



Institutional Effectiveness, Research & Planning

THE OCCUPATIONAL NEEDS OF NON-TRADITIONAL STUDENTS

Fall 2017

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Introduction

In order to assist the Crafton Hills College (CHC) Enrollment Strategies Committee (ESC) with implementing the Comprehensive Master Plan's Strategic Directions of expanding access to students (Strategic Direction 4) and of enhancing value to the surrounding community (Strategic Direction 5), this research study was prepared to understand the occupational and program needs of non-traditional aged students within Crafton's service area. Given the disproportionate impact and a decline in the number of high school graduates in Crafton's primary service area, the ESC requested that the CHC Office of Institutional Effectiveness, Research, and Planning (OIERP) examine program and career interests of non-traditional students 35-44 years old and 45-54 years old, who as of Spring 2017, consist of approximately 25% of enrolled students 25 years old or older.

Summary of Results

For individuals between ages 35-44 years old:

- Nationally, the most prominent positions for the population aged 35-44 are: managers; elementary and middle school teachers; registered nurses; cooks; and software developers.
- The top employment industries in Riverside and San Bernardino counties are elementary and secondary schools, restaurants and other eateries, and medical and surgical hospitals.
- Among currently enrolled Crafton students, the Associate of Science in Health Sciences is the most popular major with 14% declaring it as their major; this is followed by the Associate of Science programs in Radiological Technology (7%) and Business Administration (6%).
- Among those currently enrolled in Crafton, approximately 10% of students are undecided while 6% are undeclared.

For individuals between ages 45-54 years old:

- Nationally, managers; elementary and middle school teachers; registered nurses; chief executives; and accountants and auditors were the most prominent occupations for this age group.
- The top employment industries in Riverside and San Bernardino counties are elementary and secondary schools, individual and family services, and restaurants and other eateries.
- Among currently enrolled Crafton students, the Associate of Science in Health Sciences is the most popular major with 14% declaring it as their major; this is followed by the Associate of Science programs in Business Administration (5%) and the Associate of Arts in Child Development (4%).
- Among those currently enrolled in Crafton, approximately 8% of students are undecided while 14% are undeclared.

Employment projections highlight the importance of obtaining a college education with 13 out of 20 of the fastest growing occupations nationwide requiring a college education. Within California, there is going to be a projected shortage of college graduates relative to economic demand. In San Bernardino County, the occupations with the largest job growth rate during the next 3 years will be postsecondary

teachers; nursing assistants; medical assistants; medical and health services managers; and market research analysts and marketing specialists.

Possible Implications. Based on nationwide employment projections, the higher wages being offered within these occupations, Crafton's own strengths as a college, and its capacity to handle these programs, Crafton may consider offering programs leading to the following occupations:

- Solar photovoltaic installers
- Wind turbine service technicians
- Physical therapist assistants
- Physical therapist aides
- Occupational therapy assistants
- Forest fire inspectors and prevention specialists

Additionally, the employment needs of Crafton's service area look to be within the fields of education and healthcare primarily along with finance, business, and to a lesser degree, computer science/systems. As a result, Crafton may want to consider growing programs within these fields. Specifically, programs teaching management skills could be worth expanding given the amount of individuals nationally who work within management positions within these age groups. Lastly, given the large amount of individuals employed within the public sector in the Inland Empire, Crafton could consider creating a variant of the business management certificate which emphasizes leadership in both public and private spheres. This certificate could include courses in personnel administration, organizational behavior, and public sector labor relations.

Methodology

In order to provide the information requested by ESC, data was collected through multiple data sources. First, national employment data was gathered through the U.S. Bureau of Labor statistics (BLS). The data was obtained from the 2016 Current Population Survey (CPS). This data was broken down by age groupings. The age groups of focus consisted of individuals 35 to 54 years old. A 2017 report on student equity in Crafton Hills College demonstrated that disproportionate impact was present for non-traditional aged students. Moreover, environmental scan projections for high schools in Crafton's primary service area indicated a decline in the number of graduates. As a result, enrollment strategies were requested. More details about the prominent employment industries for individuals in this age group were obtained from the BLS Occupational Outlook Handbook. Additionally, the Occupational Outlook Handbook was used to gather employment projection data at the national level.

To understand employment trends within our immediate area, data was also obtained from the U.S. Census Bureau's Quarterly Workforce Indicators (QWI). Like the CPS data, this was also disaggregate by age. Additionally, data gathered by the Public Policy Institute of California was utilized to examine statewide projections of occupational share to 2030. The Center of Excellence's Labor Market Occupational Projections data was useful in generating a list of the occupations within San Bernardino County that will most likely experience the largest growth in 2018.

Lastly, in order to understand the trends in programs selected by the non-traditional aged student population, information was retrieved from CHC's Student Information System. Program information was extracted for students that were enrolled within the Fall 2017 semester who were 35-54 years old.

Findings

National Employment Data

The first part of the analysis concerns national employment numbers for individuals that are between the ages of 35-44. The analysis was restricted to occupations needing an Associate's degree or higher. The positions listed here are sorted by the number of individuals employed.

- The most prominent positions for the population aged 35-44 are jobs within the private sector, the legal profession, healthcare, education, and software development.
- Examining job outlooks for the ten positions, none have a lower than average job outlook. The growth rate for these jobs is projected to fall between 7% and 24% between 2016 and 2026.
- Most of the listed positions required a Bachelor's degree (7).

Table 1: Top Positions Requiring Some College or Higher for Individuals 35-44 Years Old Sorted in Descending Order by Number of Individuals Employed

Positions	Median Pay in 2016	Entry Level Education Needed	Job Outlook (2016-2026) (% projected growth rate)	Job Description
Managers, all other	\$100,790 per year	Most need a Bachelor's degree	9% (As fast as average)	Taken from administrative services: Administrative services managers plan, direct, and coordinate supportive services of an organization. Their specific responsibilities vary, but administrative service managers typically maintain facilities and supervise activities that include recordkeeping, mail distribution, and office upkeep.
Elementary and middle school teachers (using Elementary Teachers as for this)	\$55,490 per year	Bachelor's degree	7% (As fast as average)	Kindergarten and elementary school teachers instruct young students in basic subjects, such as math and reading, in order to prepare them for future schooling.
Registered nurses	\$68,450 per year \$32.91 per hour	Bachelor's degree	15% (Much faster than average)	Registered nurses (RNs) provide and coordinate patient care, educate patients and the public about various health conditions, and provide advice and emotional support to patients and their family members.
Cooks	\$22,850 per year \$10.99 per hour	Postsecondary nondegree award	6% (As fast as average)	Cooks prepare, season, and cook a wide range of foods, which may include soups, salads, entrees, and desserts.
Software Developers	\$102,280 per year \$49.17 per hour	Bachelor's degree	24% (Much faster than average)	Software developers are the creative minds behind computer programs. Some develop the applications that allow people to do specific tasks on a computer or another device. Others develop the underlying systems that run the devices or that control networks.
Nursing, psychiatric, and home health aides (Using nursing aides for the description)	\$26,590 per year \$12.78 per hour	Postsecondary nondegree award	11% (Faster than average)	Nursing assistants, sometimes called nursing aides, help provide basic care for patients in hospitals and residents of long-term care facilities, such as nursing homes.

Positions	Median Pay in 2016	Entry Level Education Needed	Job Outlook (2016-2026) (% projected growth rate)	Job Description
Accountants and auditors	\$68,150 per year \$32.76 per hour	Bachelor's degree	10% (Faster than average)	Accountants and auditors prepare and examine financial records. They ensure that financial records are accurate and that taxes are paid properly and on time. Accountants and auditors assess financial operations and work to help ensure that organizations run efficiently.
Financial Managers	\$121,750 per year \$58.54 per hour	Bachelor's degree	19% (Much faster than average)	Financial managers are responsible for the financial health of an organization. They produce financial reports, direct investment activities, and develop strategies and plans for the long-term financial goals of their organization.
Chief executives	\$103,950 per year \$49.97 per hour	Bachelor's degree	8% (As fast as average)	Top executives devise strategies and policies to ensure that an organization meets its goals. They plan, direct, and coordinate operational activities of companies and organizations.
Postsecondary Teachers	\$75,430 per year	Community Colleges: Master's degree Universities: Doctoral degree	15% (Much faster than average)	Postsecondary teachers instruct students in a wide variety of academic and technical subjects beyond the high school level. They may also conduct research and publish scholarly papers and books.
Lawyers	\$118,160 per year \$56.81 per hour	Doctoral or professional degree	9% (As fast as average)	Lawyers advise and represent individuals, businesses, and government agencies on legal issues and disputes.
Marketing and Sales Managers (Selected Advertising, Promotions, and Marketing Managers)	\$127,560 per year \$61.33 per hour	Bachelor's degree	9% (As fast as average)	Advertising, promotions, and marketing managers plan programs to generate interest in products or services. They work with art directors, sales agents, and financial staff members.

Source: Bureau of Labor Statistics, Current Population Survey (2016); descriptions and outlook came from the BLS Occupational Outlook Handbook

Next, the same information was gathered for individuals 45-54 years old.

- Most of the same positions are prominent with 45-54 year olds that were prominent with 35-44 year olds. Specifically, managers, elementary and middle school teachers, and registered nurses employed the largest number of people.
- Positions that appear within this table but that were absent in Table I for the younger population include: Wholesale and Manufacturing Sales Representatives, Education Administrators, and Secondary School Teachers.
- Wholesale and Manufacturing Sales Representatives had the lowest job outlook rate among the positions listed here with a rate of 6%

Table 2: Top Positions Requiring Some College or Higher for Individuals Aged 45-54 Sorted in Descending Order by Number of Individuals Employed

Positions	Median Pay in 2016	Entry Level Education Needed	Job Outlook (2016-2026) (% projected growth rate)	Job Description
Managers, all other	\$100,790 per year	Most need a Bachelor's degree	9% (As fast as average)	Taken from administrative services: Administrative services managers plan, direct, and coordinate supportive services of an organization. Their specific responsibilities vary, but administrative service managers typically maintain facilities and supervise activities that include recordkeeping, mail distribution, and office upkeep.
Elementary and middle school teachers (using Elementary Teachers as for this)	\$55,490 per year	Bachelor's degree	7% (As fast as average)	Kindergarten and elementary school teachers instruct young students in basic subjects, such as math and reading, in order to prepare them for future schooling.
Registered nurses	\$68,450 per year \$32.91 per hour	Bachelor's degree	15% (Much faster than average)	Registered nurses (RNs) provide and coordinate patient care, educate patients and the public about various health conditions, and provide advice and emotional support to patients and their family members.
Chief executives	\$103,950 per year \$49.97 per hour	Bachelor's degree	8% (As fast as average)	Top executives devise strategies and policies to ensure that an organization meets its goals. They plan, direct, and coordinate operational activities of companies and organizations.
Accountants and auditors	\$68,150 per year \$32.76 per hour	Bachelor's degree	10% (Faster than average)	Accountants and auditors prepare and examine financial records. They ensure that financial records are accurate and that taxes are paid properly and on time. Accountants and auditors assess financial operations and work to help ensure that organizations run efficiently.
Nursing, psychiatric, and home health aides (Using nursing aides for the description)	\$26,590 per year \$12.78 per hour	Postsecondary nondegree award	11% (Faster than average)	Nursing assistants, sometimes called nursing aides, help provide basic care for patients in hospitals and residents of long-term care facilities, such as nursing homes.
Cooks	\$22,850 per year \$10.99 per hour	Postsecondary nondegree award	6% (As fast as average)	Cooks prepare, season, and cook a wide range of foods, which may include soups, salads, entrees, and desserts.
Financial Managers	\$121,750 per year \$58.54 per hour	Bachelor's degree	19% (Much faster than average)	Financial managers are responsible for the financial health of an organization. They produce financial reports, direct investment activities, and develop strategies and plans for the long-term financial goals of their organization.

Positions	Median Pay in 2016	Entry Level Education Needed	Job Outlook (2016-2026) (% projected growth rate)	Job Description
Wholesale and Manufacturing Sales Representatives	\$60,530 per year \$29.10 per hour	If selling scientific and technical products, usually must have a Bachelor's degree.	6% (As fast as average)	Wholesale and manufacturing sales representatives sell goods for wholesalers or manufacturers to businesses, government agencies, and other organizations. They contact customers, explain the features of the products they are selling, negotiate prices, and answer any questions that their customers may have about the products.
Software Developers	\$102,280 per year \$49.17 per hour	Bachelor's degree	24% (Much faster than average)	Software developers are the creative minds behind computer programs. Some develop the applications that allow people to do specific tasks on a computer or another device. Others develop the underlying systems that run the devices or that control networks.
Education Administrators (Selected Postsecondary Education Administrators)	\$90,760 per year \$43.63 per hour	Master's degree	10% (Faster than average)	Postsecondary education administrators oversee student services, academics, and faculty research at colleges and universities. Their job duties vary depending on the area of the college they manage, such as admissions, student life, or the registrar's office.
Bookkeeping, Accounting, and Auditing Clerks	\$38,390 per year \$18.46 per hour	Some college, no degree	-1% (Little or no change)	Bookkeeping, accounting, and auditing clerks produce financial records for organizations. They record financial transactions, update statements, and check financial records for accuracy.
Secondary School Teachers	\$58,030 per year	Bachelor's degree	8% (As fast as average)	High school teachers help prepare students for life after graduation. They teach academic lessons and various skills that students will need to attend college and to enter the job market.

Source: Bureau of Labor Statistics, Current Population Survey (2016); descriptions and outlook came from the BLS Occupational Outlook Handbook

Top Employment Industries in the Inland Empire

Next, employment trends within Riverside and San Bernardino counties were considered for the population between 35 to 44 years old. Most notable within this list is the lack of private industrial occupations which are indicative of a weaker private sector within the Inland Empire area. Additionally, a report issued by the University of California, Riverside’s School of Business recently labelled the Inland Empire as having the worst annual private-sector average wage relative to the rest of the nation’s metropolitan areas. The top employment industries are similar between both age groups being examined. For those 35-44 years old, elementary and secondary schools, restaurants and other eateries, and medical and surgical hospitals are the top three employers, employing 52,084 people.

Table 3: Top Employment Industries within Riverside and San Bernardino Counties for Population Aged 35 to 44 Years Old Sorted in Ascending Order by Number Employed

NAICS 4-Digit Industries	# Employed
Elementary and Secondary Schools	23,469
Restaurants and Other Eating Places	16,561
General Medical and Surgical Hospitals	12,054*
Individual and Family Services	10,704
Executive, Legislative, and Other Government Support	9,290
Justice, Public Order, and Safety Activities	8,582
Employment Services	7,943
Building Equipment Contractors	6,375
Administration of Human Resource Programs	6,146*
Warehousing and Storage	5,287

Source: Quarterly Workforce Indicators (QWI), Census (2016 Q4)

For those 45-54 years old, elementary and secondary schools, individual and family services, and restaurants and other eateries are the top three employers, employing 50,815 people.

Table 4: Top Employment Industries within Riverside and San Bernardino Counties for Population Aged 45 to 54 Years Old Sorted in Ascending Order by Number Employed

NAICS 4-Digit Industries	# Employed
Elementary and Secondary Schools	25,106
Individual and Family Services	13,024
Restaurants and Other Eating Places	12,685
General Medical and Surgical Hospitals	10,901
Executive, Legislative, and Other Government Support	10,738
Justice, Public Order, and Safety Activities	9,485
Administration of Human Resource Programs	6,892*
Employment Services	6,878
Administration of Economic Program	6,681
Traveler Accommodation	5,334

Source: Quarterly Workforce Indicators (QWI), Census (2016 Q4)

Employment Projections

The Bureau of Labor Statistics' Occupational Outlook Handbook contains a list of the 20 fastest growing occupations in the nation for the next decade. Out of the positions listed thirteen require some form of education in addition to high school, six require a high school diploma, and one does not need any formal credential. The occupations with the top five fastest growth rates include Solar Photovoltaic Installers, Wind Turbine Service Technicians, Home Health Aides, Personal Care Aids, and Physician Assistants.

Table 5: 20 Fastest Growing Occupations Nationwide Sorted in Descending Order by the Projected Growth Rate from 2016 to 2026

Occupation	Growth Rate, 2016-26	2016 Median Pay	Entry Level Education Required
Solar photovoltaic installers	105%	\$39,240 per year	High school diploma or equivalent
Wind turbine service technicians	96%	\$52,260 per year	Postsecondary nondegree award
Home health aides	47%	\$22,600 per year	High school diploma or equivalent
Personal care aides	37%	\$21,920 per year	High school diploma or equivalent
Physician assistants	37%	\$101,480 per year	Master's degree
Nurse practitioners	36%	\$100,910 per year	Master's degree
Statisticians	33%	\$80,500 per year	Master's degree
Physical therapist assistants	31%	\$56,610 per year	Associate's degree
Software developers, applications	30%	\$100,080 per year	Bachelor's degree
Mathematicians	29%	\$105,810 per year	Master's degree
Bicycle Repairers	29%	\$27,630 per year	High school diploma or equivalent
Medical assistants	29%	\$31,540 per year	Postsecondary nondegree award
Physical therapist aides	29%	\$25,680 per year	High school diploma or equivalent
Occupational therapy assistants	29%	\$59,010 per year	Associate's degree
Information security analysts	28%	\$92,600 per year	Bachelor's degree
Genetic counselors	28%	\$74,120 per year	Master's degree
Operations research analysts	27%	\$79,200 per year	Bachelor's degree
Forest fire inspectors and prevention specialists	27%	\$36,230 per year	High school diploma or equivalent
Health specialties teachers, postsecondary	26%	\$99,360 per year	Master's degree for Community Colleges Doctoral degree for 4-year colleges universities
Derrick operators, oil and gas	26%	\$48,130 per year	No formal educational credential

NOTE: These outlook figures were last modified as of October 24, 2017.

In October of 2015, the Public Policy Institute of California issued a report entitled "Will California Run Out of College Graduates?" Within this report, the PPIC noted that the state is in danger of falling short of the college graduates required to meet economic demand within the state by 2030 by about 1.1 million graduates; this is assuming that the trends in the labor market do not change.

According to the PPIC, the occupations of personal care and service, food preparation and service as well as computer and mathematical science are projected to have the biggest increases in occupational share from 2013 to 2030.

Table 6: California Occupations with the Highest Change in Occupational Share (2013-30)

Occupation	Percentage Point Change in Demand of College-Educated Workers	Percentage Point Change in Occupational Share
Personal care and service	6.4	1.3
Food preparation and service	3.3	0.7
Computer and mathematical science	11.3	0.4
Business operations	14.3	0.3
Health care support	2.5	0.3
Health care practitioner and technical	1.2	0.3
Financial operations	10.0	0.1
Life, physical, and social science	3.0	0.1
Transportation and material moving	1.1	0.0

Source: Public Policy Institute of California, “Will College Run Out of College Graduates?” – Technical Appendices. The calculations are based on the 2012 ACS (three-year estimates) data. NOTE: occupational share is defined as the percent of state jobs that are in each occupational category; College-educated workers is defined as workers “holding at least a bachelor’s degree.”

When shifting the focus to San Bernardino County, occupations requiring a college education that have the largest projected amount of growth from 2015-2018 are primarily within the field of education and healthcare.

Table 7: Occupations Projected to Have the Largest Growth in San Bernardino County from 2015 to 2018 Sorted in Descending Order by Percent Growth

Occupational Title	Typical Entry Level	2015 Jobs	2018 Jobs	2015-18 Change	% Change 2015-18
Postsecondary Teachers	Doctoral or professional degree	5,524	6,258	734	13.3%
Nursing Assistants	Postsecondary nondegree award	5,177	5,827	650	12.6%
Medical Assistants	Postsecondary nondegree award	4,671	5,190	519	11.1%
Medical and Health Services Managers	Bachelor's degree	1,276	1,415	140	10.9%
Market Research Analysts and Marketing Specialists	Bachelor's degree	1,714	1,895	181	10.5%
Middle School Teachers, Except Special and Career/Technical Education	Bachelor's degree	2,489	2,745	256	10.3%
Education Administrators, Elementary and Secondary School	Master's degree	981	1,078	96	9.8%
Computer Systems Analysts	Bachelor's degree	1,257	1,379	122	9.7%
Secondary School Teachers, Except Special and Career/Technical Education	Bachelor's degree	4,093	4,488	395	9.6%

Source: Centers of Excellence – Labor Market data. NOTE: The occupations were limited to those who are projected to employ over 1,000 individuals in 2018. Additionally, positions requiring an entry-level of “no formal credentials” or a “high school diploma or equivalent” were omitted.

Crafton Hills College Declared Majors

For the last part of the analysis, program enrollments for Crafton students 35 to 54 years of age were examined. The sample was limited to those who were currently enrolled in courses in Fall 2017. Among those between 35-44 years old, the Associate of Science in Health Sciences is the most popular major with 14% of the students in this age group declaring it as their major. The other popular majors are the Associate of Science programs in Radiologic Technology (7%) and Business Administration (6%). Approximately 10% of students are undecided while 6% are undeclared.

Table 8: Most Popular Programs among Fall 2017 Currently Enrolled Students 35-44 Years Old

Academic Program	Number of Students (Total = 493)
Health Sciences (AS)	68
Undecided	47
Radiologic Technology (AS)	34
Business Administration (AS)	32
Undeclared	30
Respiratory Care (AS)	28
Business Administration (AS-T)	17
Psychology (AA-T)	15
Biology (AS)	13
Psychology (AA)	11
Emergency Medical Services (AS)	10
Sociology (AA)	9
American Sign Language (AA)	9
Mobile Intensive Care Nurse (C)	9
Programs with less than 9 students	161

Mirroring the results in the previous table, the Associate of Science in Health Sciences is the most popular major among students between the ages of 45-54 with 10% of the students in this age group declaring it as their major. The other popular majors are the Associate of Science in Business Administration (5%) and the Associate of Arts in Child Development (4%). Approximately 8% of students are undecided while 14% are undeclared.

Table 9: Most Popular Programs among Fall 2017 Currently Enrolled Students 45-54 Years Old

Academic Program	Number of Students (Total = 203)
Undeclared	29
Health Sciences (AS)	20
Undecided	17
Business Administration (AS)	10
Child Development (AA)	9
Radiologic Technology (AS)	8
Biology (AS)	8
Respiratory Care (AS)	5
Mobile Intensive Care Nurse (C)	5
Social Science (AA)	5
Sociology (AA)	4
Psychology (AA-T)	4
Art (AA)	4
Liberal Studies – Teacher Preparation (AA)	4
Psychology (AA)	4
Kinesiology (AA-T)	4
English (AA)	4
Business Administration (AS-T)	4
Programs with less than 4 students	55

Any questions regarding this report can be directed to the Office of Institutional Effectiveness, Research, and Planning at (909) 389-3331 or you may send an email to aslanian@craftonhills.edu: RRN 1820 Non-Traditional Age Student Fall 2017 Research Report – Final.docx