

Environmental Scan

Prepared for Foothill-De Anza
Community College District

December 2013



In the following report, Hanover Research provides a detailed analysis of economic, educational, and demographic trends to inform future decision making at Foothill-De Anza Community College District. This data-centered report incorporates government statistics at the national, state, and local level to provide a broad overview of forces influencing community college education.

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EXECUTIVE SUMMARY AND KEY FINDINGS

INTRODUCTION

The public relies on community colleges, especially in challenging economic times, to provide affordable, relevant, and valuable higher education. However, the pressures on community colleges (particularly in California) have increased in recent years. Economic recession, state funding cuts, and political initiatives all push community colleges to improve student outcomes despite declining resources. In this report, Hanover provides an overview of various trends in Silicon Valley and elsewhere regarding high school graduation rates, college-going rates, college readiness, job projections, projected in-demand job skills, and salary projections (for in-demand jobs) for Foothill-De Anza Community College District (FHDA). The report is divided as follows:

- **Section I: Economics**—this section summarizes trends in the employment market from recent community college graduates, highlighting high-growth occupations and industries.
- **Section II: Education**—this section provides an overview of trends in high school enrollment/graduation rates, the transition from grade 12 to college, community college enrollment, and emerging academic disciplines.
- **Section III: Demographics**—this section provides a detailed profile of the population at the national, state, and local level.
- **Section IV: Politics**—this section briefly examines governmental policies toward community colleges, concentrating on recent changes in state funding.

KEY FINDINGS

ECONOMICS

- **After steep increases during the recent economic recession, the national, state, and local unemployment rates have begun to decline.** The unemployment rate in the San Jose-Sunnyvale-Santa Clara MSA was 6.4 percent in October 2013, unchanged from a revised 6.4 percent in September 2013, and below the year-ago estimate of 8.0 percent. This compares with an unadjusted unemployment rate of 8.3 percent for California and 7.0 percent for the nation during the same period.
- **Health care is the fastest-growing industry at the national level, and many of the most in-demand associate-degree level occupations are in the health care industry.** Such positions include physical therapist assistants, diagnostic medical sonographers, occupational therapy assistants, dental hygienists, radiation therapists, and respiratory therapists. **For occupations requiring AA and PSNDA degrees within Silicon Valley, EMTs, diagnostic medical sonographers, and**

veterinary technicians all project strong growth, while registered nursing is the most in-demand AA-related field in California at nearly 100,000 projected job openings over the course of the decade.

EDUCATION

- California K-12 enrollment is projected to decrease in the short term through 2014-15 followed by almost no change for two years, with moderate increases by 2021-22. **California high school enrollments and graduations are projected to hold steady** or slightly decline over the next decade, with particularly low graduation rates for Latino students. In addition, **Latino graduates are being underserved in their transition to community colleges**, both in Silicon Valley and across the state.
- **Community college enrollment in the United States is increasing, while enrollment in California and Silicon Valley is decreasing.** According to the National Center for Education Statistics, enrollment at Foothill College and De Anza College has dropped 3.23 percent, a steeper decrease than that found among other colleges in the area.
- **Our analysis suggests that the many of the increasingly popular associate degree programs are in healthcare fields such as nursing and related occupations.** However, institutional reporting inconsistencies complicate the process of determining student demand for new degree program. The **most commonly pursued associate's degrees are in liberal arts and related fields, followed by biological/physical sciences, social sciences, the humanities, and registered nursing.**

DEMOGRAPHICS

- **The population of California will increase by 10.6 million between 2010 and 2040, growing at an average rate of 0.65 percent per year. This projected annual growth rate correlates almost exactly with the national growth rate.** The slowly declining rate of population growth (in relation to past decades) is due in large part to plateauing immigration rates and a plummeting birth rate. **Silicon Valley's population will increase consistently over the next three decades, albeit at a somewhat slower pace (0.4 percent annually) than California and the U.S. as a whole.**
- **California's population has a similar male-to-female ratio in relation to the United States as a whole, with women slightly outnumbering men;** this ratio will hold steady through 2040. Within Silicon Valley, the male-to-female ratio

will increase slightly for San Mateo County and decrease slightly for Santa Clara County.

- **Silicon Valley is predominantly Latino by a small margin, with this margin projected to increase by 2060. This tracks closely with California as a whole,** which has a current slight White majority but will be heavily Latino by 2060. Latino population growth will make up roughly two-thirds of total population growth in both California and Silicon Valley in the next fifty years.
- **California's overall population is projected to age over the next three decades along roughly the same lines as the wider U.S. population.** Most notably, there will be a large increase in the 60+ population as the baby boom generation reaches retirement age.

POLITICS

- Government funding has decreased for community colleges across the country. **California's community colleges have dropped to a 20-year low in the wake of unprecedented cuts in state funding.** Colleges have reduced staff, cut courses, and increased class sizes—all of which have led to declines in student access. Funding for California community colleges has been cut by \$1.5 billion since 2007-08.
- In the past five years, course offerings have declined by up to 21 percent for spring/fall courses and 60 percent for summer courses. **California ranks last among states in funding per college student from state appropriations and tuition and fees.**

SECTION I: LABOR AND EMPLOYMENT

This section analyzes current economic trends at the national, state, and local level to evaluate the future employment prospects for recent FHDA graduates.

NATIONAL TRENDS

EMPLOYMENT CHANGE

National unemployment statistics and academic research suggest that employment opportunities throughout the economy will increase in the near future. The national unemployment rate has declined from its recent peak of 9.6 percent in 2010¹ to an average of 7.6 percent during 2013.² In addition, according to the Georgetown Center on Education and the Workforce (CEW), the number of jobs in the U.S. economy will increase from 140 million to 165 million by 2020.³

The CEW predicts that this growing job market will be increasingly dependent on workers with postsecondary education. As of 2010, 59 percent of jobs required some postsecondary education; by 2020, CEW estimates that the percentage will increase to 65 percent. The role of two-year higher education institutions is expected to grow over the next decade, as well. The CEW predicts that the percentage of jobs requiring associate’s degrees or some college without a degree will increase from 27 percent in 2010 to 30 percent in 2020.⁴

Figure 1.1: National Unemployment Rate, 2008-Present

2008	2009	2010	2011	2012	2013 (JAN-AUG)
5.8%	9.3%	9.6%	8.9%	8.1%	7.6%

Source: Bureau of Labor Statistics

The CEW also found that the skills acquired in college are becoming increasingly valuable in the modern economy. CEW identified communication, analysis, and leadership as the most important skills for workers to possess. Other abilities such as oral comprehension, oral expression, problem sensitivity, and deductive reasoning are also important in the growing economy.⁵

¹ “Labor Force Statistics from the Current Population Survey: Series ID LNU04000000.” U.S. Bureau of Labor Statistics, September 25, 2013.

http://data.bls.gov/timeseries/LNU04000000?years_option=all_years&periods_option=specific_periods&periods=Annual+Data

² “Labor Force Statistics from the Current Population Survey: Series ID LNS14000000.” U.S. Bureau of Labor Statistics, September 25, 2013. <http://data.bls.gov/timeseries/LNS14000000>

³ A. Carnevale, N. Smith, and J. Strohl. “Recovery: Job Growth and Education Requirements through 2020.”

Georgetown University Center on Education and the Workforce, June, 2013. pp.1-3.

<http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/Recovery2020.ES.Web.pdf>

⁴ Ibid., pp. 1-3.

⁵ Ibid., pp. 7-9.

Associate’s degrees will be particularly important in healthcare professional and technical occupations, where 29 percent of all jobs in 2020 will require an associate’s degree (compared to 12 percent of all jobs throughout the economy requiring associate’s degrees), according to CEW.⁶ As we will see below, healthcare occupations will also be in high demand in Silicon Valley and in California as a whole.

GROWING INDUSTRIES

Throughout this report, we analyze statistics using the compound annual growth rate (CAGR), which provides a smoothed measurement of annual growth; in other words, CAGR disregards year-to-year fluctuations in the data and instead provides an indication of overall growth over a given period.

When applied to recent national employment projections from the U.S. Bureau of Labor Statistics (BLS), CAGR reveals that employment opportunities in health care services field are projected to increase more quickly than in any other industry between 2010 and 2020 (see Figure 1.2). The BLS also expects individual and family services opportunities to increase rapidly through the end of the decade.⁷

Figure 1.2: Fastest-Growing U.S. Industries, 2010-2020 Projections

INDUSTRY	EMPLOYMENT		TOTAL CHANGE, 2010-2020	CAGR
	2010	2020		
Home health care services	1,080,600	1,952,400	871,800	6.8%
Individual and family services	1,215,000	2,066,400	851,400	6.1%
Management, scientific, and technical consulting services	991,400	1,567,000	575,600	5.2%
Veneer, plywood, and engineered wood product manufacturing	64,700	94,900	30,200	4.3%
Computer systems design and related services	1,441,500	2,112,800	671,300	4.3%

Source: Bureau of Labor Statistics

HIGH-GROWTH OCCUPATIONS

The BLS provides employment projections for individual occupations in addition to its overall industry projections. The BLS also publishes the typical education required for each occupation that it evaluates, and for this section we focus primarily on occupations that require only an associate’s degree.

The BLS estimates that opportunities for veterinary technicians and technologists will increase more than opportunities for any other associate’s-degree level occupations between 2010 and 2020. Other high-growth occupations identified by the BLS include

⁶ Ibid., p. 11.

⁷ “Employment and output by industry.” U.S. Bureau of Labor Statistics, February 1, 2012. http://www.bls.gov/emp/ep_table_207.htm

physical therapist assistant, diagnostic medical sonographer, occupational therapy assistant, and dental hygienist (see Figure 1.3). All of these occupations are also strong candidates for growth in Silicon Valley. The health care industry also accounts for many of the most lucrative associate's-degree level employment opportunities. Except for air traffic controllers, radiation therapists, nuclear medicine technologists, and dental hygienists earn more than any other occupation (see Figure 1.4).⁸

Figure 1.3: Fastest-Growing Non-Managerial Occupations Requiring Only an Associate's Degree, 2010-2020 U.S. Projections

OCCUPATION	EMPLOYMENT		CHANGE		AVERAGE ANNUAL OPENINGS*
	2010	2020	#	CAGR	
Veterinary Technologists and Technicians	80,200	121,900	41,700	4.28%	5,570
Physical Therapist Assistants	67,400	98,200	30,800	3.84%	4,120
Diagnostic Medical Sonographers	53,700	77,100	23,400	3.68%	3,170
Occupational Therapy Assistants	28,500	40,800	12,300	3.65%	1,680
Dental Hygienists	181,800	250,300	68,500	3.25%	10,490

* Due to growth and replacement
Source: Bureau of Labor Statistics

Figure 1.4: Highest-Paying U.S. Non-Managerial Occupations Requiring Only an Associate's Degree, 2010

OCCUPATION	MEDIAN ANNUAL SALARY	2010 EMPLOYMENT
Air Traffic Controllers	\$108,040	27,000
Radiation Therapists	\$74,980	16,900
Nuclear Medicine Technologists	\$68,560	21,900
Dental Hygienists	\$68,250	181,800
Nuclear Technicians	\$68,090	7,100
Registered Nurses	\$64,690	2,737,400
Diagnostic Medical Sonographers	\$64,380	53,700
Aerospace Engineering and Operations Technicians	\$58,080	8,700
Engineering Technicians, Except Drafters, All Other	\$58,020	70,600
Electrical and Electronics Engineering Technicians	\$56,040	151,100

Source: Bureau of Labor Statistics

Healthcare occupations figure less prominently among the fastest-growing and most lucrative bachelor's degree occupations. The BLS predicts that the number of opportunities for biomedical engineers will increase more rapidly than for any other bachelor's-degree level occupation between 2010 and 2020. Other in-demand occupations include meeting, convention, and event planners, interpreters and translators, and market research analysts

⁸ "Long Term Occupational Projection Data." U.S. Bureau of Labor Statistics, February 1, 2012.
http://www.bls.gov/emp/ep_table_102.htm

and marketing specialists (see Figure 1.5). In addition, the engineering field dominates the list of the most lucrative bachelor's-level occupations, accounting for eight of the ten highest-paying occupations (see Figure 1.6).⁹ Because community colleges often serve as the first step toward a student's eventual completion of a bachelor's degree, associate's degree programs that easily transfer to high-demand four-year programs may attract promising students.

Figure 1.5: Fastest-Growing Non-Managerial Occupations Requiring Only a Bachelor's Degree, National Level, 2010-2020

OCCUPATION	EMPLOYMENT		CHANGE		AVERAGE ANNUAL OPENINGS*
	2010	2020	#	CAGR	
Biomedical Engineers	15,700	25,400	9,700	4.93%	1,310
Meeting, Convention, and Event Planners	71,600	102,900	31,300	3.69%	4,500
Interpreters and Translators	58,400	83,100	24,600	3.59%	4,030
Market Research Analysts and Marketing Specialists	282,700	399,300	116,600	3.51%	19,180
Geographers	1,600	2,200	600	3.24%	130

Source: Bureau of Labor Statistics

Figure 1.6: Highest-Paying Non-Managerial Occupations Requiring Only a Bachelor's Degree, National Level, 2010

OCCUPATION	MEDIAN ANNUAL SALARY	2010 EMPLOYMENT
Petroleum Engineers	\$114,080	30,200
Airline Pilots, Copilots, and Flight Engineers	\$103,210	70,800
Nuclear Engineers	\$99,920	19,100
Computer Hardware Engineers	\$98,810	70,000
Aerospace Engineers	\$97,480	81,000
Physical Scientists, All Other	\$94,780	30,300
Software Developers, Systems Software	\$94,180	392,300
Chemical Engineers	\$90,300	30,200
Engineers, All Other	\$90,270	156,500
Electronics Engineers, Except Computer	\$90,170	140,000

Source: Bureau of Labor Statistics

⁹ Ibid.

CALIFORNIA TRENDS

The California Employment Development Department (EDD) provides statistics that give an overall perspective on occupational outlooks within the state. Many of the most in-demand occupations are identical across the U.S. and California, as we will see below. We begin with projections data for **all occupations** (see Figure 1.7).

Figure 1.7: California's Fastest Growing Occupations (All Degree Levels), 2010-2020

SOC	TITLE	ANNUAL AVERAGE EMPLOYMENT		EMPLOYMENT CHANGE	2012 Q1 WAGES		ENTRY-LEVEL EDUCATION
		2010 (EST.)	2020 (EST.)		MEDIAN HOURLY	MEDIAN ANNUAL	
31-1011	Home Health Aides	61,100	93,100	52.4%	\$10.44	\$21,712	None
13-1161	Market Research Analysts and Marketing Specialists	53,700	78,300	45.8%	\$32.74	\$68,104	BA
39-9021	Personal Care Aides	324,700	462,900	42.6%	\$10.34	\$21,510	None
29-2041	Emergency Medical Technicians and Paramedics	15,900	22,600	42.1%	\$15.19	\$31,578	PSNDA*
19-1042	Medical Scientists, Except Epidemiologists	27,800	39,300	41.4%	\$40.12	\$83,430	PhD
21-1013	Marriage and Family Therapists	10,700	14,900	39.3%	\$22.27	\$46,311	MA
29-2032	Diagnostic Medical Sonographers	5,300	7,300	37.7%	\$40.17	\$83,540	AA
19-1021	Biochemists and Biophysicists	6,400	8,800	37.5%	\$39.19	\$81,515	PhD
13-1081	Logisticians	13,600	18,200	33.8%	\$37.92	\$78,861	BA
47-2082	Tapers	6,000	8,000	33.3%	\$23.75	\$49,410	None
29-2052	Pharmacy Technicians	29,000	38,600	33.1%	\$18.41	\$38,285	High School
13-1051	Cost Estimators	22,400	29,600	32.1%	\$32.25	\$67,087	BA
15-1141	Database Administrators	11,200	14,800	32.1%	\$38.72	\$80,523	BA
31-9095	Pharmacy Aides	8,100	10,700	32.1%	\$11.61	\$24,158	High School
15-1133	Software Developers, Systems Software	75,500	99,600	31.9%	\$55.19	\$114,795	BA
13-1151	Training and Development Specialists	18,800	24,800	31.9%	\$31.00	\$64,471	BA
13-2041	Credit Analysts	6,000	7,900	31.7%	\$34.27	\$71,275	BA
39-2021	Nonfarm Animal Caretakers	19,600	25,700	31.1%	\$10.13	\$21,070	None
21-1022	Healthcare Social Workers	12,600	16,500	31.0%	\$29.22	\$60,777	MA
29-2056	Veterinary Technologists and Technicians	8,400	11,000	31.0%	\$16.77	\$34,876	AA

* PSNDA = "Postsecondary non-degree award," typically offered by community colleges.

Source: EDD

When we filter out all degrees except for those relevant to FHDA—AA, PSNDA, and BA—we arrive at the following data:

Figure 1.8: California’s Fastest Growing Occupations Requiring AA, PSNDA, or BA Degrees (2010-2020)

SOC	TITLE	ANNUAL AVERAGE EMPLOYMENT		EMPLOYMENT CHANGE	2012 Q1 WAGES		AA/PSNDA/BA
		2010 (EST.)	2020 (EST.)		MEDIAN HOURLY	MEDIAN ANNUAL	
13-1161	Market Research Analysts and Marketing Specialists	53,700	78,300	45.8%	\$32.74	\$68,104	BA
29-2041	Emergency Medical Technicians and Paramedics	15,900	22,600	42.1%	\$15.19	\$31,578	PSNDA
29-2032	Diagnostic Medical Sonographers	5,300	7,300	37.7%	\$40.17	\$83,540	AA
13-1081	Logisticians	13,600	18,200	33.8%	\$37.92	\$78,861	BA
13-1051	Cost Estimators	22,400	29,600	32.1%	\$32.25	\$67,087	BA
15-1141	Database Administrators	11,200	14,800	32.1%	\$38.72	\$80,523	BA
15-1133	Software Developers, Systems Software	75,500	99,600	31.9%	\$55.19	\$114,795	BA
13-1151	Training and Development Specialists	18,800	24,800	31.9%	\$31.00	\$64,471	BA
13-2041	Credit Analysts	6,000	7,900	31.7%	\$34.27	\$71,275	BA
29-2056	Veterinary Technologists and Technicians	8,400	11,000	31.0%	\$16.77	\$34,876	AA
13-2052	Personal Financial Advisors	30,100	39,100	29.9%	\$29.62	\$61,610	BA
21-1091	Health Educators	7,700	10,000	29.9%	\$23.99	\$49,891	BA

Source: EDD

As shown by these figures, there are not many high-growth fields for which a community college degree serves as typical entry-level education in California. For AA and PSNDA degrees, **EMTs, diagnostic medical sonographers, and veterinary technicians all project strong growth**, while most relevant BA fields are related to software, marketing, and training.

While these figures provide helpful information regarding high-growth fields, it is also important to examine which fields have the **largest growth** in terms of sheer numbers (see Figure 1.9).

Figure 1.9: California Occupations with the Most Job Openings (2010-2020)

SOC	TITLE	TOTAL JOB OPENINGS	2012 Q1 WAGES		ENTRY-LEVEL EDUCATION
			MEDIAN HOURLY	MEDIAN ANNUAL	
41-2031	Retail Salespersons	232,000	\$10.71	\$22,278	None
41-2011	Cashiers	220,000	\$9.96	\$20,725	None
35-3031	Waiters and Waitresses	175,100	\$9.09	\$18,910	None
39-9021	Personal Care Aides	163,900	\$10.34	\$21,510	None
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	148,100	\$9.18	\$19,086	None
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	120,300	\$11.99	\$24,943	None
43-9061	Office Clerks, General	109,400	\$15.10	\$31,413	High School
29-1111	Registered Nurses	99,800	\$43.06	\$89,577	AA
43-4051	Customer Service Representatives	92,600	\$17.47	\$36,347	High School
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	78,800	\$8.98	\$18,672	None
43-5081	Stock Clerks and Order Fillers	74,900	\$11.13	\$23,152	None
43-1011	First-Line Supervisors of Office and Administrative Support Workers	74,300	\$26.75	\$55,641	High School
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	68,600	\$11.53	\$23,976	None
41-1011	First-Line Supervisors of Retail Sales Workers	62,200	\$19.16	\$39,860	High School
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	60,100	\$9.34	\$19,411	None
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	59,200	\$27.53	\$57,267	High School
11-1021	General and Operations Managers	59,100	\$53.48	\$111,247	AA
35-2021	Food Preparation Workers	58,800	\$9.44	\$19,622	None
37-3011	Landscaping and Groundskeeping Workers	54,400	\$12.04	\$25,024	None
35-2011	Cooks, Fast Food	52,900	\$9.00	\$18,738	None

When we filter out all degrees except for those relevant to FHDA—AA, PSNDA, and BA—we arrive at the following data:

Figure 1.10: California Occupations with the Most Job Openings for Entry-Level Positions Requiring AA, PSNDA, and BA Degrees (2010-2020)

SOC	TITLE	TOTAL JOB OPENINGS	2012 Q1 WAGES		AA/ PSNDA/ BA
			MEDIAN HOURLY	MEDIAN ANNUAL	
29-1111	Registered Nurses	99,800	\$43.06	\$89,577	AA
11-1021	General and Operations Managers	59,100	\$53.48	\$111,247	AA
25-2021	Elementary School Teachers, Except Special Education	51,500	n/a	\$67,496	BA
13-2011	Accountants and Auditors	50,000	\$33.29	\$69,244	BA
13-1161	Market Research Analysts and Marketing Specialists	38,800	\$32.74	\$68,104	BA
31-1012	Nursing Aides, Orderlies, and Attendants	38,800	\$13.41	\$27,898	PSNDA
15-1132	Software Developers, Applications	33,800	\$50.34	\$104,691	BA
13-1111	Management Analysts	32,200	\$40.60	\$84,448	BA
15-1133	Software Developers, Systems Software	32,000	\$55.19	\$114,795	BA
29-2061	Licensed Practical and Licensed Vocational Nurses	31,700	\$24.88	\$51,760	PSNDA
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	31,100	n/a	\$65,388	BA

Interestingly, there is some overlap among high-growth and high-demand fields—market research analysts and nursing professions are promising according to both metrics. **Registered nursing is clearly the most relevant AA-related field in California, at nearly 100,000 projected job openings over the course of the decade.**

SAN JOSE-SANTA CLARA-SUNNYVALE MSA (SAN BENITO AND SANTA CLARA COUNTIES)

California’s EDD divides the state into various metropolitan statistical areas (MSAs); the MSA closest to Silicon Valley is “San Jose-Santa Clara-Sunnyvale MSA,” which covers all of San Benito and Santa Clara Counties.

EMPLOYMENT RATES AND JOB GROWTH

The unemployment rate in the San Jose-Sunnyvale-Santa Clara MSA was 6.4 percent in October 2013, unchanged from a revised 6.4 percent in September 2013, and below the year-ago estimate of 8.0 percent. This compares with an unadjusted unemployment rate of 8.3 percent for California and 7.0 percent for the nation during the same period. The unemployment rate was 8.1 percent in San Benito County, and 6.4 percent in Santa Clara County.¹⁰

Industry employment in the MSA—which includes self-employment, unpaid family workers, private household workers, farm, and nonfarm employment—is expected to reach more than 1.1 million by 2020. This increase represents a gain of 202,800 jobs. The MSA’s total

¹⁰ EDD, “San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area: Seasonal Education Gains Prevailed in Month-Over Job Scene,” November 22, 2013. [http://www.calmis.ca.gov/file/lfmonth/sjos\\$pdps.pdf](http://www.calmis.ca.gov/file/lfmonth/sjos$pdps.pdf)

nonfarm employment is projected to gain approximately 192,500 jobs by 2020. The professional and business services; educational services, health care, and social assistance; and manufacturing industry sectors account for more than 50 percent of all nonfarm job growth.¹¹

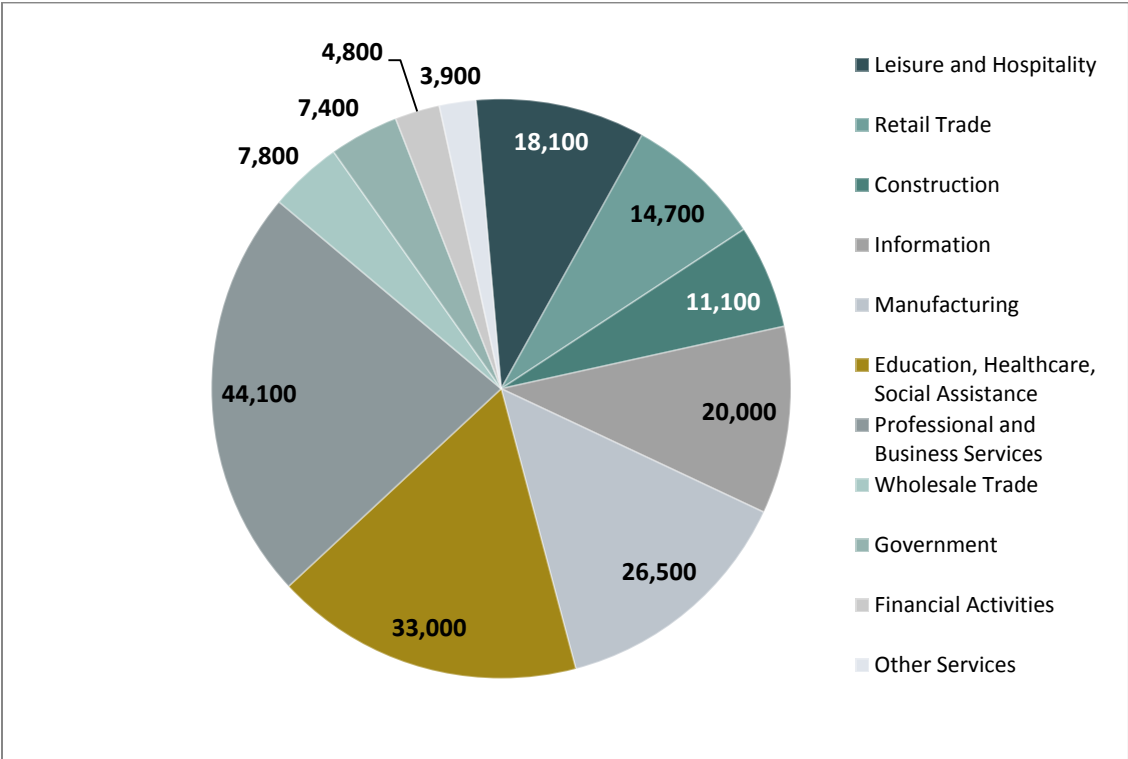
- Professional and business services employment is projected to grow by 27.2 percent through the projections period and will have more than a third of its growth in computer system design and related services (15,800 jobs);
- Educational services, health care, and the social assistance industry are expected to increase by 29.3 percent, with the ambulatory health care services contributing 9,800 jobs;
- Manufacturing is projected to grow by 17.3 percent with a large concentration of growth in the computer and electronic product manufacturing industry (22,500 jobs).

For occupational employment, the MSA projects 205,500 new jobs from industry growth and nearly 213,400 job openings from replacement needs, for a combined total of approximately 418,900 job openings. The top two overall occupations with the most job openings are software developers for applications and systems software, as might be expected from the presence of large software companies in Silicon Valley. Both occupations have nearly 80 percent of the total job openings due to new job growth. Other occupations that have over 70 percent of total job openings due to new job growth include home health aides; personal care aides; and information security analysts, web developers, and computer network architects. **The fastest growing occupation with an entry-level education of an associate's degree is paralegal/legal assistants.**¹² See Figure 1.11 for a detailed breakdown of job growth.

¹¹ Paragraph adapted from State of California Employment Development Department, "2010-2020 San Benito and Santa Clara Counties Projection Highlights." [http://www.calmis.ca.gov/file/indproj/sjos\\$_highlights.pdf](http://www.calmis.ca.gov/file/indproj/sjos$_highlights.pdf)

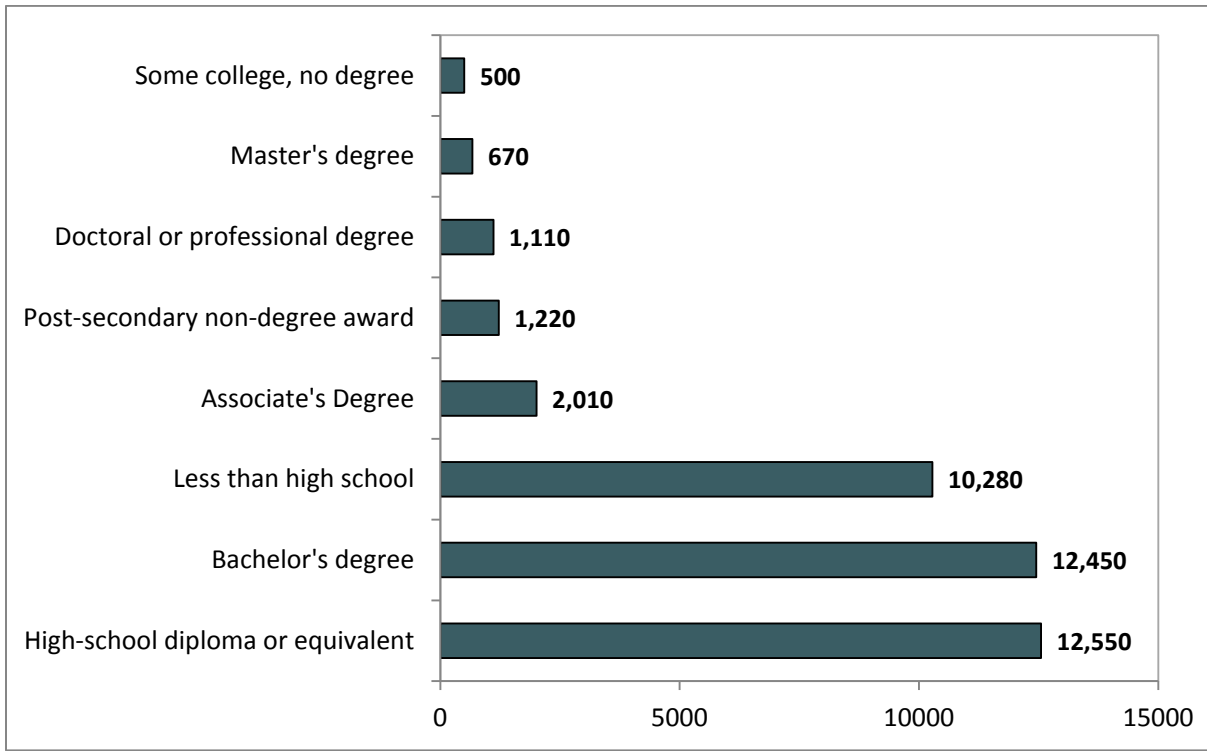
¹² Paragraph adapted from *ibid.*

Figure 1.11: Projected Total Job Growth by Industry Sector in the MSA, 2010-2020



Source: www.calmis.ca.gov

Figure 1.12: Projected Average Annual Job Openings By Entry-Level Education in the MSA (2010-2020)



Source: www.calmis.ca.gov

As evidenced by these figures, job openings for positions that require a community college degree (AA or PSNDA) are not particularly strong in Silicon Valley—a BA or high school diploma are more likely to lead to full-time work.

GROWING INDUSTRIES AND HIGH-EARNING OCCUPATIONS

Turning to AA/PSNDA/BA-related fields, we present below a summary of the strongest professions projected for 2010-2020 in the MSA:¹³

PSNDA, Highest Growth:

- Heating, Air Conditioning, and Refrigeration Mechanics and Installers (41.5% or 630 jobs)
- Telecommunications Equipment Installers and Repairers, Except Line Installers (23.3% or 450 jobs)
- Dental Assistants (22.7% or 710 jobs)
- Manicurists and Pedicurists (21.0% or 330 jobs)
- Hairdressers, Hairstylists, and Cosmetologists (19.8% or 540 jobs)

¹³ EDD, "Projection Highlights," op. cit.

PSNDA, Highest Demand:

- Dental Assistants (1,360 jobs)
- Nursing Aides, Orderlies, and Attendants (1,280 jobs)
- Hairdressers, Hairstylists, and Cosmetologists (1,060 jobs)
- Heating, Air Conditioning, and Refrigeration Mechanics and Installers (900 jobs)
- Telecommunications Equipment Installers and Repairers, Except Line Installers (760 jobs)

AA, Highest Growth:

- Paralegals and Legal Assistants (55.1% or 980 jobs)
- Respiratory Therapists (31.2% or 190 jobs)
- Radiologic Technologists and Technicians (30.3% or 220 jobs)
- Dental Hygienists (29.0% or 310 jobs)
- Registered Nurses (24.6% or 3,030 jobs)

AA, Highest Demand:

- Registered Nurses (5,260 jobs)
- General and Operations Managers (4,700 jobs)
- Electrical and Electronics Engineering Technicians (1,240 jobs)
- Paralegals and Legal Assistants (1,230 jobs)
- Preschool Teachers, Except Special Education (1,100 jobs)

BA, Highest Growth:

- Meeting, Convention, and Event Planners (52.5% or 310 jobs)
- Market Research Analysts and Marketing Specialists (52.1% or 3,050 jobs)
- Biomedical Engineers (46.8% or 280 jobs)
- Database Administrators (46.6% or 750 jobs)
- Information Security Analysts, Web Developers, and Computer Network Architects (40.7% or 2,640 jobs)

BA, Highest Demand:

- Software Developers, Applications (11,910 jobs)
- Software Developers, Systems Software (11,590 jobs)
- Market Research Analysts and Marketing Specialists (4,610 jobs)
- Elementary School Teachers, Except Special Education (4,280 jobs)
- Accountants and Auditors (4,230 jobs)

Detailed breakdowns are provided below (see Figures 1.13 through 1.16).

Figure 1.13: High-Growth Occupations Requiring an AA/PSNDA in the MSA (2010-2020)

OCCUPATION	ANNUAL AVERAGE EMPLOYMENT		EMPLOYMENT CHANGE PERCENT	2012 Q1 WAGES		AA/PSNDA
	2010	2020		MEDIAN HOURLY	MEDIAN ANNUAL	
Paralegals and Legal Assistants	1,780	2,760	55.1%	\$32.79	\$68,215	AA
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	1,520	2,150	41.4%	\$26.96	\$56,093	PSNDA
Respiratory Therapists	610	800	31.1%	\$41.38	\$86,070	AA
Radiologic Technologists and Technicians	760	990	30.3%	\$39.78	\$82,747	AA
Dental Hygienists	1,070	1,380	29.0%	\$48.96	\$101,831	AA

Source: EDD

Figure 1.14: High-Growth Occupations Requiring a BA in the MSA (2010-2020)

OCCUPATION	ANNUAL AVERAGE EMPLOYMENT		EMPLOYMENT CHANGE PERCENT	2012 Q1 WAGES	
	2010	2020		MEDIAN HOURLY	MEDIAN ANNUAL
Meeting, Convention, and Event Planners	590	900	52.5	\$26.18	\$54,463
Market Research Analysts and Marketing Specialists	5,850	8,900	52.1	\$51.22	\$106,527
Biomedical Engineers	620	910	46.8	\$52.60	\$109,405
Database Administrators	1,610	2,360	46.6	\$49.24	\$102,433
Information Security Analysts, Web Developers, and Computer Network Architects	6,480	9,120	40.7	\$54.35	\$113,052
Cost Estimators	1,560	2,190	40.4	\$36.18	\$75,254
Personal Financial Advisors	1,810	2,530	39.8	\$35.55	\$73,939
Logisticians	1,360	1,890	39.0	\$45.29	\$94,207
Network and Computer Systems Administrators	4,950	6,860	38.6	\$46.36	\$96,413
Software Developers, Systems Software	23,640	32,770	38.6	\$63.58	\$132,241

Source: EDD

Figure 1.15: High-Demand Occupations Requiring an AA/PSNDA in the MSA (2010-2020)

OCCUPATION	TOTAL JOB OPENINGS	2012 Q1 WAGES		AA/PSNDA
		MEDIAN HOURLY	MEDIAN ANNUAL	
Registered Nurses	5,260	\$60.40	\$125,631	AA
General and Operations Managers	4,700	\$66.97	\$139,294	PSNDA

Source: EDD

Interestingly, EDD only provides full data for two AA/PSNDA-related occupations in its “high-demand occupations” list, due to the fact that these were the only AA/PSNDA-related fields in the top 50.

Figure 1.16: High-Demand Occupations Requiring a BA in the MSA (2010-2020)

OCCUPATION	TOTAL JOB OPENINGS	2012 Q1 WAGES	
		MEDIAN HOURLY	MEDIAN ANNUAL
Software Developers, Applications	11,910	\$57.14	\$118,854
Software Developers, Systems Software	11,590	\$63.58	\$132,241
Market Research Analysts and Marketing Specialists	4,610	\$51.22	\$106,527
Elementary School Teachers, Except Special Education	4,280	n/a	\$61,193
Computer Systems Analysts	4,080	\$47.24	\$98,262
Computer Hardware Engineers	3,920	\$59.50	\$123,766
Electronics Engineers, Except Computer	3,730	\$59.02	\$122,756
Computer and Information Systems Managers	3,680	\$80.72	\$167,892
Information Security Analysts, Web Developers, and Computer Network Architects	3,600	\$54.35	\$113,052
Marketing Managers	3,410	\$76.13	\$158,338

Source: EDD

As one might expect for an SMA based in Silicon Valley, software developer jobs are in very high demand, though area employers have very selective hiring processes and hence this occupational track may not be directly applicable for FHDA, though it could certainly consider providing AA tracks to BA positions in the software development field.

As of 2010, the SMA employs 939,500 workers, with 1,142,300 projected by 2020. Average annual job openings are 41,887, with roughly half from new jobs and half from replacements. Median hourly wage for **all** professions in the SMA (as of 2012 Q1) is \$26.01 hourly and \$54,094 annual. In Figure 1.17 (below), we provide data regarding the highest-income professions requiring an AA/PSNDA in the SMA.

Figure 1.17: Highest-Income Professions Requiring an AA/PSNDA in the SMA

OCCUPATION	TOTAL EMPLOYEES IN SMA	2012 Q1 WAGES	
		MEDIAN HOURLY	MEAN ANNUAL
Registered Nurses	13,190	\$62.55	\$122,990
Nuclear Medicine Technologists	40	\$55.46	\$114,930
Radiation Therapists	100	\$54.37	\$112,460
Diagnostic Medical Sonographers	270	\$52.31	\$107,150
Dental Hygienists	1,390	\$50.15	\$97,450
Respiratory Therapists	580	\$42.86	\$88,520
Engineering Technicians	740	\$28.53	\$63,800
Electronics Installers and Repairers	790	\$26.71	\$56,800

Source: BLS

In comparison to the rest of the country, wages are relatively higher for each of these occupations, as one might expect due to the higher cost of living in the area. **Once again, registered nurses stand out as the most in-demand and high-paying occupation in the area.**

SECTION II: EDUCATION TRENDS

In this section, Hanover summarizes the current educational trends occurring at the national, state, and local levels, with a focus on the pipeline from high schools to community colleges. We describe high school graduation rates, community college enrollment trends, and analyze degree completions data. Many of the figures below are drawn from the California Department of Finance (CDOF) website, which provides fine-grained data for the counties of Santa Clara and San Mateo.

HIGH SCHOOL GRADUATION AND COLLEGE READINESS

CALIFORNIA K-12 ENROLLMENT AND GRADUATION

We begin with an overall look at K-12 enrollment in California and the counties of Santa Clara and San Mateo.

Figure 2.1: Projected Public K-12 Graded Enrollment by School Year (2013-14 to 2021-22)

LOCATION	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
California	6,234,415	6,228,343	6,221,940	6,225,098	6,234,607	6,252,065	6,277,337	6,294,131	6,207,064
Santa Clara	278,285	278,620	278,889	279,341	278,971	278,910	278,561	277,581	269,605
San Mateo	96,926	97,820	98,824	99,628	100,256	101,055	101,689	101,957	93,614

Source: CDOF

CDOF’s Demographic Research Unit notes that the birth projections series incorporates a perceived decline in births, contributing to lower elementary enrollment and reduced growth for future total enrollment. Recent changes to kindergarten age of admission impact elementary enrollment patterns making the 2012 projections inconsistent with projections series produced prior to the 2010 series. Kindergarten enrollment increases as some students qualify for a two-year kindergarten program. Secondary enrollment is projected to decrease in the short term through 2014-15 followed by almost no change for two years and then moderate increases in the outer years of the projections series resulting in an overall increase of 26,331 by 2021-22.¹⁴

High school enrollment projections are not provided by CDOF or other departments, though there are figures for overall enrollment in public schools over the past decade, which indicates relatively stable enrollment figures for grade 12 over the next few years (based on current enrollments for grades 7-11); see Figure 2.2.

¹⁴ Paragraph adapted from CDOF, “California Public K-12 Graded Enrollment and High School Graduate Projections by County, 2012 Series.” <http://www.dof.ca.gov/research/demographic/reports/projections/k-12/>

Figure 2.2: Enrollment in California Public High Schools (2001-02 to 2012-13)

GR	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
7	472,363	500,138	500,412	492,917	491,516	492,883	487,331	479,359	466,926	468,025	465,108	470,494
8	461,133	473,553	500,368	498,805	489,567	491,883	490,054	486,390	472,936	471,967	468,275	466,132
9	499,505	520,287	526,442	549,486	547,014	545,040	541,650	539,167	524,546	514,491	501,258	497,455
10	459,588	471,726	490,465	497,203	515,761	517,873	513,707	509,157	506,414	502,486	495,009	486,498
11	420,295	428,991	441,316	459,114	467,304	487,493	488,227	489,207	487,827	488,348	487,466	481,531
12	365,907	386,379	396,259	409,560	423,289	443,121	468,281	476,156	478,180	488,388	495,945	499,275

Source: California Dept. of Ed.¹⁵

While enrollment is projected to remain steady, high school graduation rates have dropped a few percentage points in the past decade (see Figure 2.3).

Figure 2.3: High School Graduates (Grade 12) in California Public Schools (2001-02 to 2011-12)

GRADE	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
<i>Number</i>	325,919	341,278	342,987	355,275	349,207	356,641	376,393	382,950	405,087	410,476	418,598
<i>Percent of Total</i>	89.1%	88.3%	86.6%	86.7%	82.5%	80.5%	80.4%	80.4%	84.7%	84%	84.4%

Source: California Dept. of Ed.

Figure 2.4 presents CDOF’s projections for high school graduates over the next decade, which indicates a slight drop from a peak in 2011-12 (as shown in Figure 2.3) and/or a different data-collecting methodology. In either case, both enrollments and graduations are projected to hold steady or slightly decline over the next decade.

Figure 2.4: Projected Public High School Graduates by School Year (2013-14 to 2021-22)

LOCATION	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
<i>California</i>	399,834	389,686	390,141	388,321	393,701	391,995	389,092	395,889	399,830
<i>Santa</i>	16,913	17,103	17,284	17,385	18,453	18,334	18,695	19,272	19,217
<i>San Mateo</i>	5,885	5,638	5,750	5,850	6,145	6,042	6,200	6,513	6,639

Source: CDOF

A third source gives slightly different figures for total California high school graduations (data are only provided up to 2008) and indicates an increase from 2004 to 2008 in the percentage of California high school graduates who go directly to college (see Figure 2.5).

¹⁵ CDE, “Enrollment, Graduates, and Dropouts in California Public Schools, 1974-75 through 2011-12.” <http://dq.cde.ca.gov/dataquest/EnrGradDrop.asp>

Figure 2.5: College Transition Rates

	LOCATION	PERCENT OF GRADUATES GOING DIRECTLY TO COLLEGE	HIGH SCHOOL GRADUATES	FIRST-TIME FRESHMEN DIRECTLY FROM HIGH SCHOOL ENROLLED IN U.S.
2008	California	65.4%	409,439	267,801
	U.S.	63.3%	3,299,613	2,088,797
2006	California	55.8%	377,056	210,481
	U.S.	61.6%	3,108,005	1,913,501
2004	California	43.7%	375,426	164,087
	U.S.	55.7%	3,053,563	1,699,635
2002	California	51.1%	356,425	182,266
	U.S.	56.6%	2,904,584	1,643,496

Source: Higher Ed Info¹⁶

HIGH SCHOOL GRADUATION IN SILICON VALLEY

The graduation rate at traditional high schools in the Silicon Valley far outpaces the state average, and dropout rates at most local schools are very low. At 98 percent, Los Altos High School boasted the best graduation rates in the region for 2011-12. It also had the lowest dropout rate, at 1.5 percent. Santa Clara County’s high school graduation rate was 81.1 percent in 2011-12, while the state’s rate was 78.5 percent—the dropout rate for the county and the state were 11 percent and 13.2 percent, respectively. However, the County falls short in graduating Hispanic students in particular. The County’s graduation rate last year for Hispanic students was only 66.1 percent, compared to 73.2 percent statewide. Similarly, the dropout rate for Hispanic students was 24 percent compared to 16.2 percent statewide.¹⁷

The Silicon Valley Index notes that within the Valley as a whole, during the 2010-11 school year, high school dropout rates increased three percent to 14 percent, while graduation rates fell a percentage point to 87 percent. However, youth in Silicon Valley were more likely to be working or in school than their peers statewide; the region’s proportion of disconnected youth was four percent lower than in California overall. There are some negative indicators, as well—within the Valley, juvenile felony drug offenses edged up to 152 offenses per 100,000 juveniles, and the number of substance abuse rehabilitation clients shot up 13 percent in 2010. Finally, for the first time in four years, the percentage of eighth graders scoring advanced on the Algebra I test fell. Proficiency levels also declined, falling three percent.¹⁸

¹⁶ NCHEMS Information Center, “College-Going Rates of High School Graduates, Directly from High School.” <http://www.higheredinfo.org/dbrowser/?year=2004&level=nation&mode=data&state=0&submeasure=63>

¹⁷ Paragraph adapted from Los Altos Patch, “High School Graduation Rates in Silicon Valley,” May 7, 2013. <http://losaltos.patch.com/groups/schools/p/los-altos-high-schools-graduation-rate-is-highest-in-765624b905>

¹⁸ Paragraph adapted from Silicon Valley Index, “2013 Index.” <http://www.siliconvalleyindex.org/index.php/home/2013-index-highlights>

The school year 2008-09 is the only time period for which detailed county-level data are available (see Figures 2.6 and 2.7).

Figure 2.6: High School Graduates' College Enrollment in the U.S. from San Mateo County, 2008-09 (Estimated)

RACE/ETHNICITY	TOTAL HIGH SCHOOL GRADUATES	NUMBER ENROLLED IN U.S. PUBLIC POSTSECONDARY INSTITUTIONS	PERCENT ENROLLED IN U.S. PUBLIC POSTSECONDARY INSTITUTIONS
Hispanic or Latino of Any Race	1,439	861	59.8%
American Indian or Alaska Native	17	12	70.6%
Asian, Not Hispanic	1,441	1,196	83.0%
Pacific Islander, Not Hispanic	150	89	59.3%
African American, Not Hispanic	181	119	65.8%
White, Not Hispanic	2,004	1,625	81.1%
Two or More Races, Not Hispanic	n/a	n/a	n/a
Not Reported	130	98	75.4%
Total	5,364	4,001	74.6%

Source: CDE¹⁹

Figure 2.7: High School Graduates' College Enrollment in the U.S. from Santa Clara County, 2008-09 (Estimated)

RACE/ETHNICITY	TOTAL HIGH SCHOOL GRADUATES	NUMBER ENROLLED IN U.S. PUBLIC POSTSECONDARY INSTITUTIONS	PERCENT ENROLLED IN U.S. PUBLIC POSTSECONDARY INSTITUTIONS
Hispanic or Latino of Any Race	4,567	2,664	58.3%
American Indian or Alaska Native	65	41	63.1%
Asian, Not Hispanic	5,570	4,759	85.4%
Pacific Islander, Not Hispanic	116	76	65.5%
African American, Not Hispanic	505	410	81.2%
White, Not Hispanic	5,058	3,929	77.7%
Two or More Races, Not Hispanic	236	180	76.3%
Not Reported	119	87	73.1%
Total	16,236	12,146	74.8%

Source: CDE

Total graduations by ethnicity (though not percentages) are provided by CDE for the 2009 to 2012 school years (see Figure 2.8):

¹⁹ CDE, "2008-09 High School Graduates' College Enrollment (Estimated)."
<http://dq.cde.ca.gov/dataquest/sfsf/PostsecondaryIndicatorC11.aspx?cChoice=C11Cnty&cYear=2008-09&TheCounty=41%2cSAN%5eMATEO&cLevel=County&cTopic=C11&myTimeFrame=S&submit1=Submit>

Figure 2.8: Grade 12 Graduates by Ethnicity/Location from 2008-09 to 2011-12

	HISPANIC /LATINO	AMERICAN INDIAN OR ALASKAN	ASIAN	PACIFIC ISLANDER	FILIPINO	AFRICAN AMERICAN	WHITE	2+ RACES	NOT REPORTED	TOTAL	YEAR
SAN MATEO COUNTY	1,439	17	828	150	613	182	2,004	2	131	5,366	2008-09
	1,691	18	846	146	563	224	1,886	173	33	5,580	2009-10
	1,803	9	850	175	567	179	1,907	322	27	5,839	2010-11
	1,893	24	810	155	582	214	1,813	335	31	5,857	2011-12
SANTA CLARA COUNTY	4,568	65	4,547	116	1,023	505	5,062	237	119	16,242	2008-09
	5,099	86	4,712	127	941	522	4,984	279	83	16,833	2009-10
	5,357	53	4,679	119	959	544	4,620	281	70	16,682	2010-11
	5,593	50	4,861	107	970	523	4,680	355	49	17,188	2011-12
CALIFORNIA	156,842	2,885	40,142	2,569	12,618	25,996	136,096	2,520	3,282	382,950	2008-09
	174,166	3,169	41,287	2,661	12,276	27,564	132,931	4,711	6,322	405,087	2009-10
	184,135	2,931	41,431	2,588	12,656	27,588	130,582	5,676	2,889	410,476	2010-11
	193,516	3,123	41,700	2,585	12,745	28,078	127,801	6,790	2,260	418,598	2011-12

Source: CDE²⁰

One general conclusion to be drawn from these data is that Latino/Hispanic high school graduates are being underserved in their transition to community colleges both in Silicon Valley and across the state.

COLLEGE READINESS AND TRANSITION

Comprehensive college readiness data have not been collected at the county level. The school year 2006-07 is the only time period for which detailed data are available (see Figures 2.9 and 2.10).

²⁰ CDE, "Graduates by Ethnicity."
<http://dq.cde.ca.gov/dataquest/GraduateReporting/GraduatesByEth.aspx?cTopic=Graduates&cChoice=StGrdbByEt2&cYear=2011-12&level=State&cType=All&cGender=B&cGroup=G12>

Figure 2.9: 2006-07 High School Graduates' College Enrollment in California from Santa Clara County (Estimated)

RACE/ETHNICITY	TOTAL HIGH SCHOOL GRADUATES	NUMBER ENROLLED IN CA PUBLIC POSTSECONDARY INSTITUTIONS	PERCENT ENROLLED IN CA PUBLIC POSTSECONDARY INSTITUTIONS	NUMBER THAT COMPLETED 1 CREDIT-YEAR WITHIN 2 YEARS	PERCENT THAT COMPLETED 1 CREDIT-YEAR WITHIN 2 YEARS
Hispanic	3,619	1,318	36.4%	485	13.4%
American Indian or Alaska Native Not Hispanic	71	31	43.7%	18	25.4%
Asian	4,266	2,822	66.2%	2,096	49.1%
Pacific Islander	83	31	37.4%	n/a	n/a
African American	468	193	41.2%	82	17.5%
White	5,127	2,672	52.1%	1,628	31.8%
Two or More Races	541	293	54.2%	163	30.1%
Filipino	917	492	53.7%	255	27.8%
Total	15,092	7,852	52.0%	4,737	31.4%

Source: CDE

Figure 2.10: 2006-07 High School Graduates' College Enrollment in California from San Mateo County (Estimated)

RACE/ETHNICITY	TOTAL HIGH SCHOOL GRADUATES	NUMBER ENROLLED IN CA PUBLIC POSTSECONDARY INSTITUTIONS	PERCENT ENROLLED IN CA PUBLIC POSTSECONDARY INSTITUTIONS	NUMBER THAT COMPLETED 1 CREDIT-YEAR WITHIN 2 YEARS	PERCENT THAT COMPLETED 1 CREDIT-YEAR WITHIN 2 YEARS
Hispanic	1,327	724	54.6%	286	21.6%
American Indian or Alaska Native Not Hispanic	17	n/a	n/a	n/a	n/a
Asian	895	656	73.3%	531	59.3%
Pacific Islander	163	83	50.9%	28	17.2%
African American	189	83	43.9%	36	19.1%
White	2,095	1,313	62.7%	872	41.6%
Two or More Races	59	35	59.3%	24	40.7%
Filipino	635	404	63.6%	208	32.8%
Total	5,380	3,307	61.5%	1,990	37.0%

Source: CDE

As one scholar notes, “solid numbers that cross the high-school-to-college transition are hard to come by, particularly from the sprawling California education systems.”²¹ While more comprehensive recent data would be helpful—the California Community Colleges’ office (CCC) emphasizes college readiness in its 2013 strategic plan, but does not provide any data on the subject²²—all sources indicate that the disappointing trend of a lack of college readiness among area high school graduates in 2006-07 has continued into 2013.

The CCC frequently uses assessments and other measures to advise students about their academic readiness in mathematics, reading, and writing, and to recommend course placements. The table below shows that by far most California students assessed are not deemed ready to begin taking transferable courses—those that would be accepted for credit by the University of California (UC) and/or California State University (CSU).²³

Figure 2.11: Recommended Placements of CCC Students Assessed for Fall 2007

DISCIPLINE	STUDENTS RECOMMENDED FOR 2+ LEVELS BELOW TRANSFERABLE LEVEL	STUDENTS RECOMMENDED FOR 1 LEVEL BELOW TRANSFERABLE LEVEL	PERCENT OF STUDENTS RECOMMENDED TO BEGIN TAKING TRANSFERABLE COURSES
Mathematics	61%	23%	16%
English	38%	34%	28%
Reading	32%	30%	38%
ESL Reading	82%	10%	8%
ESL Writing	84%	8%	8%

These disappointing figures are even worse for minority students. A separate research study refers to a “disturbing achievement gap,” with Latino and black students being less likely to take and pass transfer-level college courses; this gap occurs even among students that performed well in high school. The study was not able to determine what is causing these gaps, though probably involve Latino students’ lack of knowledge regarding what to expect in college, along with the bureaucracy of California’s two-year system, which has been hard hit by years of budget cuts and overbooked courses.²⁴

One interesting model that might work for FHDA is Long Beach City College’s close collaboration with its local unified school district in a program (“Promise Pathways”) to assist high school students in preparing for college. An initial group of 1,000 students from Long Beach high schools placed with this new method were far more likely to take transfer-

²¹ Paul Fain, “College-Ready in California,” Inside Higher Ed (February 27, 2013). <http://www.insidehighered.com/news/2013/02/27/study-looks-k12-community-college-transition-california>

²² California Community Colleges, “System Strategic Plan, 2013 Update.” http://californiacommunitycolleges.cccco.edu/Portals/0/reportsTB/2013StrategicPlan_062013.pdf

²³ Ibid.

²⁴ Adapted from Paul Fain, “College-Ready in California,” op. cit.

level courses than their peers in the previous year; 53 percent versus 5.5 percent, a nearly ten-fold improvement.²⁵

COMMUNITY COLLEGE ENROLLMENT

At the national level, community college enrollment is increasing. Enrollment data from the National Center for Education Statistics’ (NCES) Integrated Postsecondary Education Data System (IPEDS) show that between Fall 2008 and Fall 2012, national community college enrollment increased by 1.9 percent annually.

Within California, due to draconian budget cuts in 2008-2012 (see Section IV), community college enrollment has declined by an average of 1.9 percent annually, with a more pronounced decline in the eight community colleges closest to FHDA (at -2.16 percent), and even more at Foothill College and De Anza College (combined at -3.23 percent).²⁶

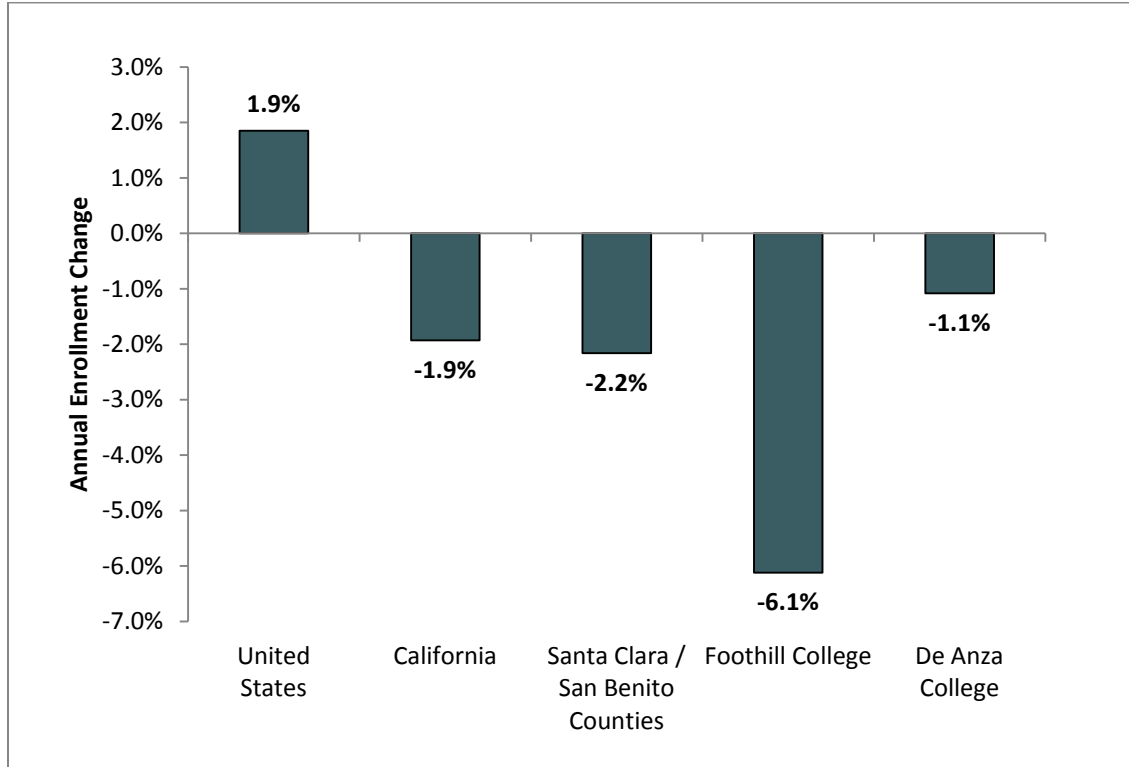
Figure 2.12: Community College Enrollment (Total Fall Headcount), 2008-2012

LOCATION	2008	2009	2010	2011	2012	CAGR
United States	6,623,816	7,285,413	7,528,794	7,403,218	7,127,777	1.85%
California	1,603,372	1,647,471	1,622,231	1,555,938	1,483,128	-1.93%
Santa Clara / San Benito Counties	128,820	134,967	132,557	122,622	118,063	-2.16%
Foothill College	19,837	18,145	18,474	15,230	15,410	-6.12%
De Anza College	24,677	25,316	25,989	23,371	23,625	-1.08%

²⁵ Paul Fain, “Redefining College-Ready,” Inside Higher Ed (February 19, 2013). <http://www.insidehighered.com/news/2013/02/19/two-community-colleges-get-serious-about-working-k12#ixzz2mdzOJqI2>

²⁶ “IPEDS Data Center.” National Center for Education Statistics. <http://nces.ed.gov/ipeds/datacenter/>

Figure 2.13: Community College Annual Enrollment Change, 2008-2012



Source: NCES

Note that California government agencies report 2.3 million students total in community colleges²⁷—the NCES statistics presumably leave out part-time students. The table below (Figure 2.14) lists enrollment data for all two-year public schools located within 25 miles of FHDA (from nearest to furthest).

²⁷ California Community Colleges, “Key Facts.”
<http://californiacommunitycolleges.cccco.edu/PolicyInAction/KeyFacts.aspx>

Figure 2.14: Enrollment at Two-Year Public Schools in FHDA's Area (2008-2013)

COLLEGE	2008	2009	2010	2011	2012	2013 (FALL)	CAGR
Foothill College	19,837	18,145	18,474	15,230	15,410	15,067	-5.35%
De Anza College	24,677	25,316	25,989	23,371	23,625	23,833	-0.69%
West Valley College	10,585	12,232	11,709	11,609	10,287	10,300	-0.54%
Mission College	10,154	12,233	11,205	10,431	9,953	9,879	-0.55%
Canada College	5,775	7,286	7,248	6,700	6,783	6,658	2.89%
San Jose City College	11,574	12,502	11,465	10,567	9,657	9,919	-3.04%
Ohlone Community College	11,083	12,042	11,923	11,377	10,172	10,534	-1.01%
College of San Mateo	11,215	10,700	10,588	10,400	9,900	9,548	-3.17%
Chabot College	14,299	14,239	14,143	13,065	13,254	13,112	-1.72%
Evergreen Valley College	9,621	10,272	9,813	9,872	9,022	9,267	-0.75%

Sources: NCES College Navigator; IPEDS

Apart from Canada College, which had unusually low enrollment in 2008, community college enrollment has dropped for all two-year schools in FHDA's area in the past five years. Only a handful of colleges statewide (such as Santa Monica College, San Diego Mesa College, and Saddleback College) have added students since 2008. This decline can be largely attributed to cuts in state funding, classroom overcrowding, and problems with college readiness among high school graduates.

Notably, in terms of graduation rates, transfer-out rates, and overall cost, Foothill College and De Anza College are in very good shape in comparison to area colleges (see Figure 2.15).

Figure 2.15: Graduation Rate, Transfer Rate, and Costs at Two-Year Public Schools in FHDA's Area

COLLEGE	GRADUATION RATE	TRANSFER-OUT RATE	COST FOR TYPICAL AA DEGREE
Foothill College	56%	13%	\$6,994
De Anza College	61%	12%	\$5,237
West Valley College	26%	18%	\$10,246
Mission College	25%	17%	\$8,811
Canada College	12%	19%	\$6,807
San Jose City College	22%	21%	\$11,324
Ohlone Community College	35%	18%	\$10,898
College of San Mateo	12%	17%	\$8,324
Chabot College	20%	18%	\$6,586
Evergreen Valley College	26%	13%	\$9,395

Source: NCES College Navigator

DEGREE COMPLETIONS

METHODOLOGY

Hanover typically evaluates demand for new degree programs by analyzing changes in the number of degrees completed in different academic disciplines. The NCES publishes degree completions data for all higher education institutions in IPEDS, providing a central source for information on a wide range of educational trends. The degree completions method, while indirect, allows us to approximate demand for a wide range of disciplines. We can infer that in disciplines where the number of degree completions is increasing, student demand for such programs is trending upward. The degree completions method of analysis is particularly effective when used to compare a small set of academic disciplines.²⁸

This analysis method is less effective at predicting degree demand across *all* academic fields because of inconsistencies throughout the IPEDS database. Notably, IPEDS reorganized its classification of degree programs in 2010. Some degree programs were merged together—and others were divided—to create new classifications. This reorganization complicates the process of comparing pre- and post-2010 completions data. Dramatic changes in completions between the 2009-10 and 2010-11 academic years can often be attributed to these classification changes. To avoid data inconsistencies, we rely only on completions data from the 2010-11 and 2011-12 academic years to calculate growth rate. It is important to note that two years of data provides a very small sample, and it is difficult to project future program growth based on such a small sample. However, the completions data do highlight fields of study with the potential for future growth.²⁹

IPEDS does not publish degree completion data below the state level, so this report contains no degree completion analysis for Santa Clara County or the San Jose-Santa Clara-Sunnyvale MSA.

NATIONAL—ASSOCIATE'S DEGREE

National completions at the associate-degree level indicate growing demand for degrees in technical fields, particularly in the healthcare industry. Completions in disciplines such as medical insurance specialist/medical biller, respiratory therapy technician/assistant, cardiovascular technology/technician, and pre-nursing studies have increased over the past five years (see Figure 2.16). Degree completions data also indicate growing demand for computer-related academic programs. Completions in computer support specialist and general computer programming programs have increased over the past year, although demand for computer support specialist programs is difficult to evaluate because of a dramatic increase in completions between the 2010-11 and 2011-12 academic years. While it is not impossible that student degree completions increased by 347.5 percent in a single

²⁸ "IPEDS Data Center," op. cit.

²⁹ Ibid.

year, it is more likely that changes in reporting at one or more institutions is responsible for the scale of the completions increase.³⁰

The most popular national associate degree completions are more easily discernible and less subject to reporting inconsistencies than the fastest-growing degree programs. The most-commonly chosen fields of study among all associate degree programs, displayed in Figure 2.17, are general studies and related disciplines. Programs in liberal arts and sciences, general studies, and humanities account for four of the top 10 most common degree programs. Other popular degree programs include registered nursing, business administration and management, and medical/clinical assistant.³¹

Figure 2.16: Fastest-Growing Associate’s Degree Fields of Study in the U.S.

FIELD OF STUDY	2010-11	2011-12	% GROWTH
Computer Support Specialist	282	1,262	347.5%
Medical Insurance Specialist/Medical Biller	2,440	4,319	77.0%
Respiratory Therapy Technician/Assistant	528	897	69.9%
Cardiovascular Technology/Technologist	702	1,130	61.0%
Recording Arts Technology/Technician	1,074	1,716	59.8%
Energy Management and Systems Technology/Technician	566	838	48.1%
Computer Programming/Programmer, General	1,895	2,694	42.2%
Pre-Nursing Studies	734	1,023	39.4%
Baking and Pastry Arts/Baker/Pastry Chef	2,357	3,271	38.8%
Securities Services Administration/Management	1,432	1,968	37.4%

*List only includes degree programs with at least two years of data and at least 500 reported completions in the 2011-2012 academic year.

Source: NCES

Figure 2.17: National Associate Degree Completions, by Discipline

FIELD OF STUDY	COMPLETIONS
Liberal Arts and Sciences/Liberal Studies	242,179
Registered Nursing/Registered Nurse	83,432
General Studies	66,934
Business Administration and Management, General	45,347
Medical/Clinical Assistant	25,185
Business/Commerce, General	17,335
Biological and Physical Sciences	15,793
Liberal Arts and Sciences, General Studies and Humanities	14,211
Humanities/Humanistic Studies	13,518
Culinary Arts, Chef Training	12,968

Source: NCES

³⁰ Ibid.

³¹ Ibid.

NATIONAL—BACHELOR’S DEGREE

Bachelor’s degree completions are also strong indicators of student academic interest. Many students who pursue associate degrees will transfer to four-year institutions to complete a bachelor’s degree, and popular disciplines at the bachelor’s degree level are likely to be of interest to students at two-year institutions. Figure 2.18 displays the academic disciplines that experienced the largest completions increases in the 2011-12 academic year. The most popular bachelor’s-level academic disciplines in the 2011-12 academic year, displayed in Figure 2.19, were business administration and management, psychology, and registered nursing.³²

Figure 2.18: Fastest-Growing Bachelor’s Degree Fields of Study, 2007-08 to 2011-12

FIELD OF STUDY	2010-11	2011-12	% GROWTH
Corrections and Criminal Justice, Other	1,148	1,814	58.0%
Behavioral Sciences	3,673	5,220	42.1%
Hospital and Health Care Facilities Administration/Management	2,366	3,310	39.9%
Multi-/Interdisciplinary Studies, General	1,595	2,157	35.2%
Communication, General	5,525	7,108	28.7%
Computer and Information Systems Security/Information Assurance	2,884	3,701	28.3%
Health/Health Care Administration/Management	5,645	7,033	24.6%
Education, Other	1,653	2,012	21.7%
Human Services, General	5,299	6,414	21.0%
Athletic Training/Trainer	2,844	3,416	20.1%

*List only includes degree programs with two years of data and at least 1,500 completions in the 2011-2012 academic year.

Source: NCES

Figure 2.19: National Bachelor’s Degree Completions, 2011-12 Academic Year

FIELD OF STUDY	COMPLETIONS
Business Administration and Management, General	144,202
Psychology, General	108,555
Registered Nursing/Registered Nurse	92,388
Biology/Biological Sciences, General	66,247
English Language and Literature, General	46,488
Political Science and Government, General	43,572
Elementary Education and Teaching	39,749
History, General	37,807
Finance, General	34,921
Marketing/Marketing Management, General	33,910

Source: NCES

³² Ibid.

CALIFORNIA—ASSOCIATE’S DEGREE

The fastest-growing AA/PSNDA degree fields of study in California in the 2011-12 academic year were electrical and power installation, computer support services, hazardous materials management, diesel mechanic technology, and medical administration, though notably the total number of jobs in these fields is relatively low. Completions were highest for general fields (liberal arts, social sciences), with the highest totals for specialized fields are in registered nursing and childcare.

Figure 2.20: Fastest-Growing AA/PSNDA Degree Fields of Study in California

FIELD OF STUDY	2010-11	2011-12	% GROWTH
Electrical and Power Transmission Installation/Installer, General	105	268	155.2%
Computer and Information Sciences and Support Services, Other	107	213	99.1%
Hazardous Materials Management and Waste Technology/Technician	156	261	67.3%
Diesel Mechanics Technology/Technician	125	204	63.2%
Medical Administrative/Executive Assistant and Medical Secretary	162	256	58.0%
Computer Programming/Programmer, General	269	403	49.8%
Electrical/Electronics Equipment Installation and Repair, General	555	788	42.0%
Drafting and Design Technology/Technician, General	322	442	37.2%
Biomedical Technology/Technician	174	236	35.6%
Photographic and Film/Video Technology/Technician and Assistant	241	319	32.4%

* List only includes degree programs with two years of data and at least 100 completions in 2011-2012 academic year.
Source: NCES

Figure 2.21: California AA/PSNDA Degree Completions (2010-11 and 2011-12 Combined)

FIELD OF STUDY	COMPLETIONS
Liberal Arts and Sciences/Liberal Studies	70,547
Biological and Physical Sciences	15,868
Social Sciences, General	14,218
Humanities/Humanistic Studies	13,671
Registered Nursing/Registered Nurse	12,339
Child Care Provider/Assistant	12,095
Criminal Justice/Police Science	10,296
Business Administration and Management, General	9,743
Accounting Technology/Technician and Bookkeeping	5,943
Automobile/Automotive Mechanics Technology/Technician	5,269

Source: NCES

CALIFORNIA—BACHELOR’S DEGREE

Bachelor’s degree completions in business administration, criminal justice, graphic design, interior design, and computer-related professions increased substantially between the 2010-11 and 2011-12 academic years. High-growth academic fields include registered nursing (a continuation from the AA degree), webpage design, multimedia work, and game design.³³

Figure 2.22: Fastest-Growing Bachelor’s Degree Fields of Study in California

FIELD OF STUDY	2010-11	2011-12	% GROWTH
Registered Nursing/Registered Nurse	22	337	1431.8%
Web Page, Digital/Multimedia and Information Resources Design	66	110	66.7%
Restaurant, Culinary, and Catering Management/Manager	65	103	58.5%
Business, Management, Marketing, and Related Support Services	145	214	47.6%
Intermedia/Multimedia	62	83	33.9%
Design and Visual Communications, General	67	83	23.9%
Game and Interactive Media Design	159	194	22.0%
Business Administration, Management and Operations, Other	541	642	18.7%

* List only includes degree programs with two years of data and at least 75 completions in 2011-12 academic year.
Source: NCES

Clearly the growth rate for registered nursing bachelor’s degrees is a statistical artifact due to a change in reporting methods, but the fact remains that registered nursing is a strong growth field both nationally and within California for the AA/BS degree, with predicted shortages for years to come.

Figure 2.23: California Bachelor’s Degree Completions (2010-11 and 2011-12)

FIELD OF STUDY	COMPLETIONS
Business Administration, Management and Operations, Other	1183
Business Administration and Management, General	1146
Criminal Justice/Law Enforcement Administration	638
Graphic Design	484
Interior Design	476
Computer Graphics	422
Recording Arts Technology/Technician	367
Electrical, Electronic and Communications Engineering Technology/Technician	364
Business, Management, Marketing, and Related Support Services, Other	359
Registered Nursing/Registered Nurse	359

Source: NCES

³³ Ibid.

SECTION III: DEMOGRAPHIC TRENDS

This section provides an overview of the demographic trends occurring at the national, state, and local level. The data in this section were taken from projections published by the U.S. Census Bureau and the CDOF.

UNITED STATES

POPULATION

The U.S. Census Bureau projects that the U.S. population will grow over the next three decades, increasing from over 321.4 million to 380.0 million between 2015 and 2040 (see Figures 3.1a and 3.1b). The national rate of population growth, however, is expected to decline steadily in the decades to come. The Census Bureau estimates that the U.S. population will increase by 12,533,000 between 2015 and 2020, but it predicts that the U.S. population will only increase by 10,354,000 between 2035 and 2040 (see Figure 3.2a).³⁴

In the near future, most of this population growth will result from net natural change. Net natural change measures the population change resulting from changes in the current population, ignoring the effects of migration to and from the country. Net natural change is calculated by subtracting the number of annual deaths from the number of annual births within the country. The Census Bureau projects, though, that by 2035, net migration to the United States will overtake net natural change as the primary source of the nation’s population growth (see Figures 3.2a and 3.2b).³⁵

Figure 3.1a: U.S. Total Population Projections, 2015-2040

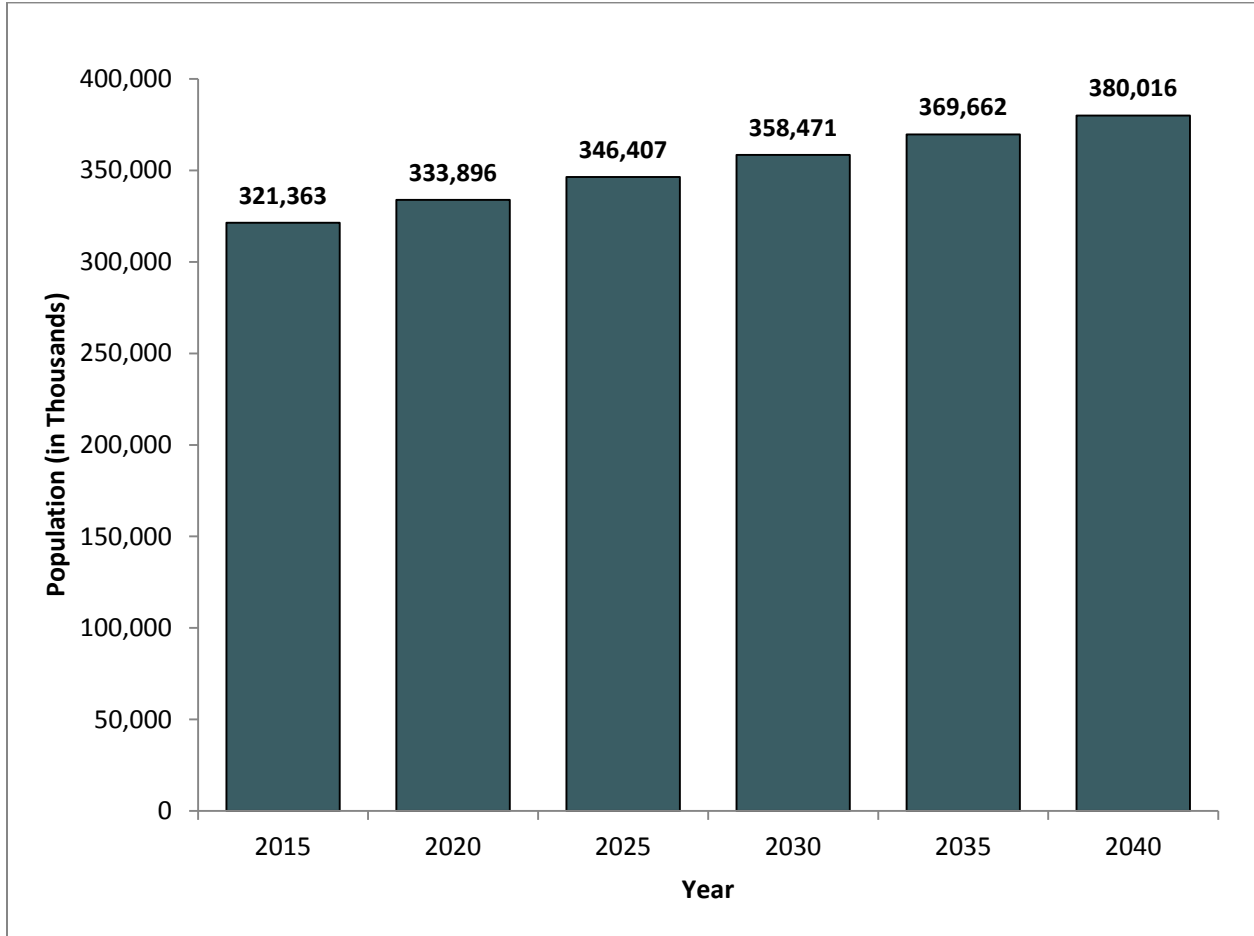
2015	2020	2025	2030	2035	2040	CAGR
321,363,000	333,896,000	346,407,000	358,471,000	369,662,000	380,016,000	0.67%

Source: U.S. Census Bureau

³⁴ “Table 1. Projections of the Population and Components of Change for the United States: 2015 to 2060.” U.S. Census Bureau, December, 2012. Downloaded from <http://www.census.gov/population/projections/data/national/2012/summarytables.html>

³⁵ Ibid.

Figure 3.1b: U.S. Total Population Projections, 2015-2040



Source: U.S. Census Bureau

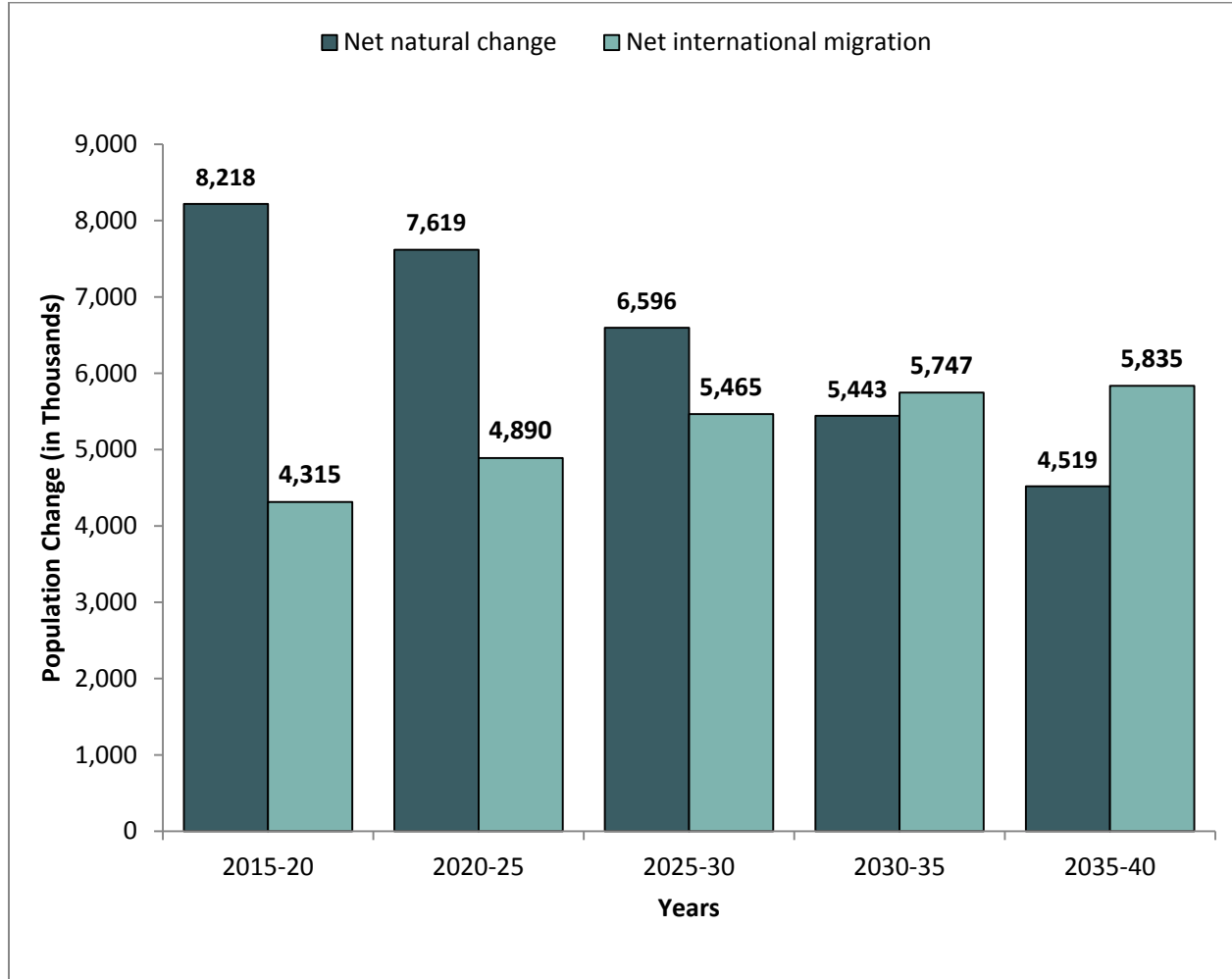
Figure 3.2a: U.S. Population Change Projections, 2015-2040

METRIC	YEARS				
	2015-20	2020-25	2025-30	2030-35	2035-40
Net natural change	8,218,000	7,619,000	6,596,000	5,443,000	4,519,000
Net international migration	4,315,000	4,890,000	5,465,000	5,747,000	5,835,000
Total Net Change	12,533,000	12,509,000	12,061,000	11,190,000	10,354,000

*Note: Natural change and international migration projections may not correspond exactly to overall population projections due to rounding.

Source: U.S. Census Bureau

Figure 3.2b: U.S. Population Change Projections, 2015-2040



Source: U.S. Census Bureau

SEX

The current U.S. population is split almost evenly between female and male citizens. Currently, approximately 50.7 percent of all U.S. citizens are female, and 49.3 percent are male. The Census Bureau predicts that over the next 25 years, male residents will account for a larger share of the population than at present, comprising 49.6 percent of all U.S. citizens by 2040.³⁶ The current U.S. male-to-female ratio of 0.97 is similar to the ratio in other North American and Western European countries, such as Canada (0.99), Mexico (0.96), The United Kingdom (0.99), and Germany (0.97).³⁷

Figure 3.3: Projected Distribution of U.S. Population by Sex, 2015-2040

SEX	YEAR					
	2015	2020	2025	2030	2035	2040
Female	50.7%	50.6%	50.6%	50.5%	50.5%	50.4%
Male	49.3%	49.4%	49.4%	49.5%	49.5%	49.6%

Source: U.S. Census Bureau

RACE/ETHNICITY

The population of the United States is currently 77.4 percent white, 13.2 percent Black, 5.3 percent Asian, 1.3 percent American Indian or Alaska Native, and 0.2 percent Native Hawaiian or Pacific Islander. 2.6 percent of Americans identify as multiracial (see Figure 3.4). In the next 25 years, the Census Bureau projects that the percentage of White citizens will decline, while the percentage of citizens from every other racial group will increase. The Asian and multiracial populations, in particular, are expected to account for a much larger percentage of the population by 2040.³⁸

Figure 3.4: Projected Distribution of U.S. Population by Race, 2015-2040

RACE	YEAR					
	2015	2020	2025	2030	2035	2040
White	77.4%	76.5%	75.6%	74.7%	73.7%	72.7%
Black	13.2%	13.4%	13.6%	13.7%	13.9%	14.1%
Asian	5.3%	5.7%	6.0%	6.4%	6.7%	7.1%
American Indian/Alaska Native	1.3%	1.3%	1.3%	1.4%	1.4%	1.4%
Native Hawaiian/Pacific Islander	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%
Two or more races	2.6%	2.9%	3.3%	3.6%	4.0%	4.4%

Source: U.S. Census Bureau

³⁶ "Table 2. Projections of the Population by Selected Age Groups and Sex for the United States: 2015 to 2060." U.S. Census Bureau, December, 2012. Downloaded from <http://www.census.gov/population/projections/data/national/2012/summarytables.html>

³⁷ "Field Listing:: Sex Ratio." CIA World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/fields/2018.html>

³⁸ "Table 5. Percent Distribution of the Projected Population by Sex, Race, and Hispanic Origin for the United States: 2015 to 2060." U.S. Census Bureau, December, 2012. Downloaded from <http://www.census.gov/population/projections/data/national/2012/summarytables.html>

AGE

The Census Bureau projects that the general population will age significantly over the next 25 years. Approximately 40.9 percent of U.S. citizens are currently over the age of 44. By 2040, the percentage of citizens over the age of 44 will increase to 44.3 percent (see Figure 3.5). The number of citizens older than 64 in particular is expected to increase substantially. The Census Bureau predicts that the percentage of citizens older than 64 among the general population will increase from 14.8 percent to 21.0 percent between 2015 and 2040. This aging of the population has significant implications for future generations, as society, the economy, and the healthcare system all must adapt to meet the needs of an aging population.³⁹

Figure 3.5: Projected Distribution of U.S. Population by Age Group, 2015-2040

AGE	YEAR					
	2015	2020	2025	2030	2035	2040
<14	18.0%	17.8%	17.8%	17.5%	17.1%	16.9%
14-17	5.2%	5.0%	4.8%	5.0%	4.9%	4.9%
18-24	9.6%	9.0%	8.7%	8.5%	8.7%	8.7%
25-44	26.2%	26.5%	26.5%	26.2%	25.7%	25.3%
45-64	26.1%	24.9%	23.4%	22.6%	22.6%	23.3%
65+	14.8%	16.8%	18.8%	20.3%	20.9%	21.0%

Source: U.S. Census Bureau

CALIFORNIA AND SILICON VALLEY

CALIFORNIA POPULATION

The California Department of Finance (CDOF) projects that the population of California will increase by 10.6 million between 2010 and 2040, growing at an average rate of 0.65 percent per year (see Figures 3.6a and 3.6b). **This projected annual growth rate correlates almost exactly with the national growth rate.**⁴⁰ The slowly declining rate of population growth is due in large part to plateauing immigration rates and a plummeting birth rate.

³⁹ "Table 3. Percent Distribution of the Projected Population by Selected Age Groups and Sex for the United States: 2015 to 2060." U.S. Census Bureau, December 2012. Downloaded from <http://www.census.gov/population/projections/data/national/2012/summarytables.html>

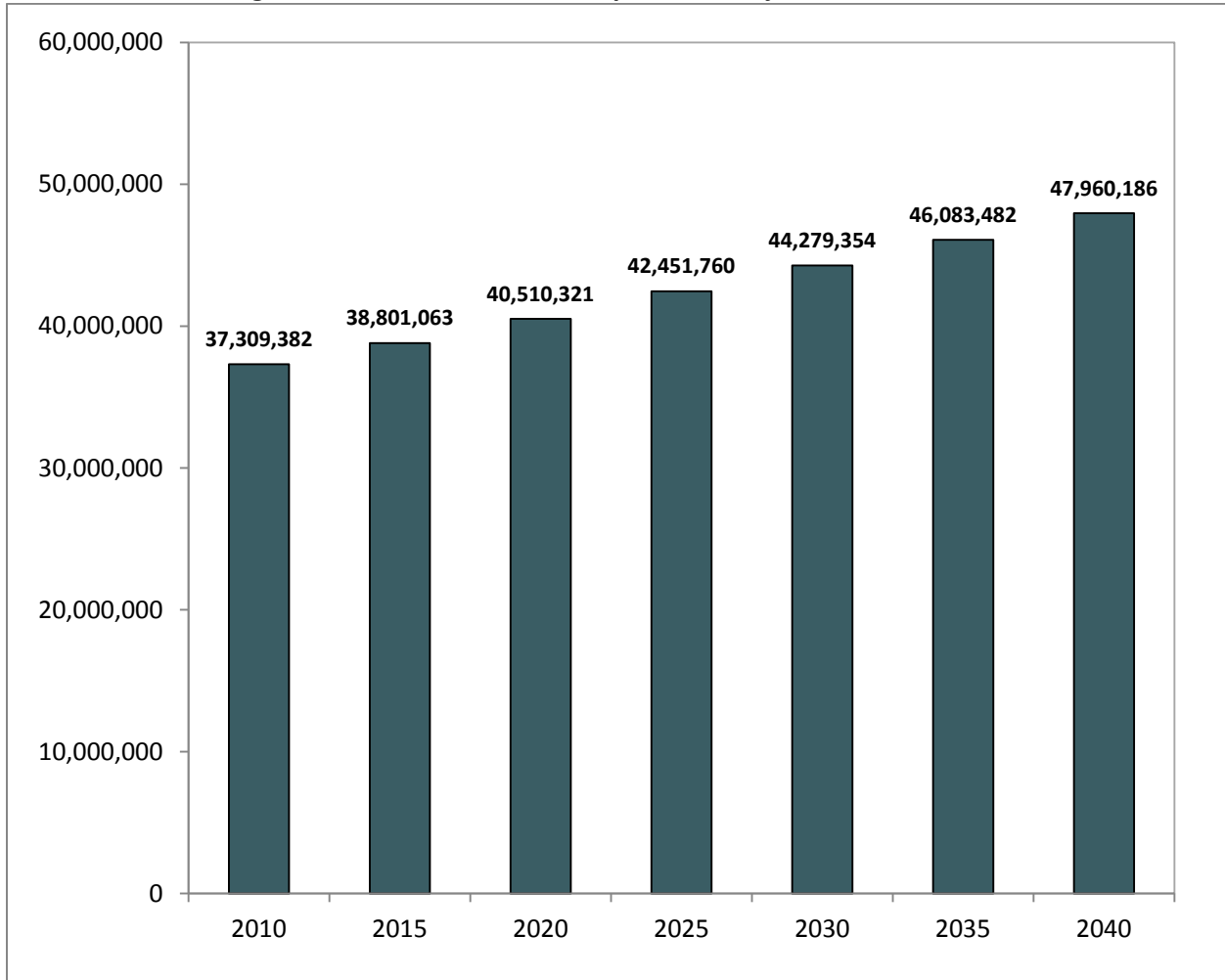
⁴⁰ "Arizona Population Projections: 2012 to 2050, Medium Series. Table 1: Total Population & Components of Population Change." Arizona Office of Employment and Population Statistics, December 7, 2012. Downloaded from <http://www.workforce.az.gov/population-projections.aspx>

Figure 3.6a: California Total Population Projections, 2010-2040

2010	2015	2020	2025	2030	2035	2040	CAGR
37,309,382	38,801,063	40,510,321	42,451,760	44,279,354	46,083,482	47,960,186	0.65%

Source: CDOF

Figure 3.6b: California Total Population Projections, 2010-2040



SILICON VALLEY POPULATION

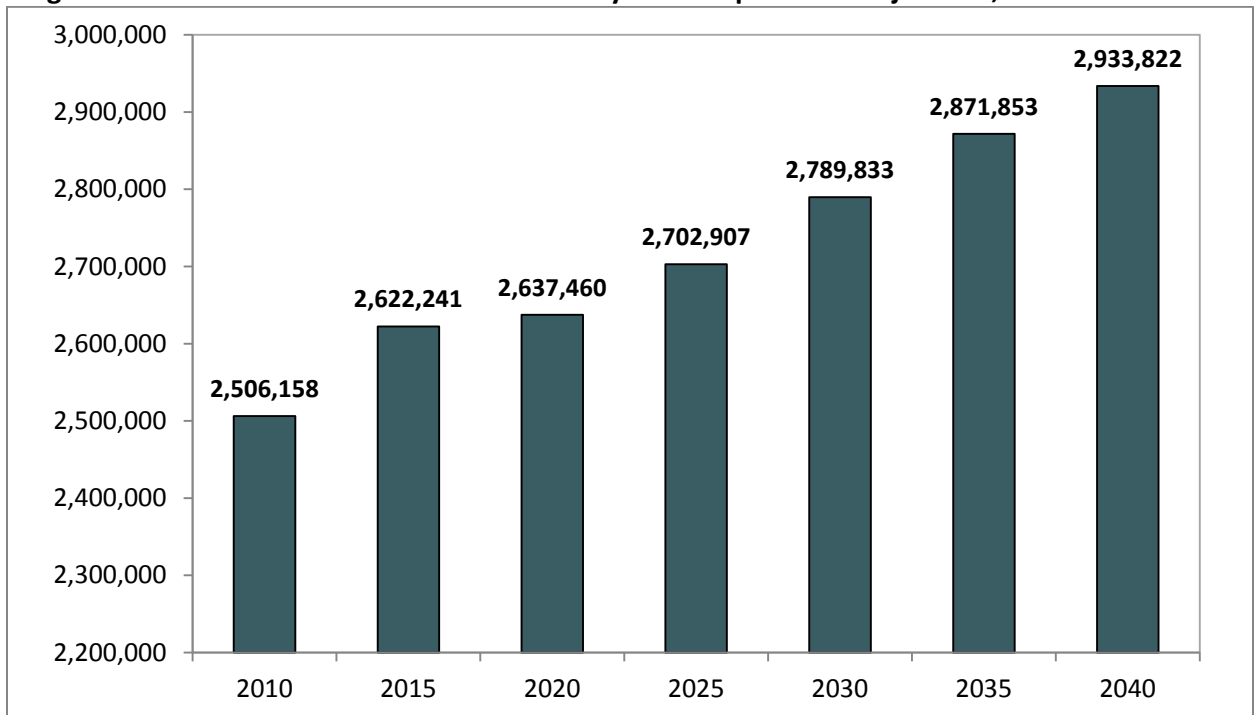
CDOF projects that Silicon Valley’s population will increase consistently over the next three decades, albeit at a somewhat slower pace (0.4 percent annually) than California and the U.S. as a whole.

Figure 3.7a: Santa Clara and San Mateo County Total Population Projections, 2010-2040

2010	2015	2020	2025	2030	2035	2040	CAGR
2,506,158	2,622,241	2,637,460	2,702,907	2,789,833	2,871,853	2,933,822	0.40%

Source: CDOF

Figure 3.7b: Santa Clara and San Mateo County Total Population Projections, 2010-2040



SEX

California’s population has a similar male-to-female ratio in relation to the United States as a whole, with women slightly outnumbering men. CDOF projects that this ratio will hold roughly steady through 2040. Within Silicon Valley, the male-to-female ratio will increase slightly for San Mateo County and decrease slightly for Santa Clara County.

Figure 3.8: Projected Distribution of Population by Sex, 2010-2040

LOCATION	SEX	YEAR						
		2010	2015	2020	2025	2030	2035	2040
California	Female	50.3%	50.18%	50.15%	50.14%	50.17%	50.2%	50.24%
	Male	49.7%	49.82%	49.85%	49.86%	49.83%	49.8%	49.76%
San Mateo County	Female	50.85%	50.7%	50.79%	50.75%	50.67%	50.65%	50.64%
	Male	49.15%	49.3%	49.21%	49.25%	49.33%	49.35%	49.36%
Santa Clara County	Female	49.85%	49.78%	49.96%	50.03%	50.21%	50.35%	50.48%
	Male	50.15%	50.22%	50.04%	49.97%	49.79%	49.65%	49.52%

Source: CDOF

RACE/ETHNICITY

As shown by CDOF data, Silicon Valley is predominantly Latino by a small margin, with this margin projected to increase by 2060. This tracks closely with California as a whole, which has a current slight White majority but will be heavily Latino by 2060. Latino population growth will make up roughly two-thirds of total population growth in both California and Silicon Valley in the next fifty years.

Figure 3.9: Projected Total Population of California and Silicon Valley Population by Race, 2010-2060

YEAR	LOCATION	TOTAL	WHITE	BLACK	AMERICAN INDIAN	ASIAN	PACIFIC ISLANDER	HISPANIC/LATINO	MULTI-RACE
2010	California	37,309,382	15,024,945	2,188,296	163,040	4,827,438	131,415	14,057,596	916,651
	San Mateo	719,729	303,475	19,474	1,134	178,665	10,225	184,420	22,337
	Santa Clara	1,786,429	627,438	43,926	4,085	573,622	6,413	481,108	49,838
2020	California	40,643,643	14,877,111	2,258,934	175,465	5,432,231	151,810	16,573,840	1,174,252
	San Mateo	747,563	272,706	21,919	1,255	199,530	11,643	210,207	30,303
	Santa Clara	1,889,898	577,055	47,337	4,666	635,692	9,343	550,271	65,534
2030	California	44,279,354	15,107,321	2,341,428	182,307	6,029,513	166,512	19,020,889	1,431,384
	San Mateo	803,288	268,740	20,692	1,235	214,226	12,700	247,161	38,534
	Santa Clara	1,986,545	565,642	46,718	4,657	676,602	10,162	599,435	83,328
2040	California	47,690,186	15,328,584	2,386,806	186,492	6,493,037	186,375	21,446,262	1,662,630
	San Mateo	850,112	259,472	19,442	1,189	227,801	13,295	282,278	46,633
	Santa Clara	2,083,710	548,881	44,781	4,519	728,883	10,449	645,582	100,616
2050	California	50,365,074	15,460,624	2,350,153	186,818	6,809,555	201,554	23,512,393	1,843,977
	San Mateo	895,603	249,213	18,221	1,118	242,682	13,767	318,100	52,502
	Santa Clara	2,152,199	524,328	42,405	4,254	773,856	10,489	683,215	113,652
2060	California	52,693,583	15,657,920	2,267,181	185,254	7,075,984	211,142	25,288,835	2,007,267
	San Mateo	928,706	239,680	17,195	1,040	248,398	14,011	350,440	57,942
	Santa Clara	2,198,503	503,027	39,935	3,958	788,056	10,570	726,973	125,984

Source: CDOF

Interpreted in percentage terms, this works out to the following:

**Figure 3.10: California and Silicon Valley Population Projections by Race/Ethnicity
(Numeric and Percent Change, 2010-2060)**

LOCATION	TOTAL	WHITE	BLACK	AMERICAN INDIAN	ASIAN	PACIFIC ISLANDER	HISPANIC/LATINO	MULTI-RACE
California	41% (15,384,201)	4% (632,975)	4% (78,885)	14% (22,214)	47% (2,248,546)	61% (79,726)	80% (11,231,239)	119% (1,090,616)
San Mateo	29% (208,977)	-21% (-63,795)	-12% (-2,279)	-8% (-94)	39% (69,733)	37% (3,787)	90% (166,020)	159% (35,606)
Santa Clara	23% (412,074)	-20% (-24,410)	-8% (-3,991)	-3% (-126)	37% (214,434)	65% (4,157)	51% (245,865)	153% (76,146)

Source: CDOF

AGE

California's population is projected to age over the next three decades along roughly the same lines as the wider U.S. population. Most notably, there will be a large increase in the 60+ population as the baby boom generation reaches retirement age.

Figure 3.11: Projected Distribution of California by Age Group, 2010-2040

AGE	2010	2015	2020	2025	2030	2035	2040
Total	37,309,382	38,801,063	40,643,643	42,451,760	44,279,354	46,083,482	47,690,186
0-4	2,521,012	2,602,240	2,713,450	2,765,798	2,785,222	2,790,028	2,799,558
5-9	2,497,147	2,514,778	2,618,264	2,729,174	2,794,466	2,827,434	2,829,175
10-14	2,586,000	2,504,638	2,562,087	2,665,503	2,791,141	2,873,066	2,903,901
15-19	2,827,906	2,697,006	2,656,737	2,713,329	2,831,806	2,970,730	3,052,822
20-24	2,775,855	2,935,110	2,842,087	2,798,212	2,867,782	3,000,603	3,140,748
25-29	2,752,409	2,745,945	2,939,168	2,841,269	2,807,569	2,888,537	3,023,510
30-34	2,587,433	2,761,735	2,784,313	2,977,681	2,889,455	2,864,665	2,943,516
35-39	2,557,149	2,583,682	2,789,410	2,809,130	3,019,439	2,941,764	2,912,886
40-44	2,610,422	2,544,576	2,590,124	2,801,040	2,828,638	3,057,821	2,977,210
45-49	2,676,901	2,581,439	2,534,014	2,583,473	2,803,863	2,839,229	3,074,155
50-54	2,569,737	2,630,446	2,551,210	2,509,164	2,566,021	2,793,192	2,825,807
55-59	2,221,128	2,508,341	2,582,503	2,510,641	2,476,902	2,540,305	2,764,973
60-64	1,854,741	2,136,959	2,427,563	2,508,859	2,447,481	2,422,508	2,486,615
65-69	1,315,480	1,742,864	2,024,631	2,314,349	2,404,020	2,356,531	2,336,761
70-74	977,891	1,192,313	1,594,575	1,871,080	2,154,378	2,253,108	2,218,137
75-79	767,530	839,531	1,035,953	1,401,118	1,661,586	1,930,779	2,033,132
80-84	604,308	604,375	673,727	842,931	1,156,089	1,390,256	1,632,539
85-89	399,167	406,235	417,119	475,044	606,420	847,264	1,037,348
90-94	160,375	206,437	219,621	232,933	273,662	357,974	512,445
95-99	41,964	56,524	78,459	89,090	99,485	121,764	164,460
100+	4,826	5,889	8,628	11,943	13,930	15,924	20,488

Source: CDOF

Figure 3.12: Projected Distribution of San Mateo and Santa Clara Counties by Age Group, 2010-2040

AGE	2010	2015	2020	2025	2030	2035	2040
Total	2,506,158	2,622,241	2,637,460	2,702,907	2,789,833	2,871,853	2,933,822
0-4	170,415	172,869	165,542	160,968	165,555	172,369	176,176
5-9	166,844	171,092	169,626	165,411	162,053	166,582	172,906
10-14	156,822	167,547	168,273	170,252	167,402	163,845	167,678
15-19	157,022	162,419	166,696	172,258	175,719	172,872	168,556
20-24	153,414	164,347	161,870	171,290	179,996	183,407	179,393
25-29	182,189	162,006	164,434	166,411	179,154	188,686	191,002
30-34	187,518	188,913	161,832	166,991	171,783	185,266	194,458
35-39	193,229	189,714	184,379	160,699	167,859	173,057	186,206
40-44	192,563	193,035	182,028	181,408	158,836	166,255	170,839
45-49	193,814	191,002	184,646	178,438	179,021	156,239	163,124
50-54	180,368	190,901	182,515	180,705	175,726	176,177	152,760
55-59	151,382	176,041	180,973	177,529	177,215	172,230	171,874
60-64	125,830	145,500	163,825	173,623	172,058	171,800	166,342
65-69	89,688	118,260	132,261	154,170	165,568	164,307	163,738
70-74	67,837	81,450	104,300	121,068	143,181	154,215	153,042
75-79	52,557	58,586	68,813	91,169	107,582	127,776	137,938
80-84	41,412	41,503	46,024	55,581	74,995	89,331	106,704
85-89	28,219	27,834	28,064	32,101	39,658	54,359	65,600
90-94	11,655	14,662	15,147	15,802	18,700	23,597	33,178
95-99	3,058	4,125	5,582	6,189	6,823	8,426	10,943
100+	305	434	629	842	949	1,058	1,364

Source: CDOF

SECTION IV: POLITICAL TRENDS

This section summarizes the political trends affecting community colleges. We pay particular attention to state funding policies. Government funding has decreased for community colleges across the country. As public institutions, community colleges rely on state appropriations as a major source of revenue. The recent economic recession and related financial challenges have led the federal government and various state governments to reduce budgets in all departments. Cuts in appropriations to community colleges, in particular, have been severe.

CALIFORNIA FUNDING

As briefly noted in earlier sections, student enrollment rates in California's community colleges have dropped to a 20-year low in the wake of unprecedented cuts in state funding. Colleges have reduced staff, cut courses, and increased class sizes—all of which have led to declines in student access. **Funding for California community colleges has been cut by \$1.5 billion since 2007-08.** As one report notes:

Proposition 30 (passed by voters in November 2012) partially reversed the trend, leading to \$210 million in additional funding for 2012-13. Still, the size of the increase pales in comparison to the size of the cuts in recent budgets. The most common feature in the long-term budget picture for the community college system has been the year to year volatility in the level of funding. The California Legislature, which has the sole authority to set student fees at the colleges, has nearly doubled the fees over the past decade. But the increase in revenue from the fees has not compensated for the decline in state funding. The end result has been a reduction in total funding on a per-student basis throughout the community college system. Faced with this shortfall, the colleges have responded by cutting both staff and courses.⁴¹

In the past five years, course offerings have declined by up to 21 percent for spring/fall courses and 60 percent for summer courses. **California ranks last among states in funding per college student from state appropriations and tuition and fees.** The 2013-14 state budget for California community colleges is as follows:⁴²

- \$25 million for Adult Education and \$15.7 million for Apprenticeship shift from K-12 to California Community Colleges;
- \$89 million to increase access;
- \$87.5 million for Cost of Living Adjustment (COLA);

⁴¹ Public Policy Institute of California, "The Impact of Budget Cuts on California's Community Colleges." March 2013. http://www.ppic.org/content/pubs/report/R_313SBR.pdf

⁴² California Community Colleges, "Key Facts," op cit. <http://californiacommunitycolleges.cccco.edu/PolicyInAction/KeyFacts.aspx>

- \$209 million reduction in payment deferrals;
- \$47 million energy efficiency/Proposition 39;
- \$16.9 million for a statewide distance education initiative.

Notably, the California Community Colleges Board of Governors has decided that, due to economic hardship, it must prioritize community college attendance by putting first-year students, active-duty military, and students from low-income backgrounds at the front of the line.⁴³ Finally, it is worth noting that local politics have been trending more democratic in recent years, which may end up having implications for funding decisions.⁴⁴

Figure 4.1: Presidential Election Statistics, Santa Clara County

YEAR	GOP	DNC	OTHERS
2012	27.2% (174,843)	70.2% (450,817)	2.5% (16,290)
2008	28.6% (190,039)	69.5% (462,241)	1.8% (12,255)
2004	34.6% (209,094)	63.9% (386,100)	1.4% (8,622)
2000	34.4% (188,750)	60.7% (332,490)	4.9% (26,889)
1996	32.2% (168,291)	56.9% (297,639)	11.0% (57,361)

Source: sos.ca.gov

NATIONAL FUNDING

Funding reductions in California are drastic compared to most of the country, though it is worth noting that appropriations declined by an average of 15 percent at community colleges across the country in 2010. According to American Institutes for Research (AIR), the severity of this decline in funding is unique to community colleges. AIR asserts that, compared to other types of higher education institutions, “community colleges suffered the deepest cuts in state and local appropriations per student in 2010.” In addition, as other types of higher education institutions introduced steep tuition increases to compensate for shrinking budgets, many community colleges strove to remain affordable for students by proposing below-average tuition increases. The result of increasing community college enrollment (driven by the economic recession), declining state funding, and small tuition increases was a dramatic reduction in the resources available on a per-student basis.⁴⁵

Higher education institutions of all types decreased spending – often for maintenance and operation – in the face of budget shortfalls, but community colleges executed spending cuts

⁴³ Anna Susman, “California Community Colleges Likely to Prioritize Student Enrollment Because of Budget Cuts.” July 11, 2012. http://www.huffingtonpost.com/2012/07/11/california-community-coll_n_1665108.html

⁴⁴ California Secretary of State, “Registration by Political Subdivision by County.” <http://www.sos.ca.gov/elections/ror/ror-pages/15day-general-12/politicalsub1.pdf>

⁴⁵ D. M. Desrocher, D.M., and R.J. Kirshstein. “College Spending in a Turbulent Decade: Findings From the Delta Cost Project.” American Institutes for Research, 2012. pp. 3-6. <http://www.deltacostproject.org/pdfs/Delta-Cost-College-Spending-In-A-Turbulent-Decade.pdf>

unparalleled by other types of higher education institutions. Between 2009 and 2010, community colleges decreased spending on instruction, research, student services, public service, academic support, institutional support, and operation and maintenance for an overall reduction in spending of 8.3 percent (see Figure 4.2). In contrast, public bachelor’s-level institutions reduced overall spending by only 1.9 percent, and private bachelor’s-level institutions reduced overall spending by only 2.3 percent.⁴⁶

Figure 4.2: Changes in Higher Education Spending, 2009-2010, by Institution Type

SPENDING CATEGORY	COMMUNITY COLLEGE		PUBLIC BACHELOR’S		PRIVATE BACHELOR’S	
	2010 SPENDING PER FTE STUDENT	SPENDING CHANGE 2009-2010	2010 SPENDING PER FTE STUDENT	SPENDING CHANGE 2009-2010	2010 SPENDING PER FTE STUDENT	SPENDING CHANGE 2009-2010
Instruction	\$4,805	-6.9%	\$6,166	1.7%	\$8,423	-2.0%
Research	\$63	-13.8%	\$455	18.7%	\$456	3.2%
Student services	\$1,184	-6.7%	\$1,659	2.5%	\$3,919	-1.9%
Public service	\$323	-7.5%	\$503	-2.1%	\$615	-2.2%
Academic support	\$919	-8.0%	\$1,442	2.5%	\$2,099	-2.1%
Institutional support	\$1,684	-9.3%	\$2,361	-2.1%	\$5,024	-3.5%
Operation and maintenance	\$1,042	-15.4%	\$1,555	-20.5%	\$2,095	-7.7%
<i>Education and related</i>	<i>\$9,501</i>	<i>-8.3%</i>	<i>\$12,740</i>	<i>-1.9%</i>	<i>\$21,126</i>	<i>-2.3%</i>

Source: Delta Cost Project

⁴⁶ Ibid.

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1750 H Street NW, 2nd Floor
Washington, DC 20006

P 202.756.2971 F 866.808.6585
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