles, and Ventura County region meet these criteria. A count of the nine area community colleges providing an instructional program related to each occupation and the *average* number of degrees or certificates of achievement awarded from 2010-11 to 2014-15 is provided. A **bolded** TOP code indicates that the Antelope Valley College has created one or more Associate Degree or Certificate of Achievement programs of study that are related to the occupation.

| EDD Average Annual Projected Occupational Openings 2012-2022           |                                                                               |                             |                 |            |                                                     | Programs of Study |       |                  |                  | Av Awards 2010-11 to 2014-15 |         |         |            |                     |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------|-----------------|------------|-----------------------------------------------------|-------------------|-------|------------------|------------------|------------------------------|---------|---------|------------|---------------------|
| SOC                                                                    | Occupational Title                                                            | Average Annual Total Jobs   | Entry Ed. Level | Work Exper | On-the-Job Training                                 | TOP               | Total | Cert. of Achieve | Associate Degree | Cert of Achievement          | Degrees | Occ Cnt | AVC AA/ AS | Cert of Achievement |
| 311014                                                                 | Nursing Assistants                                                            | 1,298                       | Certificate     | None       | None                                                | 120100            | 1     |                  | 1                |                              | 25.4    | 1       |            |                     |
| 311014                                                                 | Nursing Assistants                                                            |                             |                 |            |                                                     | 123030            | *     |                  |                  | 106.5                        |         |         |            |                     |
| 319092                                                                 | Medical Assistants                                                            | 1,127                       | Certificate     | None       | None                                                | <b>120800</b>     | 5     | 2                | 3                | 9.2                          | 9.3     | 2       | Y          | Y                   |
| 319092                                                                 | Medical Assistants                                                            |                             |                 |            |                                                     | <b>120810</b>     | 3     | 2                | 1                | 14.9                         | 4.8     |         | Y          | Y                   |
| 292061                                                                 | Licensed Practical and Licensed Vocational Nurses                             | 1,109                       | Certificate     | None       | None                                                | <b>123020</b>     | 4     | 3                | 1                | 52.2                         | 9.0     | 3       |            | Y                   |
| 533032                                                                 | Heavy and Tractor-Trailer Truck Drivers                                       | 1,047                       | Certificate     | None       | ST OJT                                              | 094750            |       |                  |                  |                              |         | 4       |            |                     |
| 395012                                                                 | Hairdressers, Hairstylists, and Cosmetologists                                | 486                         | Certificate     | None       | None                                                | 300700            |       |                  |                  |                              |         | 5       |            |                     |
| 319091                                                                 | Dental Assistants                                                             | 450                         | Certificate     | None       | None                                                | 124010            | 3     | 2                | 1                | 19.8                         | 4.5     | 6       |            |                     |
| 492022                                                                 | Telecommunications Equipment Installers and Repairers, Except Line Installers | 384                         | Certificate     | None       | MT OJT                                              | 093430            | 1     | 1                |                  | 1.0                          |         | 7       |            |                     |
| 332011                                                                 | Firefighters                                                                  | 292                         | Certificate     | None       | LT OJT                                              | <b>213300</b>     | 20    | 10               | 10               | 60.0                         | 122.1   | 8       | Y          | Y                   |
| 332011                                                                 | Firefighters                                                                  |                             |                 |            |                                                     | <b>213310</b>     | 3     | 1                | 2                |                              | 4.2     |         | Y          | Y                   |
| 332011                                                                 | Firefighters                                                                  |                             |                 |            |                                                     | <b>213350</b>     | 5     | 5                |                  | 28.6                         |         |         |            | Y                   |
| 499021                                                                 | Heating, Air Conditioning, and Refrigeration Mechanics and Installers         | 243                         | Certificate     | None       | LT OJT                                              | <b>094600</b>     | 8     | 4                | 4                | 58.4                         | 11.4    | 9       | Y          | Y                   |
| 292071                                                                 | Medical Records and Health Information Technicians                            | 233                         | Certificate     | None       | None                                                | 122300            | 3     | 2                | 1                |                              |         | 10      |            |                     |
| 292041                                                                 | Emergency Medical Technicians and Paramedics                                  | 213                         | Certificate     | None       | None                                                | 125000            | *     |                  |                  | 104.2                        |         | 11      |            |                     |
| 292041                                                                 | Emergency Medical Technicians and Paramedics                                  |                             |                 |            |                                                     | 125100            | 6     | 3                | 3                | 20.2                         | 16.0    |         |            |                     |
| MT OJT- mor than 1 month and up to 12 months OJT and informal training |                                                                               | ST OJT- 1 month or less OJT |                 |            | LT OJT- >12 months and formal classroom instruction |                   |       |                  |                  |                              |         |         |            |                     |

Sources: California Employment Department, Labor Market Information; California Community College Chancellor's Office, Curriculum Inventory and Data Mart; analysis by Cambridge West Partnership, LLC

| EDD Average Annual Projected Occupational Openings 2012-2022           |                                            |                             |                 |                                                     |                     | Programs of Study |       |                  |                  | Av Awards 2010-11 to 2014-15 |         |         |           |                     |
|------------------------------------------------------------------------|--------------------------------------------|-----------------------------|-----------------|-----------------------------------------------------|---------------------|-------------------|-------|------------------|------------------|------------------------------|---------|---------|-----------|---------------------|
| SOC                                                                    | Occupational Title                         | Average Annual Total Jobs   | Entry Ed. Level | Work Exper                                          | On-the-Job Training | TOP               | Total | Cert. of Achieve | Associate Degree | Cert of Achievement          | Degrees | Occ Cnt | AVC AA/AS | Cert of Achievement |
| 493011                                                                 | Aircraft Mechanics and Service Technicians | 175                         | Certificate     | None                                                | None                | 095000            | 3     | 1                | 2                | 30.0                         | 3.8     | 12      | Y         | Y                   |
| 493011                                                                 | Aircraft Mechanics and Service Technicians |                             |                 |                                                     |                     | 095010            | 3     | 2                | 1                | 34.3                         | 5.3     |         | Y         | Y                   |
| 493011                                                                 | Aircraft Mechanics and Service Technicians |                             |                 |                                                     |                     | 095020            | 3     | 2                | 1                | 57.2                         | 5.0     |         | Y         | Y                   |
| 493011                                                                 | Aircraft Mechanics and Service Technicians |                             |                 |                                                     |                     | 095050            | 2     | 1                | 1                | 26.0                         | 8.2     |         | Y         | Y                   |
| 274011                                                                 | Audio and Video Equipment Technicians      | 164                         | Certificate     | None                                                | ST OJT              | 100500            | 2     | 2                |                  | 8.4                          |         | 13      |           | Y                   |
| 395092                                                                 | Manicurists and Pedicurists                | 157                         | Certificate     | None                                                | None                | 300700            |       |                  |                  |                              |         | 14      |           |                     |
| 254031                                                                 | Library Technicians                        | 155                         | Certificate     | None                                                | None                | 160200            |       |                  |                  | 1.0                          | 1.7     | 15      |           |                     |
| 319097                                                                 | Phlebotomists                              | 151                         | Certificate     | None                                                | None                | 120510            |       |                  |                  |                              |         | 16      |           |                     |
| 319011                                                                 | Massage Therapists                         | 116                         | Certificate     | None                                                | None                | 126200            | 1     | 1                |                  |                              |         | 17      |           |                     |
| 292055                                                                 | Surgical Technologists                     | 90                          | Certificate     | None                                                | None                | 121700            |       |                  |                  |                              |         | 18      |           |                     |
| 274014                                                                 | Sound Engineering Technicians              | 63                          | Certificate     | None                                                | ST OJT              | 100500            | 2     | 2                |                  | 8.4                          |         | 19      |           |                     |
| 274014                                                                 | Sound Engineering Technicians              |                             |                 |                                                     |                     | 100600            | 2     | 1                | 1                | 3.5                          | 3.0     |         |           |                     |
| 395094                                                                 | Skincare Specialists                       | 59                          | Certificate     | None                                                | None                | 300700            |       |                  |                  |                              |         | 20      |           |                     |
| MT OJT- mor than 1 month and up to 12 months OJT and informal training |                                            | ST OJT- 1 month or less OJT |                 | LT OJT- >12 months and formal classroom instruction |                     |                   |       |                  |                  |                              | Totals  | 20      | 10        | 13                  |

Sources: California Employment Department, Labor Market Information; California Community College Chancellor's Office, Curriculum Inventory and Data Mart; analysis by Cambridge West Partnership, LLC

The following table identifies occupations commonly requiring “some college” where at least an average of 50 annual openings are projected to 2022. Three occupations in the East Kern, Los Angeles, and Ventura County region meet these criteria. A count of the nine area community colleges providing an instructional program related to each occupation and the *average* number of degrees or certificates of achievement awarded from 2010-11 to 2014-15 is provided. A **bolded** TOP code indicates that the Antelope Valley College has created one or more Associate Degree or Certificate of Achievement programs of study that are related to the occupation.

| EDD Average Annual Projected Occupational Openings 2012-2022 |                                                                        |                           |                 |            |                     | Programs of Study |       |                  |                  | Av Awards 2010-11 to 2014-15 |               |         |           |                       |
|--------------------------------------------------------------|------------------------------------------------------------------------|---------------------------|-----------------|------------|---------------------|-------------------|-------|------------------|------------------|------------------------------|---------------|---------|-----------|-----------------------|
| SOC                                                          | Occupational Title                                                     | Average Annual Total Jobs | Entry Ed. Level | Work Exper | On-the-Job Training | TOP               | Total | Cert. of Achieve | Associate Degree | Certificates of Achievement  | Degrees       | Occ Cnt | AVC AA/AS | Certif of Achievement |
| 259041                                                       | Teacher Assistants                                                     | 1,373                     | Some College    | None       | None                | <b>080200</b>     | 2     | 1                | 1                | 6.2                          | 4.2           | 1       | Y         | Y                     |
| 259041                                                       | Teacher Assistants                                                     |                           |                 |            |                     | 080210            | 1     | 1                |                  | 1.0                          |               |         |           |                       |
| 259041                                                       | Teacher Assistants                                                     |                           |                 |            |                     | 080900            | 2     | 1                | 1                | 5.6                          | 2.0           |         |           |                       |
| 151151                                                       | Computer User Support Specialists                                      | 592                       | Some College    | None       | MT OJT              | <b>070200</b>     | 13    | 6                | 7                | 13.0                         | 30.1          | 2       | Y         | Y                     |
| 492011                                                       | Computer, Automated Teller, and Office Machine Repairers               | 78                        | Some College    | None       | None                | 093410            | 4     | 2                | 2                | 2.0                          | 8.2           | 3       |           |                       |
|                                                              | MT OJT- mor than 1 month and up to 12 months OJT and informal training |                           |                 |            |                     |                   |       |                  |                  |                              | <i>Totals</i> | 3       | 2         | 2                     |

Sources: California Employment Department, Labor Market Information; California Community College Chancellor’s Office, Curriculum Inventory and Data Mart; analysis by Cambridge West Partnership, LLC

The following table identifies occupations commonly requiring High School Diploma where at least an average of 50 annual openings are projected to 2022. Ninety-two occupations in the East Kern, Los Angeles, and Ventura County region meet these criteria. A count of the nine area community colleges providing an instructional program related to each occupation and the *average* number of degrees or certificates awarded from 2010-11 to 2014-15 is provided. A **bolded** TOP code indicates that the Antelope Valley College has created one or more AD-T, Associate Degree, or Certificate of Achievement programs of study that are related to the occupation.

| EDD Average Annual Projected Occupational Openings 2012-2022 |                                                                 |                                                                         |                 |            |                     | Programs of Study |       |                  |                  | Av Awards 2010-11 to 2014-15 |         |             |         |            |                     |  |  |
|--------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------|-----------------|------------|---------------------|-------------------|-------|------------------|------------------|------------------------------|---------|-------------|---------|------------|---------------------|--|--|
| SOC                                                          | Occupational Title                                              | Average Annual Total Jobs                                               | Entry Ed. Level | Work Exper | On-the-Job Training | TOP               | Total | Cert. of Achieve | Associate Degree | Cert. of Achieve             | Degrees | Other Cert. | Occ Cnt | AVC AA/ AS | Cert of Achievement |  |  |
| 434051                                                       | Customer Service Representatives                                | 2,384                                                                   | HS Diploma      | None       | ST OJT              | 051800            |       |                  |                  |                              |         |             | 1       |            |                     |  |  |
| 431011                                                       | First-Line Supervisors of Office and Admin Support Workers      | 1,941                                                                   | HS Diploma      | <5 years   | None                | 050630            | 4     | 2                | 2                | 14.8                         | 4.0     |             | 2       |            |                     |  |  |
| 436014                                                       | Secretaries & Admin Assistants, Except Legal, Medical, & Exec   | 1,870                                                                   | HS Diploma      | None       | ST OJT              | <b>051400</b>     | 30    | 17               | 13               | 68.6                         | 48.9    | 4.0         | 3       | Y          | Y                   |  |  |
| 411011                                                       | First-Line Supervisors of Retail Sales Workers                  | 1,424                                                                   | HS Diploma      | <5 years   | None                | 050650            | 3     | 3                |                  | 4.5                          |         |             | 4       |            |                     |  |  |
| 413099                                                       | Sales Representatives, Services, All Other                      | 1,420                                                                   | HS Diploma      | None       | ST OJT              | 050940            |       |                  |                  |                              |         |             | 5       |            |                     |  |  |
| 414012                                                       | Sales Rep, Wholesale & Manuf, Except Tech & Scientific Products | 1,365                                                                   | HS Diploma      | None       | MT OJT              | <b>050900</b>     | 7     | 3                | 4                | 13.4                         | 25.8    |             | 6       | Y          | Y                   |  |  |
| 351012                                                       | First-Line Supervisors of Food Preparation and Serving Workers  | 1,324                                                                   | HS Diploma      | <5 years   | None                | 130600            | 2     |                  | 2                | 1.0                          | 1.0     |             | 7       |            |                     |  |  |
| 351012                                                       | First-Line Supervisors of Food Preparation and Serving Workers  |                                                                         |                 |            |                     | 130620            | 3     | 2                | 1                | 4.5                          |         |             |         |            |                     |  |  |
| 351012                                                       | First-Line Supervisors of Food Preparation and Serving Workers  |                                                                         |                 |            |                     | 130630            | 8     | 5                | 3                | 68.0                         | 14.6    |             |         |            |                     |  |  |
| 351012                                                       | First-Line Supervisors of Food Preparation and Serving Workers  |                                                                         |                 |            |                     | 130700            | 1     |                  | 1                |                              | 7.0     |             |         |            |                     |  |  |
| 351012                                                       | First-Line Supervisors of Food Preparation and Serving Workers  |                                                                         |                 |            |                     | 130710            | 8     | 3                | 5                | 10.7                         | 23.2    |             |         |            |                     |  |  |
| 399011                                                       | Childcare Workers                                               | 1,216                                                                   | HS Diploma      | None       | ST OJT              | <b>130500</b>     | 40    | 21               | 19               | 507.2                        | 274.5   | 2.0         | 8       | Y          | Y                   |  |  |
| 399011                                                       | Childcare Workers                                               |                                                                         |                 |            |                     | 130540            | 3     | 3                |                  | 28.8                         |         |             |         |            |                     |  |  |
| 399011                                                       | Childcare Workers                                               |                                                                         |                 |            |                     | <b>130550</b>     | 4     | 3                | 1                | 3.0                          | 1.0     |             |         | Y          | Y                   |  |  |
| 399011                                                       | Childcare Workers                                               |                                                                         |                 |            |                     | 130590            | 2     | 2                |                  | 5.4                          |         |             |         |            |                     |  |  |
| 433031                                                       | Bookkeeping, Accounting, and Auditing Clerks                    |                                                                         |                 |            |                     | <b>050200</b>     | 15    | 7                | 8                | 81.4                         | 182.8   |             | 9       | Y          | Y                   |  |  |
| 333051                                                       | Police and Sheriff's Patrol Officers                            | 1,043                                                                   | HS Diploma      | None       | MT OJT              | <b>210500</b>     | 21    | 4                | 17               | 57.9                         | 429.8   |             | 10      | Y          |                     |  |  |
| 131199                                                       | Business Operations Specialists, All Other                      | 925                                                                     | HS Diploma      | None       | None                | <b>050640</b>     | 5     | 2                | 3                | 5.6                          | 20.2    |             | 11      | Y          | Y                   |  |  |
| 436013                                                       | Medical Secretaries                                             | 839                                                                     | HS Diploma      | None       | MT OJT              | 051420            | 5     | 3                | 2                | 23.3                         | 6.3     |             | 12      |            |                     |  |  |
| 436013                                                       | Medical Secretaries                                             |                                                                         |                 |            |                     | <b>120820</b>     | 3     | 2                | 1                | 15.3                         | 5.8     |             |         | Y          | Y                   |  |  |
| 433071                                                       | Tellers                                                         | 808                                                                     | HS Diploma      | None       | ST OJT              | 050400            | 1     |                  | 1                |                              | 1.5     |             | 13      |            |                     |  |  |
| ST OJT- 1 month or less OJT                                  |                                                                 | MT OJT- more than 1 month and up to 12 months OJT and informal training |                 |            |                     |                   |       |                  |                  |                              |         |             |         |            |                     |  |  |

Sources: California Employment Department, Labor Market Information; California Community College Chancellor's Office, Curriculum Inventory and Data Mart; analysis by Cambridge West Partnership, LLC



|                             | EDD Average Annual Projected Occupational Openings 2012-2022   |                                                                        |                 |            |                     | Programs of Study |       |                  |                  | Awards 2010-11 to 2014-15 |         |             |  |         |            |                     |
|-----------------------------|----------------------------------------------------------------|------------------------------------------------------------------------|-----------------|------------|---------------------|-------------------|-------|------------------|------------------|---------------------------|---------|-------------|--|---------|------------|---------------------|
| SOC                         | Occupational Title                                             | Average Annual Total Jobs                                              | Entry Ed. Level | Work Exper | On-the-Job Training | TOP               | Total | Cert. of Achieve | Associate Degree | Cert. of Achieve          | Degrees | Other Cert. |  | Occ Cnt | AVC AA/ AS | Cert of Achievement |
| 119199                      | Managers, All Other                                            | 807                                                                    | HS Diploma      | <5 years   | None                | 050100            | 7     | 1                | 6                | 47.0                      | 215.2   |             |  | 14      | Y          | Y                   |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 050500            | 13    | 1                | 12               | 35.0                      | 394.4   |             |  |         | Y          |                     |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 050600            | 15    | 8                | 7                | 32.7                      | 47.3    |             |  |         | Y          | Y                   |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 050640            | 5     | 2                | 3                | 5.6                       | 20.2    |             |  |         | Y          | Y                   |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 200100            | 13    |                  | 13               |                           | 361.1   | 1.0         |  |         | Y          |                     |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 220100            | 3     |                  | 3                |                           | 433.0   |             |  |         | Y          |                     |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 220200            | 9     |                  | 9                |                           | 30.0    |             |  |         | Y          |                     |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 220220            | 1     |                  | 1                |                           | 2.2     |             |  |         |            |                     |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 220400            | 5     |                  | 5                |                           | 16.2    |             |  |         | Y          |                     |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 220500            | 11    |                  | 11               |                           | 109.7   |             |  |         | Y          |                     |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 220600            | 6     |                  | 6                |                           | 7.5     |             |  |         | Y          |                     |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 220700            | 10    |                  | 10               |                           | 76.2    |             |  |         | Y          |                     |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 220800            | 12    |                  | 12               |                           | 225.9   |             |  |         | Y          |                     |
| 119199                      | Managers, All Other                                            |                                                                        |                 |            |                     | 221000            | 1     |                  | 1                |                           | 3.8     |             |  |         |            |                     |
| 493023                      | Automotive Service Technicians and Mechanics                   | 758                                                                    | HS Diploma      | None       | LT OJT              | 094800            | 19    | 12               | 7                | 117.8                     | 27.3    | 11.0        |  | 15      | Y          | Y                   |
| 472031                      | Carpenters                                                     | 740                                                                    | HS Diploma      | None       | APP                 | 095200            | 4     | 2                | 2                | 6.9                       | 3.2     |             |  | 16      |            |                     |
| 472031                      | Carpenters                                                     |                                                                        |                 |            |                     | 095210            | 2     | 1                | 1                |                           |         |             |  |         |            |                     |
| 533033                      | Light Truck or Delivery Services Drivers                       | 671                                                                    | HS Diploma      | None       | ST OJT              | 094750            |       |                  |                  |                           |         |             |  | 17      |            |                     |
| 211093                      | Social and Human Service Assistants                            | 662                                                                    | HS Diploma      | None       | ST OJT              | 130100            | 7     | 1                | 6                |                           | 2.5     |             |  | 18      | Y          |                     |
| 211093                      | Social and Human Service Assistants                            |                                                                        |                 |            |                     | 130800            | 1     |                  | 1                |                           | 1.0     |             |  |         |            |                     |
| 211093                      | Social and Human Service Assistants                            |                                                                        |                 |            |                     | 210400            | 8     | 3                | 5                | 34.5                      | 34.9    | 11.0        |  |         |            |                     |
| 211093                      | Social and Human Service Assistants                            |                                                                        |                 |            |                     | 210440            | 6     | 3                | 3                | 42.3                      | 13.0    |             |  |         |            |                     |
| 433011                      | Bill and Account Collectors                                    | 633                                                                    | HS Diploma      | None       | MT OJT              | 050400            | 1     |                  | 1                |                           | 1.5     |             |  | 19      |            |                     |
| 472111                      | Electricians                                                   | 523                                                                    | HS Diploma      | None       | APP                 | 095220            | 4     | 2                | 2                | 22.0                      | 5.4     |             |  | 20      | Y          | Y                   |
| 119051                      | Food Service Managers                                          | 461                                                                    | HS Diploma      | <5 years   | None                | 130620            | 3     | 2                | 1                | 4.5                       |         |             |  | 21      |            |                     |
| 119051                      | Food Service Managers                                          |                                                                        |                 |            |                     | 130700            | 1     |                  | 1                |                           | 7.0     |             |  |         |            |                     |
| 119051                      | Food Service Managers                                          |                                                                        |                 |            |                     | 130710            | 8     | 3                | 5                | 10.7                      | 23.2    |             |  |         |            |                     |
| 119051                      | Food Service Managers                                          |                                                                        |                 |            |                     | 130720            | 3     | 1                | 2                |                           | 2.2     |             |  |         |            |                     |
| 491011                      | First-Line Supervisors of Mechanics, Installers, and Repairers | 457                                                                    | HS Diploma      | <5 years   | None                | 093440            |       |                  |                  |                           |         |             |  | 22      | Y          | Y                   |
| 119141                      | Property, Real Estate, and Community Association Managers      | 416                                                                    | HS Diploma      | <5 years   | None                | 051100            | 11    | 9                | 2                | 12.5                      | 6.8     |             |  | 23      | Y          | Y                   |
| 119141                      | Property, Real Estate, and Community Association Managers      |                                                                        |                 |            |                     | 051110            | 5     | 3                | 2                |                           | 4.0     |             |  |         | Y          | Y                   |
| 436011                      | Executive Secretaries and Executive Administrative Assistants  | 395                                                                    | HS Diploma      | <5 years   | None                | 051400            | 30    | 17               | 13               | 68.6                      | 48.9    | 4.0         |  |         | Y          | Y                   |
| 435061                      | Production, Planning, and Expediting Clerks                    | 392                                                                    | HS Diploma      | None       | MT OJT              | 051000            |       |                  |                  |                           |         |             |  | 24      |            |                     |
| 471011                      | First-Line Supervisors of Const Trades and Extraction Workers  | 388                                                                    | HS Diploma      | ≥5 years   | None                | 095200            | 4     | 2                | 2                | 6.9                       | 3.2     |             |  | 15      |            |                     |
| 471011                      | First-Line Supervisors of Const Trades and Extraction Workers  |                                                                        |                 |            |                     | 095210            | 2     | 1                | 1                |                           |         |             |  |         |            |                     |
| 471011                      | First-Line Supervisors of Const Trades and Extraction Workers  |                                                                        |                 |            |                     | 095220            | 4     | 2                | 2                | 22.0                      | 5.4     |             |  |         | Y          | Y                   |
| 471011                      | First-Line Supervisors of Const Trades and Extraction Workers  |                                                                        |                 |            |                     | 095700            | 5     | 3                | 2                | 15.9                      | 9.0     |             |  |         |            |                     |
| 471011                      | First-Line Supervisors of Const Trades and Extraction Workers  |                                                                        |                 |            |                     | 210210            | 1     | 1                |                  | 1.5                       |         |             |  |         |            |                     |
| ST OJT- 1 month or less OJT |                                                                | MT OJT- mor than 1 month and up to 12 months OJT and informal training |                 |            |                     |                   |       |                  |                  |                           |         |             |  |         |            |                     |

Sources: California Employment Department, Labor Market Information; California Community College Chancellor's Office, Curriculum Inventory and Data Mart; analysis by Cambridge West Partnership, LLC

|                                                                        | EDD Average Annual Projected Occupational Openings 2012-2022    |                           |                 |                             |                     | Programs of Study                                   |       |                  |                  | Awards 2010-11 to 2014-15 |         |             |         |            |                     |  |  |
|------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------|-----------------|-----------------------------|---------------------|-----------------------------------------------------|-------|------------------|------------------|---------------------------|---------|-------------|---------|------------|---------------------|--|--|
| SOC                                                                    | Occupational Title                                              | Average Annual Total Jobs | Entry Ed. Level | Work Exper                  | On-the-Job Training | TOP                                                 | Total | Cert. of Achieve | Associate Degree | Cert. of Achieve          | Degrees | Other Cert. | Occ Cnt | AVC AA/ AS | Cert of Achievement |  |  |
| 519061                                                                 | Inspectors, Testers, Sorters, Samplers, and Weighers            | 375                       | HS Diploma      | None                        | MT OJT              | 043000                                              | 9     | 6                | 3                | 13.3                      | 4.5     |             | 26      |            |                     |  |  |
| 519061                                                                 | Inspectors, Testers, Sorters, Samplers, and Weighers            |                           |                 |                             |                     | 095600                                              | 5     | 2                | 3                | 10.5                      | 5.5     |             |         |            |                     |  |  |
| 119013                                                                 | Farmers, Ranchers, and Other Agricultural Managers              | 356                       | HS Diploma      | ≥5 years                    | None                | 010200                                              | 5     | 2                | 3                | 133.0                     | 61.9    |             | 27      |            |                     |  |  |
| 119013                                                                 | Farmers, Ranchers, and Other Agricultural Managers              |                           |                 |                             |                     | 010300                                              | 4     | 1                | 3                | 3.0                       | 6.5     |             |         |            |                     |  |  |
| 119013                                                                 | Farmers, Ranchers, and Other Agricultural Managers              |                           |                 |                             |                     | 010900                                              | 6     | 2                | 4                | 6.1                       | 12.5    |             |         | Y          | Y                   |  |  |
| 119013                                                                 | Farmers, Ranchers, and Other Agricultural Managers              |                           |                 |                             |                     | 010930                                              | 2     | 2                |                  | 3.0                       |         |             |         |            |                     |  |  |
| 119013                                                                 | Farmers, Ranchers, and Other Agricultural Managers              |                           |                 |                             |                     | 011200                                              | 3     | 1                | 2                | 2.3                       | 4.7     |             |         |            |                     |  |  |
| 333012                                                                 | Correctional Officers and Jailers                               | 347                       | HS Diploma      | None                        | MT OJT              | 210510                                              | 3     | 1                | 2                | 1.0                       | 4.1     |             | 28      |            |                     |  |  |
| 333012                                                                 | Correctional Officers and Jailers                               |                           |                 |                             |                     | 210520                                              | 1     | 1                |                  |                           |         |             |         |            |                     |  |  |
| 413021                                                                 | Insurance Sales Agents                                          | 334                       | HS Diploma      | None                        | MT OJT              | 051200                                              |       |                  |                  |                           |         |             | 29      |            |                     |  |  |
| 435011                                                                 | Cargo and Freight Agents                                        | 319                       | HS Diploma      | None                        | ST OJT              | 051000                                              |       |                  |                  |                           |         |             | 30      |            |                     |  |  |
| 472152                                                                 | Plumbers, Pipefitters, and Steamfitters                         | 319                       | HS Diploma      | None                        | APP                 | 095230                                              | 2     | 1                | 1                | 8.5                       |         |             | 31      |            |                     |  |  |
| 533021                                                                 | Bus Drivers, Transit and Intercity                              | 294                       | HS Diploma      | None                        | MT OJT              | 094750                                              |       |                  |                  |                           |         |             | 32      |            |                     |  |  |
| 514041                                                                 | Machinists                                                      | 292                       | HS Diploma      | None                        | LT OJT              | 095600                                              | 5     | 2                | 3                | 10.5                      | 5.5     |             | 33      |            |                     |  |  |
| 514041                                                                 | Machinists                                                      |                           |                 |                             |                     | 095630                                              | 1     | 1                |                  | 22.6                      |         | 54.3        |         |            |                     |  |  |
| 533022                                                                 | Bus Drivers, School or Special Client                           | 288                       | HS Diploma      | None                        | ST OJT              | 094750                                              |       |                  |                  |                           |         |             | 34      |            |                     |  |  |
| 531031                                                                 | First-Line Super of Transp & Material-Move Machine & Vehicle Op | 282                       | HS Diploma      | <5 years                    | None                | 051000                                              |       |                  |                  |                           |         |             | 35      |            |                     |  |  |
| 292052                                                                 | Pharmacy Technicians                                            | 249                       | HS Diploma      | None                        | MT OJT              | 122100                                              |       |                  |                  |                           |         |             | 36      |            |                     |  |  |
| 131022                                                                 | Wholesale and Retail Buyers, Except Farm Products               | 245                       | HS Diploma      | None                        | LT OJT              | 050900                                              | 7     | 3                | 4                | 13.4                      | 25.8    |             | 37      | Y          | Y                   |  |  |
| 131031                                                                 | Claims Adjusters, Examiners, and Investigators                  | 238                       | HS Diploma      | None                        | LT OJT              | 051200                                              |       |                  |                  |                           |         |             | 38      |            |                     |  |  |
| 433051                                                                 | Payroll and Timekeeping Clerks                                  | 233                       | HS Diploma      | None                        | MT OJT              | 050200                                              | 15    | 7                | 8                | 81.4                      | 182.8   |             | 39      | Y          | Y                   |  |  |
| 272042                                                                 | Musicians and Singers                                           | 230                       | HS Diploma      | None                        | LT OJT              | 100400                                              | 12    | 1                | 11               | 4.7                       | 27.4    |             | 40      | Y          |                     |  |  |
| 493031                                                                 | Bus and Truck Mechanics and Diesel Engine Specialists           | 222                       | HS Diploma      | None                        | LT OJT              | 094700                                              |       |                  |                  |                           |         |             | 41      |            |                     |  |  |
| 399031                                                                 | Fitness Trainers and Aerobics Instructors                       | 218                       | HS Diploma      | None                        | ST OJT              | 083500                                              | 4     |                  | 4                | 7.7                       | 68.8    |             | 42      | Y          |                     |  |  |
| 399031                                                                 | Fitness Trainers and Aerobics Instructors                       |                           |                 |                             |                     | 083520                                              | 3     | 2                | 1                | 20.7                      | 8.7     |             |         |            |                     |  |  |
| 399031                                                                 | Fitness Trainers and Aerobics Instructors                       |                           |                 |                             |                     | 122800                                              | 1     |                  | 1                |                           | 4.6     |             |         |            |                     |  |  |
| 514121                                                                 | Welders, Cutters, Solderers, and Brazers                        | 214                       | HS Diploma      | None                        | MT OJT              | 095650                                              | 16    | 9                | 7                | 101.1                     | 20.8    |             | 43      | Y          | Y                   |  |  |
| 413011                                                                 | Advertising Sales Agents                                        | 211                       | HS Diploma      | None                        | MT OJT              | 050910                                              |       |                  |                  |                           |         |             | 44      |            |                     |  |  |
| 131023                                                                 | Purchasing Agents, Except Wholesale, Retail, and Farm Products  | 201                       | HS Diploma      | None                        | LT OJT              | 050900                                              | 7     | 3                | 4                | 13.4                      | 25.8    |             | 45      | Y          | Y                   |  |  |
| 292099                                                                 | Health Technologists and Technicians, All Other                 | 195                       | HS Diploma      | None                        | None                | 121100                                              |       |                  |                  |                           |         |             | 46      |            |                     |  |  |
| 472073                                                                 | Operating Engineers and Other Construction Equipment Operators  | 185                       | HS Diploma      | None                        | MT OJT              | 094730                                              | 2     | 1                | 1                | 5.0                       |         |             | 47      |            |                     |  |  |
| 419099                                                                 | Sales and Related Workers, All Other                            | 174                       | HS Diploma      | None                        | None                | 050940                                              |       |                  |                  |                           |         |             | 48      |            |                     |  |  |
| 411012                                                                 | First-Line Supervisors of Non-Retail Sales Workers              | 172                       | HS Diploma      | <5 years                    | None                | 050940                                              |       |                  |                  |                           |         |             | 49      |            |                     |  |  |
| 419022                                                                 | Real Estate Sales Agents                                        | 170                       | HS Diploma      | None                        | LT OJT              | 051100                                              | 11    | 9                | 2                | 12.5                      | 6.8     |             | 50      | Y          | Y                   |  |  |
| 113071                                                                 | Transportation, Storage, and Distribution Managers              | 149                       | HS Diploma      | ≥5 years                    | None                | 051000                                              |       |                  |                  |                           |         |             | 51      |            |                     |  |  |
| 493021                                                                 | Automotive Body and Related Repairers                           | 137                       | HS Diploma      | None                        | MT OJT              | 094900                                              | 8     | 4                | 4                | 30.6                      | 6.6     |             | 52      | Y          | Y                   |  |  |
| 271013                                                                 | Fine Artists, Including Painters, Sculptors, and Illustrators   | 133                       | HS Diploma      | None                        | LT OJT              | 100100                                              | 6     |                  | 6                |                           | 56.3    |             | 53      | Y          |                     |  |  |
| 271013                                                                 | Fine Artists, Including Painters, Sculptors, and Illustrators   |                           |                 |                             |                     | 100200                                              | 18    | 2                | 16               | 2.0                       | 85.8    |             |         | Y          |                     |  |  |
| 271013                                                                 | Fine Artists, Including Painters, Sculptors, and Illustrators   |                           |                 |                             |                     | 100210                                              | 2     |                  | 2                |                           | 1.0     |             |         |            |                     |  |  |
| 271013                                                                 | Fine Artists, Including Painters, Sculptors, and Illustrators   |                           |                 |                             |                     | 100220                                              | 1     |                  | 1                |                           |         |             |         |            |                     |  |  |
| 271013                                                                 | Fine Artists, Including Painters, Sculptors, and Illustrators   |                           |                 |                             |                     | 100230                                              | 2     | 1                | 1                |                           |         |             |         |            |                     |  |  |
| MT OJT- mor than 1 month and up to 12 months OJT and informal training |                                                                 | APP- Apprenticeship       |                 | ST OJT- 1 month or less OJT |                     | LT OJT- >12 months and formal classroom instruction |       |                  |                  |                           |         |             |         |            |                     |  |  |

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|                                                                        | EDD Average Annual Projected Occupational Openings 2012-2022                                              |                             |                 |                                                     |                     | Programs of Study |       |                  |                  | Awards 2010-11 to 2014-15 |         |             |  |         |            |                     |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------|-----------------|-----------------------------------------------------|---------------------|-------------------|-------|------------------|------------------|---------------------------|---------|-------------|--|---------|------------|---------------------|
| SOC                                                                    | Occupational Title                                                                                        | Average Annual Total Jobs   | Entry Ed. Level | Work Exper                                          | On-the-Job Training | TOP               | Total | Cert. of Achieve | Associate Degree | Cert. of Achieve          | Degrees | Other Cert. |  | Occ Cnt | AVC AA/ AS | Cert of Achievement |
| 436012                                                                 | Legal Secretaries                                                                                         | 128                         | HS Diploma      | None                                                | MT OJT              | 051410            | 1     | 1                |                  |                           |         |             |  | 54      |            |                     |
| 436012                                                                 | Legal Secretaries                                                                                         |                             |                 |                                                     |                     | 140200            | 8     | 4                | 4                | 83.8                      | 39.7    |             |  |         |            |                     |
| 493042                                                                 | Mobile Heavy Equipment Mechanics, Except Engines                                                          | 125                         | HS Diploma      | None                                                | LT OJT              | 094730            | 2     | 1                | 1                | 5.0                       |         |             |  | 55      |            |                     |
| 434131                                                                 | Loan Interviewers and Clerks                                                                              | 116                         | HS Diploma      | None                                                | ST OJT              | 050400            | 1     |                  | 1                |                           | 1.5     |             |  | 56      |            |                     |
| 351011                                                                 | Chefs and Head Cooks                                                                                      | 114                         | HS Diploma      | ≥5 years                                            | None                | 130600            | 2     |                  | 2                | 1.0                       | 1.0     |             |  | 57      |            |                     |
| 351011                                                                 | Chefs and Head Cooks                                                                                      |                             |                 |                                                     |                     | 130630            | 8     | 5                | 3                | 68.0                      | 14.6    |             |  |         |            |                     |
| 351011                                                                 | Chefs and Head Cooks                                                                                      |                             |                 |                                                     |                     | 130710            | 8     | 3                | 5                | 10.7                      | 23.2    |             |  |         |            |                     |
| 319099                                                                 | Healthcare Support Workers, All Other                                                                     | 113                         | HS Diploma      | None                                                | None                | 120830            |       |                  |                  |                           |         |             |  | 58      |            |                     |
| 515112                                                                 | Printing Press Operators                                                                                  | 112                         | HS Diploma      | None                                                | MT OJT              | 093600            |       |                  |                  |                           |         |             |  | 59      |            |                     |
| 132082                                                                 | Tax Preparers                                                                                             | 109                         | HS Diploma      | None                                                | MT OJT              | <b>050200</b>     | 15    | 7                | 8                | 81.4                      | 182.8   |             |  | 60      | Y          | Y                   |
| 433061                                                                 | Procurement Clerks                                                                                        | 105                         | HS Diploma      | None                                                | MT OJT              | 050920            |       |                  |                  |                           |         |             |  | 61      |            |                     |
| 518031                                                                 | Water and Wastewater Treatment Plant and System Operators                                                 | 97                          | HS Diploma      | None                                                | LT OJT              | 095800            | 6     | 3                | 3                | 23.0                      | 13.2    |             |  | 62      |            |                     |
| 339093                                                                 | Transportation Security Screeners                                                                         | 96                          | HS Diploma      | None                                                | ST OJT              | 210530            |       |                  |                  |                           |         |             |  | 63      |            |                     |
| 439021                                                                 | Data Entry Keyers                                                                                         | 96                          | HS Diploma      | None                                                | MT OJT              | <b>070210</b>     | 4     | 3                | 1                | 14.5                      | 5.0     |             |  | 64      | Y          | Y                   |
| 371012                                                                 | First-Line Super of Landscaping, Lawn Service, & Grounds Workers                                          | 95                          | HS Diploma      | <5 years                                            | None                | <b>010900</b>     | 6     | 2                | 4                | 6.1                       | 12.5    |             |  | 65      | Y          | Y                   |
| 371012                                                                 | First-Line Super of Landscaping, Lawn Service, & Grounds Workers                                          |                             |                 |                                                     |                     | <b>010910</b>     | 2     | 1                | 1                | 2.5                       | 1.5     |             |  |         | Y          | Y                   |
| 371012                                                                 | First-Line Super of Landscaping, Lawn Service, & Grounds Workers                                          |                             |                 |                                                     |                     | 010930            | 2     | 2                |                  | 3.0                       |         |             |  |         |            |                     |
| 472211                                                                 | Sheet Metal Workers                                                                                       | 95                          | HS Diploma      | None                                                | APP                 | 095640            | 2     | 1                | 1                | 3.3                       |         |             |  | 66      |            |                     |
| 499051                                                                 | Electrical Power-Line Installers and Repairers                                                            | 94                          | HS Diploma      | None                                                | LT OJT              | <b>093440</b>     |       |                  |                  |                           |         |             |  | 67      | Y          | Y                   |
| 518093                                                                 | Petroleum Pump System Operators, Refinery Operators, and Gaugers                                          | 94                          | HS Diploma      | None                                                | LT OJT              | 095430            |       |                  |                  |                           |         |             |  | 68      |            |                     |
| 514011                                                                 | Computer-Controlled Machine Tool Operators, Metal and Plastic                                             | 92                          | HS Diploma      | None                                                | MT OJT              | 095600            | 5     | 2                | 3                | 10.5                      | 5.5     |             |  | 69      |            |                     |
| 514011                                                                 | Computer-Controlled Machine Tool Operators, Metal and Plastic                                             |                             |                 |                                                     |                     | 095630            | 1     | 1                |                  | 22.6                      |         | 54.3        |  |         |            |                     |
| 532031                                                                 | Flight Attendants                                                                                         | 91                          | HS Diploma      | <5 years                                            | MT OJT              | 302040            |       |                  |                  |                           |         |             |  | 70      |            |                     |
| 333021                                                                 | Detectives and Criminal Investigators                                                                     | 89                          | HS Diploma      | <5 years                                            | MT OJT              | <b>210500</b>     | 21    | 4                | 17               | 57.9                      | 429.8   |             |  | 71      | Y          |                     |
| 434181                                                                 | Reservation and Transportation Ticket Agents and Travel Clerks                                            | 88                          | HS Diploma      | None                                                | ST OJT              | 300900            |       |                  |                  |                           |         |             |  | 72      |            |                     |
| 419021                                                                 | Real Estate Brokers                                                                                       | 87                          | HS Diploma      | <5 years                                            | None                | <b>051100</b>     | 11    | 9                | 2                | 12.5                      | 6.8     |             |  | 73      | Y          | Y                   |
| 419021                                                                 | Real Estate Brokers                                                                                       |                             |                 |                                                     |                     | 051110            | 5     | 3                | 2                |                           | 4.0     |             |  |         | Y          | Y                   |
| 211094                                                                 | Community Health Workers                                                                                  | 84                          | HS Diploma      | None                                                | ST OJT              | 130900            | 2     | 1                | 1                |                           |         |             |  | 74      |            |                     |
| 211094                                                                 | Community Health Workers                                                                                  |                             |                 |                                                     |                     | 210440            | 6     | 3                | 3                | 42.3                      | 13.0    |             |  |         |            |                     |
| 392011                                                                 | Animal Trainers                                                                                           | 80                          | HS Diploma      | None                                                | MT OJT              | 010240            |       |                  |                  |                           |         |             |  | 75      |            |                     |
| 514033                                                                 | Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 80                          | HS Diploma      | None                                                | MT OJT              | 095600            | 5     | 2                | 3                | 10.5                      | 5.5     |             |  | 76      |            |                     |
| 514033                                                                 | Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic |                             |                 |                                                     |                     | 095630            | 1     | 1                |                  | 22.6                      |         | 54.3        |  |         |            |                     |
| MT OJT- mor than 1 month and up to 12 months OJT and informal training |                                                                                                           | ST OJT- 1 month or less OJT |                 | LT OJT- >12 months and formal classroom instruction |                     |                   |       |                  |                  |                           |         |             |  |         |            |                     |

Sources: California Employment Department, Labor Market Information; California Community College Chancellor's Office, Curriculum Inventory and Data Mart; analysis by Cambridge West Partnership, LLC

|                                                                        | EDD Average Annual Projected Occupational Openings 2012-2022       |                                 |                    |                             |                            | Programs of Study |       |                     |                     | Awards 2010-11 to 2014-15 |         |                |            |                  |                             |
|------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------|--------------------|-----------------------------|----------------------------|-------------------|-------|---------------------|---------------------|---------------------------|---------|----------------|------------|------------------|-----------------------------|
| SOC                                                                    | Occupational Title                                                 | Average<br>Annual Total<br>Jobs | Entry Ed.<br>Level | Work<br>Exper               | On-the-<br>Job<br>Training | TOP               | Total | Cert. of<br>Achieve | Associate<br>Degree | Cert. of<br>Achieve       | Degrees | Other<br>Cert. | Occ<br>Cnt | AVC<br>AA/<br>AS | Cert of<br>Achieve-<br>ment |
| 512022                                                                 | Electrical and Electronic Equipment Assemblers                     | 78                              | HS Diploma         | None                        | ST OJT                     | 092400            | 7     | 3                   | 4                   | 2.0                       | 4.8     |                | 77         | Y                |                             |
| 512022                                                                 | Electrical and Electronic Equipment Assemblers                     |                                 |                    |                             |                            | 093400            | 10    | 6                   | 4                   | 71.2                      | 17.8    |                |            | Y                | Y                           |
| 271026                                                                 | Merchandise Displayers and Window Trimmers                         | 77                              | HS Diploma         | None                        | MT OJT                     | 050960            |       |                     |                     |                           |         |                | 78         |                  |                             |
| 451011                                                                 | First-Line Supervisors of Farming, Fishing, and Forestry Workers   | 77                              | HS Diploma         | <5 years                    | None                       | 010200            | 5     | 2                   | 3                   | 133.0                     | 61.9    |                | 79         |                  |                             |
| 451011                                                                 | First-Line Supervisors of Farming, Fishing, and Forestry Workers   |                                 |                    |                             |                            | 010300            | 4     | 1                   | 3                   | 3.0                       | 6.5     |                |            |                  |                             |
| 451011                                                                 | First-Line Supervisors of Farming, Fishing, and Forestry Workers   |                                 |                    |                             |                            | 011400            | 3     | 1                   | 2                   | 4.8                       | 7.1     |                |            |                  |                             |
| 474011                                                                 | Construction and Building Inspectors                               | 77                              | HS Diploma         | ≥5 years                    | MT OJT                     | 095720            | 4     | 3                   | 1                   | 8.1                       | 3.4     |                | 80         |                  |                             |
| 519122                                                                 | Painters, Transportation Equipment                                 | 76                              | HS Diploma         | None                        | MT OJT                     | 094900            | 8     | 4                   | 4                   | 30.6                      | 6.6     |                | 81         | Y                | Y                           |
| 232099                                                                 | Legal Support Workers, All Other                                   | 72                              | HS Diploma         | None                        | ST OJT                     | 140200            | 8     | 4                   | 4                   | 83.8                      | 39.7    |                | 82         |                  |                             |
| 272099                                                                 | Entertainers and Performers, Sports and Related Workers, All Other | 72                              | HS Diploma         | None                        | None                       | 100700            | 10    | 2                   | 8                   | 12.7                      | 26.1    |                | 83         | Y                |                             |
| 274021                                                                 | Photographers                                                      |                                 |                    |                             |                            | 100100            | 6     |                     | 6                   |                           | 56.3    |                | 84         | Y                |                             |
| 274021                                                                 | Photographers                                                      |                                 |                    |                             |                            | 100200            | 18    | 2                   | 16                  | 2.0                       | 85.8    |                |            | Y                |                             |
| 274021                                                                 | Photographers                                                      |                                 |                    |                             |                            | 101100            | 5     | 3                   | 2                   | 9.1                       | 15.2    |                |            |                  |                             |
| 274021                                                                 | Photographers                                                      |                                 |                    |                             |                            | 101200            | 7     | 4                   | 3                   | 13.0                      | 7.6     |                |            | Y                | Y                           |
| 516093                                                                 | Upholsterers                                                       | 70                              | HS Diploma         | None                        | MT OJT                     | 094910            |       |                     |                     |                           |         |                | 85         |                  |                             |
| 232093                                                                 | Title Examiners, Abstractors, and Searchers                        | 69                              | HS Diploma         | None                        | ST OJT                     | 140200            | 8     | 4                   | 4                   | 83.8                      | 39.7    |                | 86         |                  |                             |
| 413041                                                                 | Travel Agents                                                      | 60                              | HS Diploma         | None                        | MT OJT                     | 050940            |       |                     |                     |                           |         |                | 87         |                  |                             |
| 472021                                                                 | Brickmasons and Blockmasons                                        | 60                              | HS Diploma         | None                        | APP                        | 095260            |       |                     |                     |                           |         |                | 88         |                  |                             |
| 339021                                                                 | Private Detectives and Investigators                               | 55                              | HS Diploma         | <5 years                    | MT OJT                     | 210500            | 21    | 4                   | 17                  | 57.9                      | 429.8   |                | 89         | Y                |                             |
| 319093                                                                 | Medical Equipment Preparers                                        | 52                              | HS Diploma         | None                        | MT OJT                     | 120900            |       |                     |                     |                           |         |                | 90         |                  |                             |
| 472121                                                                 | Glaziers                                                           | 52                              | HS Diploma         | None                        | APP                        | 095240            |       |                     |                     |                           |         |                | 91         |                  |                             |
| 532012                                                                 | Commercial Pilots                                                  | 50                              | HS Diploma         | None                        | MT OJT                     | 302020            |       |                     |                     |                           |         |                | 92         |                  |                             |
| MT OJT- mor than 1 month and up to 12 months OJT and informal training |                                                                    | APP- Apprenticeship             |                    | ST OJT- 1 month or less OJT |                            |                   |       |                     |                     |                           |         |                |            |                  |                             |
|                                                                        |                                                                    |                                 |                    |                             |                            |                   |       |                     |                     |                           |         | Totals         | 92         | 55               | 34                          |

Sources: California Employment Department, Labor Market Information; California Community College Chancellor's Office, Curriculum Inventory and Data Mart; analysis by Cambridge West Partnership, LLC