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# **Regional Economic Sector and Skills Gap Analysis: San Joaquin County**

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**San Joaquin County Workforce Development Board**

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# TABLE OF CONTENTS

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Summary .....	1
Summary of Findings .....	1
Economic Trends .....	4
Population and Employment Trends .....	4
Industry Clusters .....	13
Projected Job Openings .....	17
Labor Force Characteristics .....	19
The analysis of labor force characteristics includes details about the following groups: .....	19
The characteristics include: .....	19
Age Demographics .....	19
Unemployment .....	21
Educational Attainment .....	21
Underutilized Workforce .....	24
Conclusion .....	45
Appendix .....	46

## TABLES

Table 1— Annual Labor Force Trends, 2000-2015: San Joaquin .....	4
Table 2 – Total and Household Population trends: San Joaquin County, CCWC Region, and California .	5
Table 3 — Trends in Total Number of Jobs: 2000-2015: San Joaquin .....	6
Table 4 — Employment Trends and Projections by Sectors: San Joaquin County .....	7
Table 5 — Employment Projections for Industries Expected to Grow by 50 or More Jobs Between 2015 and 2025: San Joaquin County .....	8
Table 6 — Employment Projections by Industry Clusters: San Joaquin County .....	15
Table 7 — Industries within Various Clusters That Are Expected to Decline Significantly Between 2015 and 2025: San Joaquin County .....	15
Table 8 — Annual Opening To Number of Unemployed Who Satisfy Minimum Educational Requirements By Occupation: San Joaquin County .....	17
Table 9 — Summary of Overall Labor Force Trends For Select Demographic Categories: San Joaquin County .....	29
Table 10 – Population by race, Age, and Educational Attainment: San Joaquin County .....	30
Table 11 — Labor Force by Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over): San Joaquin County .....	31



Table 12 — Part-Time Labor Force by Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over): San Joaquin County .....	32
Table 13 — Unemployed Labor Force by Age, Race\Ethnicity, and Education (Persons 16 and Over): San Joaquin County.....	33
Table 14 — Unemployment Rates by Age, Race\Ethnicity, and Educational Attainment: San Joaquin County .....	34
Table 15 - Labor Force by Citizenship Status, Age and Educational Attainment (Persons 16 and Over): San Joaquin County.....	35
Table 16 - Unemployed Labor Force by Citizenship Status, Age and Educational Attainment (Persons 16 and Over): San Joaquin County.....	36
Table 17 - Unemployment Rates by Citizenship Status, Age and Educational Attainment (Persons 16 and Over): San Joaquin County .....	37
Table 18 — Labor Force by Age, Disability Status, and Educational Attainment (Persons 16 and over) .....	38
Table 19 — Unemployed Labor Force by Age, Disability Status, and Educational Attainment (Persons 16 and over): San Joaquin County .....	39
Table 20 — Labor Force by Disability Status, Age, and Educational Attainment: Unemployment Rates .....	40
Table 21 — Labor Force by Age, Veteran Status, and Educational Attainment (Persons 16 and over) San Joaquin County.....	41
Table 22 — Unemployed Labor Force By Age, Veteran Status, and Educational Attainment (Persons 16 and over) San Joaquin County .....	42
Table 23 — Labor Force by Veteran Status, Age, and Educational Attainment: Unemployment Rates San Joaquin County.....	43
Table 24 — Employed and Unemployed Labor Force by College Degree Status and Economic Sector .	44

## FIGURES

Figure 1 – Household Population Annual Growth Rates.....	6
Figure 2 – Labor Force Age Distribution (Persons 16 and Over).....	20
Figure 3 – Age Distribution by Race/Ethnicity (Persons 16 and Over).....	20
Figure 4 – Labor Force by Age and By Citizenship Status (16 and over).....	21
Figure 5 – Labor Force Educational Attainment by Citizenship Status (25 and over).....	22
Figure 6 – Educational Attainment by Race/Ethnicity.....	23
Figure 7 – Employment Status by Educational Attainment.....	23
Figure 8 – Educational Attainment for Disabled Workers and Veterans.....	24
Figure 9 – Annual Openings by Major Occupational Groups.....	25
Figure 10 - Number of Unemployed and Part-Time Labor Force by Major Occupational Group.....	26
Figure 11 – Part Time and Unemployment Workers By Occupational Class Compared To Annual Openings (Persons 25 and Over): Only Persons Whose Educational Attainment Commensurate With Opening Position: San Joaquin County.....	27
Figure 12 – Part Time and Unemployed Workers by Educational Attainment and Occupational Class (Persons 25 and Over): San Joaquin County.....	28



## APPENDIX TABLES

Appendix Table 1- Employment Projections By Industry Clusters: Agriculture: Distribution San Joaquin County.....	46
Appendix Table 2- Employment Projections By Industry Clusters: Agriculture: Processing San Joaquin County.....	48
Appendix Table 3 - Employment Projections By Industry Clusters: Agriculture: Production San Joaquin County.....	49
Appendix Table 4 - Employment Projections By Industry Clusters: Agriculture: Support San Joaquin County.....	49
Appendix Table 5 - Employment Projections By Industry Clusters: Energy.....	52
Appendix Table 6 - Employment Projections By Industry Clusters: Health and Wellness: Delivery San Joaquin County.....	<b>Error! Bookmark not defined.</b>
Appendix Table 7 - Employment Projections By Industry Clusters: Health and Wellness: All Others San Joaquin County.....	56
Appendix Table 8 - Employment Projections By Industry Clusters: Logistics San Joaquin County.....	57
Appendix Table 9 - Employment Projections By Industry Clusters: Manufacturing: All Others San Joaquin County.....	58
Appendix Table 10 - Employment Projections By Industry Clusters: Water Flow Technologies San Joaquin County.....	61
Appendix Table 11 - Employment Projections By Industry Clusters: Heavy Construction San Joaquin County.....	61
Appendix Table 12 - Employment Projections By Industry Clusters: Accommodations and Food Services, and Retail.....	62
Appendix Table 13- Population By Age, Race\Ethnicity, and Educational Attainment San Joaquin County .....	63
Appendix Table 14 - Employed Labor Force By Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over) San Joaquin County .....	64
Appendix Table 15- Full-Time Employed Labor Force By Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over) San Joaquin County .....	65
Appendix Table 16- Labor Force By Age, Gender, and Educational Attainment (Persons 16 and Over) San Joaquin County.....	66
Appendix Table 17- Part-Time Employed Labor Force By Age, Gender, and Educational Attainment (Persons 16 and Over) San Joaquin County .....	67
Appendix Table 18- Unemployed Labor Force By Age, Gender, and Educational Attainment (Persons 16 and Over) San Joaquin County .....	68
Appendix Table 19- Unemployment Rates By Age, Gender, and Educational Attainment San Joaquin County.....	69
Appendix Table 20 - Part-Time Employed Labor Force By Broad Occupation Categories, Educational Attainment and Management Status San Joaquin County .....	70
Appendix Table 21 - Unemployed Labor Force By Broad Occupation Categories, Educational Attainment and Management Status (excluding Long-Term Unemployed) San Joaquin County.....	73
Appendix Table 22- Long-Term Unemployed Labor Force By Educational Attainment .....	76
Appendix Table 23 - Occupational Projections By Education and Training Requirement: New Jobs (Jobs Expected to Grow By At Least 50) San Joaquin County .....	77
Appendix Table 24 - Unemployed Labor Force-to-Job Openings Skills Match San Joaquin County .....	83
Appendix Table 25- Part-Time Labor Force-to-Job Openings Skills Match San Joaquin County .....	87



# SUMMARY

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Prepared under the auspices of the Central California Workforce Collaborative (CCWC), this report provides trend information and projections for jobs in San Joaquin County by industry sector, industry clusters, and occupational openings. The analysis also provides a description of key labor force characteristics in the County and discusses the match between education and occupational background for the unemployed and part time workforce in relation to projected job openings.

## SUMMARY OF FINDINGS

### **Job Growth**

- The County unemployment rate has declined to 8.8% in 2015, down from the peak of 16.5% in 2010, but still well above the low point before the recession of 7.4% in 2006.
- Before the recession, total jobs in the County peaked at 224,765 in 2007 and have not yet reached that level again. Jobs are estimated to total 224,482 (annual average) in 2015.
- Health Care is projected to see the highest growth in jobs between 2015 and 2025 (7,267 new jobs), followed by Retail (4,465 new jobs) Admin Support (3,074 new jobs), and Food Service (3,057 new jobs).
- San Joaquin County is also expected to see very strong growth in Wholesale (3,724 new jobs), Warehousing (1,231 new jobs) and Transportation industries (2,130 new jobs).
- Construction continues rebounding from the recession but at a slower rate. It is projected to grow by 961 jobs between 2015 and 2025, after having recovered more than 2,200 jobs over the past five years.
- Professional, scientific and technical services and manufacturing are projected to see growth as well, at 800 and 685 new jobs, respectively.
- The Agriculture and Health and Wellness clusters are projected to have the highest job growth over the next ten years, at 7,500 and 7,300 new jobs, respectively.
- Within the Agriculture cluster, much of the growth is in distribution (5,360 new jobs) and support services, which includes farm labor supplied through temporary help agencies. The food processing sector shows very mixed growth trends with only 194 net jobs gain over the ten years. Growing industries include all other miscellaneous food manufacturing (NAICS 311999), meat processing from carcasses (NAICS 311612), wet corn milling (NAICS 311221), and wineries (NAICS 312130). Other processing industries such as roasted nuts (NAICS 311911), breakfast cereal manufacturing (NAICS 311230), cheese manufacturing (NAICS 311513) are projected to decline.



- In the Health cluster, nearly 55 percent of the jobs are in medical treatment facilities including doctor's offices, hospitals and a variety of types of clinics. The remainder is in medical supplies and support services, with over 3,000 new jobs focused on care for the elderly and disabled.
- The projections of job openings are heavily concentrated in transportation and materials handling (1,363 annual openings) and also food services and sales (retail) (2,049 combined annual openings). Other high demand occupations include health care (699 annual openings) and office support (763 annual openings).
- For each of these occupational categories, the report also indicates the number of unemployed and part time workers in the County that meet the minimum educational requirements for the projected job openings. These workers may need more specialized training in order to transition into these jobs.

#### **LABOR FORCE CHARACTERISTICS**

- The labor force in San Joaquin County is generally concentrated in the younger age groups, with 16 percent in the 16-24 age group, and 22 percent of the 25-34 age group (Figure 2). The prime working age group of 35-54 has 44 percent of the workforce, which is less concentrated on a year to year basis than the younger age groups. Workers over 55 constitute about 17 percent of the workforce and a number of employers report that impending retirements are a significant issue for them in terms of anticipated openings in the future.
- Non-citizen workers constitute 17 percent of the workforce in San Joaquin County, though the rate varies with age. At 20 percent of the millennial (25 to 34) and prime working age (35 to 54) labor force, non-citizens are somewhat more concentrated in these two sub-populations relative to their overall concentration level, i.e. 17 percent. In contrast, non-citizens comprise only 12 percent of the labor force between 16 and 24.
- The San Joaquin County workforce exhibits higher levels of educational attainment compared to the rest of the San Joaquin Valley region. About 82 percent of the workers 25 years and older have received at least a high school diploma or equivalent and 31.6 percent have a college degree.
- Non-citizens 25 and over exhibit high rates of less than high school attainment level at 53 percent. Almost 23.5 percent of non-citizens in the labor force have earned a high school diploma or equivalent, which is only two percentage points lower than the rate for citizens (i.e. 25.5 percent). This accounts in part for the differences in educational attainment between Latino workers and other workers in the labor force, as the non-citizen group is 77 percent Latino. Whites and Others are almost three times more likely than Latinos to have earned a college degree: 12 percent of the Latinos in the labor force have earned a college degree versus 36 percent for Whites and 32 percent for other races.
- Veterans in San Joaquin County tend to have high levels of overall educational attainment, with six percent not achieving a high school diploma. For the workforce as a whole, almost 18



percent do not have a high school diploma or equivalent degree. Among disabled workers, however, nearly 20 percent do not have a high school diploma.

## CONCLUSION

At 1.4 percent a year, jobs in San Joaquin County is expected to grow modestly from now to 2025, although analysts project a number of sectors (Health, Logistics, and Administrative Support) to exceed this overall annual growth rate. However, qualified workers are in short supply for certain key job categories. Based on the analysis presented in this report and discussions with key employers and workforce training organizations, the following can be identified as potential priorities for additional training efforts.

- Medical Technicians
- Electricians
- Maintenance Mechanics
- Ability to use computer operated processing controls and instruments (and related English competency)
- Workers with supervisory and management skills
- Business skills



# ECONOMIC TRENDS

## POPULATION AND EMPLOYMENT TRENDS

The County unemployment rate has declined to 8.8 percent in 2015, down from the peak of 16.5 percent in 2010, but still well above the low point before the recession of 7.4 percent in 2006 (Table 1). While employment levels have been increasing since 2010, the size of the labor force has oscillated somewhat though trending upward, from 311,200 in 2010 to 311,300 in 2012, slightly down to 311,100 in 2014, and finally to 311,575 in 2015.

**Table 1— Annual Labor Force Trends, 2000-2015: San Joaquin**

Period	Labor Force Trends	Employed Labor Force	Unemployment Rate
08-15 Ann. Growth Rate	0.9%	1.2%	13.4%
00-08 Ann. Growth Rate	1.5%	1.1%	8.5%
2015	311,575	284,192	8.8%
2014	311,100	278,000	10.6%
2013	311,300	272,800	12.4%
2012	311,300	266,400	14.4%
2011	311,000	260,600	16.2%
2010	311,200	259,800	16.5%
2009	297,800	253,300	14.9%
2008	292,800	262,300	10.4%
2007	288,600	265,300	8.1%
2006	283,600	262,600	7.4%
2005	283,600	261,300	7.9%
2004	281,400	256,900	8.7%
2003	278,800	253,400	9.1%
2002	274,100	250,000	8.8%
2001	266,000	246,200	7.5%
2000	259,200	241,100	7.0%

Source: Applied Development Economics, based on CA EDD LMID. Note: Unemployment rates for 2000-2008 (8.5%) and 2008-2015 (13.4%) in the table above are annual averages, not annual growth rate.

The household population has increased by 0.98 percent annually between 2010 and 2015 – a somewhat faster rate than the annual growth rate for the multi-county CCWC region as a whole (Table 2). Household population growth in the San Joaquin Valley exceeded statewide growth rates between 2011 and 2013, but has slowed in the past two years. As shown in Figure 1, San Joaquin County is projected to grow slightly faster than the CCWC region as a whole over the next five years (2015-2020), which will have implications for some employment sectors, as discussed below.



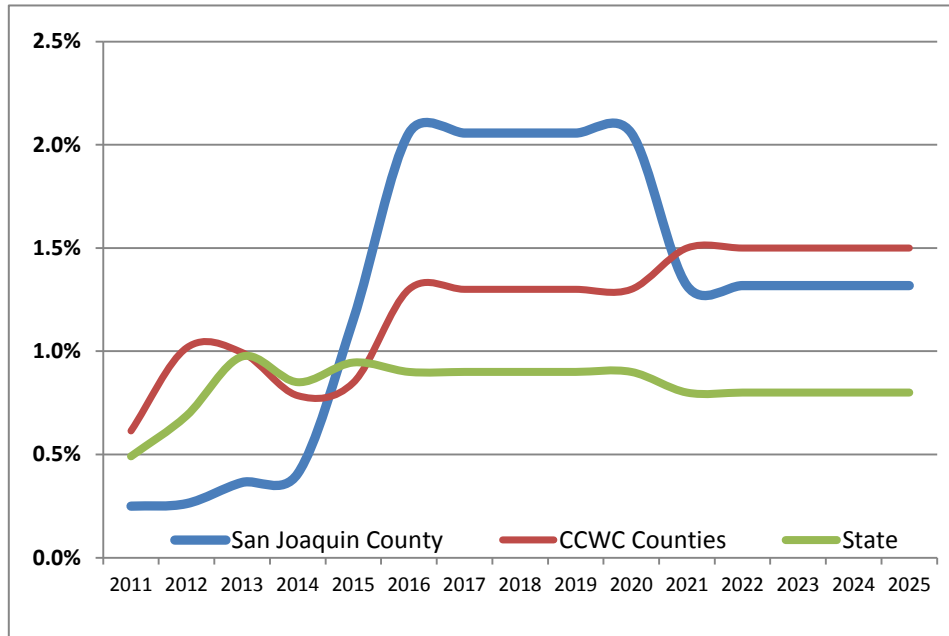
**Table 2 – Total and Household Population trends: San Joaquin County, CCWC Region, and California**

Year	Household Population					
	San Joaquin County	Growth Rate	CCWC Counties	Growth Rate	State ('000)	Growth Rate
2010	670,952	---	3,888,941	---	36,412	---
2011	675,032	0.61%	3,912,829	0.60%	36,591	0.50%
2012	682,697	1.14%	3,952,595	1.00%	36,843	0.70%
2013	688,947	0.92%	3,991,868	1.00%	37,202	1.00%
2014	694,533	0.81%	4,023,198	0.80%	37,518	0.90%
2015	704,625	1.45%	4,057,322	0.80%	37,873	0.90%
10-15	33,673	0.98%	168,381	0.90%	1,461	0.80%

Year	Total Population					
	San Joaquin County	Annual Growth Rates	CCWC Counties	Growth Rate	State ('000)	Growth Rate
2010	685,306	---	4,004,407	---	37,254	---
2011	689,160	0.56%	4,025,282	0.50%	37,428	0.50%
2012	696,328	1.04%	4,058,833	0.80%	37,681	0.70%
2013	701,620	0.76%	4,094,785	0.90%	38,031	0.90%
2014	708,678	1.01%	4,129,749	0.90%	38,357	0.90%
2015	719,511	1.53%	4,165,560	0.90%	38,715	0.90%
10-15	34,205	0.98%	161,153	0.80%	1,461	0.80%



**Figure 1 – Household Population Annual Growth Rates**



Before the recession, total jobs in the County peaked at 224,765 in 2007 and has not yet reached that level as of 2015. The annual average number of jobs in 2015 is estimated at 224,482 (Table 3).

Through 2008, total jobs in the County were growing at a 1.2 annual percentage rate, while since 2008, the number of jobs have grown at a tepid 0.2 percent per year.

**Table 3 – Trends in Total Number of Jobs: 2000-2015: San Joaquin**

Period	Total Employment
08-15 Ann. Growth Rate	0.2%
00-08 Ann. Growth Rate	1.2%
2015	224,482
2014	217,755
2013	211,871
2012	206,249
2011	201,575
2010	201,835
2009	208,889
2008	220,827
2007	224,765
2006	221,739
2005	218,216
2004	215,352
2003	211,582
2002	206,871
2001	204,504
2000	200,996

Source: Applied Development Economics, based on CA EDD LMID



Farm employment stagnated at roughly 15,800 between 2010 and 2015, and is even projected to remain around that level in 2025 (Table 4). Despite these overall trends, some job growth is projected in farm support (NAICS 115), especially within machine crop harvesting (NAICS 115112) (Table 5). Support activities for forestry are expected to grow annually by six percent between 2015 and 2025. A number of factors affect farm employment including availability of water and continued mechanization of farming operations. In addition, employers interviewed for this study indicated that the new state minimum wage law will affect employment opportunities in both farming and food processing and related industries. In addition, current efforts in the State Assembly to limit the agricultural work day are seen as a threat to employment growth.

Manufacturing industries in San Joaquin County are mainly in food processing. Manufacturing jobs increased by slightly-under one percent a year between 2010 and 2015, for a net increase of over 800 jobs. This sector is expected to continue to increase over the next ten years but at a slower rate of 0.4 percent per year, though this would result in over 600 new manufacturing jobs. Within manufacturing, food processing (NAICS 311-312) is expected to remain at the same level in 2025 as was the case in 2015, or 6,300 food processing jobs. While overall food processing is projected to remain in place in the coming years, there are specific industries that are slated to grow. Food manufacturing industries such as all other miscellaneous food manufacturing (NAICS 311999), meat processing from carcasses (NAICS 311612), wet corn milling (NAICS 311221), and wineries (NAICS 312130) are expected to each increase by at least 200 new jobs between 2015 and 2025 (Table 5).

A number of non-food processing manufacturing industries are also projected to produce new jobs. Other concrete product manufacturing (NAICS 327390) and all other plastics products manufacturing (NAICS 326199) are each expected to grow by at least 300 new jobs between 2015 and 2025. Fabricated structural metal manufacturing (NAICS 332312) and urethane and other foam product manufacturing (NAICS 326199) are also expected to grow respectively by 100 new jobs.

The construction industry continued to grow coming out of the recession over the past five years, and is projected to grow over the next ten years as well (Table 4). Residential remodeling (NAICS 236118) and new single-family housing construction (NAICS 236115) are expected to grow during this period (see Table 5), which is consistent with expected population growth for the county over the next ten years as indicated above in Figure 1.

**Table 4 — Employment Trends and Projections by Sectors: San Joaquin County**

		Employment			Change	Ann. Growth Rate	
		2010	2015	2025p	15-25	10-15	15-25
	<b>Total</b>	<b>208,103</b>	<b>229,890</b>	<b>263,235</b>	<b>33,344</b>	<b>2.0%</b>	<b>1.4%</b>
11	Agriculture	15,869	15,846	15,788	-58	0.0%	0.0%
21	Mining	105	76	51	-24	-6.3%	-3.8%
22	Utilities	1,144	1,390	1,508	118	4.0%	0.8%
23	Construction	7,937	10,299	11,259	961	5.3%	0.9%
31-33	Manufacturing	17,917	18,744	19,429	685	0.9%	0.4%
42	Wholesale	10,006	11,292	15,016	3,724	2.4%	2.9%



		Employment			Change	Ann. Growth Rate	
		2010	2015	2025p	15-25	10-15	15-25
44-45	Retail	23,626	26,006	30,471	4,465	1.9%	1.6%
48	Transportation	7,203	9,199	11,329	2,130	5.0%	2.1%
49	Warehousing	6,268	6,612	7,843	1,231	1.1%	1.7%
51	Information	2,090	2,194	2,279	85	1.0%	0.4%
52	Finance and Insurance	5,515	5,432	5,861	428	-0.3%	0.8%
53	Real Estate and Leasing	2,668	2,774	2,979	204	0.8%	0.7%
54	Professional, Scientific, Technical	4,242	4,640	5,441	801	1.8%	1.6%
55	Mgt.of Companies	1,577	1,704	1,612	-92	1.6%	-0.6%
561	Admin Support	9,111	11,334	14,408	3,074	4.5%	2.4%
562	Waste Mgt.	473	544	692	148	2.8%	2.4%
61	Education	22,539	23,426	25,582	2,155	0.8%	0.9%
62	Health	28,603	32,558	39,824	7,267	2.6%	2.0%
71	Arts, Recreation, and Entertainment	1,865	2,584	2,811	227	6.7%	0.8%
721	Accommodations	878	1,068	1,199	131	4.0%	1.2%
722	Food and Drinking Services	13,456	16,701	19,758	3,057	4.4%	1.7%
81	Other Services	6,871	7,485	8,829	1,344	1.7%	1.7%
92	Public Admin (excpt. Military)	16,757	16,163	17,506	1,343	-0.7%	0.8%
98	Military	1,143	1,202	1,055	-146	1.0%	-1.3%
99	Misc.	240	617	705	88	20.8%	1.3%

Source: Applied Development Economics, based on EMSI Q4 QCEW and Non-QCEW Industry Employment Trends.

(Note: 2025p = projections)

The Health Services sector is projected to see strong employment growth over the next ten years. This is a consistent finding throughout the San Joaquin Valley as well as nationally and reflects both demographic trends with the aging Baby Boomer population as well as industry trends to institute managed care with more outpatient and home health care. Employment in Health Services is projected to grow to 39,824 in 2025 from 23,426 in 2015, for an annual rate of growth of 2.0 percent (Table 4). In an effort to accurately characterize the state of employment in the sector in San Joaquin County, employment in Health Services includes employed persons in the public sector, who for purposes of analysis were moved out of NAICS 92 (Public Administration) and into NAICS 62 (Health Services). Another population based trend is the increase in retail and food services jobs. Both these sectors have been recovering from the recession over the past five years, and are projected to see more moderate growth over the next ten years. Table 5 provides more detail on projected fast growing industries in San Joaquin County.

**Table 5 — Employment Projections for Industries Expected to Grow by 50 or More Jobs Between 2015 and 2025: San Joaquin County**

		Employment		Change	CAGR	
NAICS	Industry	2015	2025p	'15-'25	'15-'25	RANK
ALL INDUSTRIES EXHIBITING 50+ EMP. GROWTH		155,078	197,060	41,982	2.4%	
115112	Soil Preparation, Planting, and Cultivating	465	586	120	2.3%	83
115115	Farm Labor Contractors and Crew Leaders	4,352	4,407	55	0.1%	140



		Employment		Change	CAGR	
NAICS	Industry	2015	2025p	'15-'25	'15-'25	RANK
115116	Farm Management Services	324	404	80	2.2%	110
115310	Support Activities for Forestry	79	142	64	6.1%	128
	<b>11 Agric.</b>	<b>5,220</b>	<b>5,539</b>	<b>320</b>	<b>0.6%</b>	
221310	Water Supply and Irrigation Systems	204	311	107	4.3%	93
	<b>22 Utilities</b>	<b>204</b>	<b>311</b>	<b>107</b>	<b>4.3%</b>	
236115	New Single-Family Housing Construction (except For-Sale Builders)	757	905	148	1.8%	71
236118	Residential Remodelers	399	699	300	5.8%	34
236220	Commercial and Institutional Building Construction	819	985	166	1.9%	62
237990	Other Heavy and Civil Engineering Construction	170	266	97	4.6%	99
238220	Plumbing, Heating, and Air-Conditioning Contractors	1,159	1,376	217	1.7%	47
238290	Other Building Equipment Contractors	186	270	84	3.8%	108
238310	Drywall and Insulation Contractors	997	1,538	540	4.4%	20
238390	Other Building Finishing Contractors	102	212	110	7.6%	90
238910	Site Preparation Contractors	285	396	110	3.3%	89
238990	All Other Specialty Trade Contractors	710	1,055	345	4.0%	28
	<b>23 Const.</b>	<b>5,584</b>	<b>7,702</b>	<b>2,118</b>	<b>3.3%</b>	
311221	Wet Corn Milling	425	675	250	4.7%	40
311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing	127	213	85	5.3%	107
311612	Meat Processed from Carcasses	1,018	1,274	256	2.3%	39
311999	All Other Miscellaneous Food Manufacturing	708	1,097	389	4.5%	25
312111	Soft Drink Manufacturing	169	273	104	4.9%	94
312130	Wineries	1,714	1,939	225	1.2%	44
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing	283	407	124	3.7%	81
326199	All Other Plastics Product Manufacturing	438	770	332	5.8%	30
326299	All Other Rubber Product Manufacturing	256	333	77	2.7%	114
327213	Glass Container Manufacturing	333	388	55	1.5%	142
327390	Other Concrete Product Manufacturing	473	848	374	6.0%	26
332312	Fabricated Structural Metal Manufacturing	751	880	129	1.6%	78
332323	Ornamental and Architectural Metal Work Manufacturing	73	123	50	5.4%	147
336212	Truck Trailer Manufacturing	225	324	99	3.7%	98
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	308	363	56	1.7%	137
337110	Wood Kitchen Cabinet and Countertop Manufacturing	592	725	133	2.0%	77
	<b>31-33 Man.</b>	<b>7,894</b>	<b>10,632</b>	<b>2,738</b>	<b>3.0%</b>	
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	355	474	119	2.9%	85
423210	Furniture Merchant Wholesalers	62	117	55	6.6%	141
423220	Home Furnishing Merchant Wholesalers	235	455	220	6.8%	45



		Employment		Change	CAGR	
NAICS	Industry	2015	2025p	'15-'25	'15-'25	RANK
423510	Metal Service Centers and Other Metal Merchant Wholesalers	357	483	126	3.1%	80
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	301	518	217	5.6%	46
423930	Recyclable Material Merchant Wholesalers	272	366	94	3.0%	100
424130	Industrial and Personal Service Paper Merchant Wholesalers	252	440	188	5.7%	55
424210	Drugs and Druggists' Sundries Merchant Wholesalers	117	183	66	4.6%	125
424410	General Line Grocery Merchant Wholesalers	1,557	2,360	803	4.2%	14
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	421	489	68	1.5%	121
424450	Confectionery Merchant Wholesalers	199	288	89	3.8%	103
424480	Fresh Fruit and Vegetable Merchant Wholesalers	724	883	160	2.0%	65
424490	Other Grocery and Related Products Merchant Wholesalers	625	841	216	3.0%	48
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	160	227	67	3.6%	123
424820	Wine and Distilled Alcoholic Beverage Merchant Wholesalers	347	618	272	6.0%	36
424910	Farm Supplies Merchant Wholesalers	731	1,040	309	3.6%	33
424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers	181	244	63	3.0%	129
425120	Wholesale Trade Agents and Brokers	1,144	1,992	848	5.7%	13
	<b>42 Wholesale</b>	<b>8,038</b>	<b>12,018</b>	<b>3,980</b>	<b>4.1%</b>	
441120	Used Car Dealers	262	504	242	6.8%	41
441210	Recreational Vehicle Dealers	212	272	59	2.5%	133
441310	Automotive Parts and Accessories Stores	779	900	120	1.4%	84
442299	All Other Home Furnishings Stores	156	225	69	3.7%	120
443142	Electronics Stores	563	664	101	1.7%	96
444110	Home Centers	1,660	2,409	749	3.8%	18
444190	Other Building Material Dealers	357	427	69	1.8%	119
445110	Supermarkets and Other Grocery (except Convenience) Stores	3,823	3,998	175	0.4%	59
445292	Confectionery and Nut Stores	75	132	57	5.8%	136
446110	Pharmacies and Drug Stores	1,312	1,520	208	1.5%	50
446120	Cosmetics, Beauty Supplies, and Perfume Stores	163	239	76	3.9%	115
447110	Gasoline Stations with Convenience Stores	1,051	1,208	158	1.4%	68
448120	Women's Clothing Stores	295	423	128	3.7%	79
448130	Children's and Infants' Clothing Stores	104	190	85	6.2%	106
448140	Family Clothing Stores	635	727	92	1.4%	101
451110	Sporting Goods Stores	653	1,082	429	5.2%	23
451130	Sewing, Needlework, and Piece Goods Stores	111	163	52	3.9%	143
452112	Discount Department Stores	2,909	3,839	930	2.8%	11



		Employment		Change	CAGR	
NAICS	Industry	2015	2025p	'15-'25	'15-'25	RANK
452910	Warehouse Clubs and Supercenters	2,106	3,101	995	3.9%	8
452990	All Other General Merchandise Stores	829	1,090	261	2.8%	38
453210	Office Supplies and Stationery Stores	390	445	55	1.3%	139
453910	Pet and Pet Supplies Stores	246	321	74	2.7%	116
	<b>44-45 Retail</b>	<b>18,691</b>	<b>23,878</b>	<b>5,186</b>	<b>2.5%</b>	
482110	Rail transportation	539	651	113	1.9%	88
484110	General Freight Trucking, Local	1,278	1,378	100	0.8%	97
484121	General Freight Trucking, Long-Distance, Truckload	2,607	3,604	997	3.3%	7
484220	Specialized Freight (except Used Goods) Trucking, Local	1,490	1,848	358	2.2%	27
484230	Specialized Freight (except Used Goods) Trucking, Long-Distance	415	623	207	4.1%	51
488210	Support Activities for Rail Transportation	254	333	78	2.7%	112
488410	Motor Vehicle Towing	243	352	109	3.8%	91
488510	Freight Transportation Arrangement	246	392	146	4.8%	73
488999	All Other Support Activities for Transportation	154	217	64	3.5%	127
	<b>48 Trans.</b>	<b>7,225</b>	<b>9,398</b>	<b>2,173</b>	<b>2.7%</b>	
493110	General Warehousing and Storage	4,855	6,185	1,330	2.5%	5
493190	Other Warehousing and Storage	81	145	64	6.0%	126
	<b>49 Warehousing</b>	<b>4,936</b>	<b>6,330</b>	<b>1,394</b>	<b>2.5%</b>	
511120	Periodical Publishers	105	291	187	10.8%	56
517110	Wired Telecommunications Carriers	646	980	333	4.2%	29
	<b>51 Information</b>	<b>751</b>	<b>1,271</b>	<b>520</b>	<b>5.4%</b>	
522110	Commercial Banking	1,173	1,371	198	1.6%	54
522130	Credit Unions	239	328	89	3.2%	102
524114	Direct Health and Medical Insurance Carriers	1,447	1,866	419	2.6%	24
	<b>52 Fin. And Insr.</b>	<b>2,859</b>	<b>3,565</b>	<b>706</b>	<b>2.2%</b>	
531110	Lessors of Residential Buildings and Dwellings	490	549	60	1.2%	132
531311	Residential Property Managers	551	695	144	2.4%	75
532299	All Other Consumer Goods Rental	143	218	74	4.3%	117
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	103	171	68	5.2%	122
	<b>53 R.E. and Leasing</b>	<b>1,287</b>	<b>1,632</b>	<b>346</b>	<b>2.4%</b>	
541219	Other Accounting Services	347	424	77	2.0%	113
541490	Other Specialized Design Services	75	138	63	6.3%	130
541511	Custom Computer Programming Services	325	527	202	5.0%	52
541512	Computer Systems Design Services	126	177	51	3.4%	145
541611	Administrative Management and General Management Consulting Services	123	182	59	4.0%	135
541614	Process, Physical Distribution, and Logistics Consulting Services	169	313	144	6.4%	74



		Employment		Change	CAGR	
NAICS	Industry	2015	2025p	'15-'25	'15-'25	RANK
541620	Environmental Consulting Services	190	310	120	5.0%	82
541712	Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)	295	456	160	4.4%	64
541940	Veterinary Services	491	635	143	2.6%	76
	<b>54 Prof.,Sci., Tech.</b>	<b>2,142</b>	<b>3,161</b>	<b>1,019</b>	<b>4.0%</b>	
561311	Employment Placement Agencies	772	1,275	503	5.1%	22
561320	Temporary Help Services	5,119	7,027	1,908	3.2%	<b>3</b>
561440	Collection Agencies	498	577	80	1.5%	111
561499	All Other Business Support Services	64	115	51	6.0%	144
561612	Security Guards and Patrol Services	818	1,046	228	2.5%	43
561720	Janitorial Services	1,101	1,669	568	4.3%	19
561790	Other Services to Buildings and Dwellings	151	264	113	5.8%	87
561920	Convention and Trade Show Organizers	281	481	200	5.5%	53
561990	All Other Support Services	220	393	173	6.0%	60
562111	Solid Waste Collection	252	403	150	4.8%	70
	<b>56 Admin. Support, Waste Mgt.</b>	<b>9,275</b>	<b>13,250</b>	<b>3,975</b>	<b>3.6%</b>	
611110	Elementary and Secondary Schools	16,794	17,807	1,012	0.6%	<b>6</b>
611310	Colleges, Univ., and Professional Schools	5,389	6,178	789	1.4%	15
611620	Sports and Recreation Instruction	145	207	62	3.6%	131
611691	Exam Preparation and Tutoring	466	796	330	5.5%	31
	<b>61 Education</b>	<b>22,794</b>	<b>24,987</b>	<b>2,193</b>	<b>0.9%</b>	
621111	Offices of Physicians (except Mental Health Specialists)	3,319	3,855	536	1.5%	21
621210	Offices of Dentists	1,691	2,011	320	1.7%	32
621330	Offices of Mental Health Practitioners (except Physicians)	102	153	51	4.1%	146
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists	368	526	158	3.6%	66
621399	Offices of All Other Miscellaneous Health Practitioners	104	154	50	4.0%	148
621420	Outpatient Mental Health and Substance Abuse Centers	225	386	162	5.6%	63
621491	HMO Medical Centers	1,671	2,630	959	4.6%	<b>9</b>
621492	Kidney Dialysis Centers	305	414	109	3.1%	92
621610	Home Health Care Services	2,276	3,770	1,494	5.2%	<b>4</b>
621910	Ambulance Services	404	618	214	4.3%	49
622210	Psychiatric and Substance Abuse Hospitals	109	211	102	6.9%	95
622310	Specialty (except Psychiatric and Substance Abuse) Hospitals	69	149	80	8.0%	109
623110	Nursing Care Facilities	3,195	3,970	775	2.2%	16
623311	Continuing Care Retirement Communities	558	796	238	3.6%	42
624120	Services for Elderly, Persons w\ Disabilities	6,085	9,321	3,236	4.4%	<b>1</b>
	<b>62 Health</b>	<b>20,480</b>	<b>28,965</b>	<b>8,484</b>	<b>3.5%</b>	
713210	Casinos (except Casino Hotels)	209	295	86	3.5%	105
713290	Other Gambling Industries	251	367	117	3.9%	86



NAICS	Industry	Employment		Change	CAGR	RANK
		2015	2025p	'15-'25	'15-'25	
713940	Fitness and Recreational Sports Centers	884	951	67	0.7%	124
	<b>71 Arts, Enter., Rec.</b>	<b>1,343</b>	<b>1,613</b>	<b>270</b>	<b>1.8%</b>	
721110	Hotels (except Casino Hotels) and Motels	945	1,131	185	1.8%	57
722511	Full-Service Restaurants	6,081	7,029	948	1.5%	10
722513	Limited-Service Restaurants	8,423	10,439	2,016	2.2%	2
722515	Snack and Nonalcoholic Beverage Bars	1,266	1,560	294	2.1%	35
	<b>72 Accomodations and Food</b>	<b>16,715</b>	<b>20,159</b>	<b>3,444</b>	<b>1.9%</b>	
811111	General Automotive Repair	695	961	266	3.3%	37
811121	Automotive Body, Paint, and Interior Repair and Maintenance	441	514	73	1.5%	118
811192	Car Washes	569	741	171	2.7%	61
811198	All Other Automotive Repair and Maintenance	75	131	55	5.7%	138
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	541	600	59	1.0%	134
812113	Nail Salons	286	471	185	5.1%	58
812331	Linen Supply	335	493	158	3.9%	67
813110	Religious Organizations	1,865	2,013	148	0.8%	72
813410	Civic and Social Organizations	415	572	158	3.3%	69
	<b>81 Other Svcs.</b>	<b>5,223</b>	<b>6,496</b>	<b>1,273</b>	<b>2.2%</b>	
902999	State Government, Excluding Education and Hospitals	3,908	4,796	888	2.1%	12
903999	Local Government, Excluding Education and Hospitals	9,893	10,652	759	0.7%	17
	<b>90 Public</b>	<b>13,801</b>	<b>15,449</b>	<b>1,647</b>	<b>1.1%</b>	
999999	Unclassified Industry	617	705	88	1.3%	104
	<b>99 Unclass.</b>	<b>617</b>	<b>705</b>	<b>88</b>	<b>1.3%</b>	

## INDUSTRY CLUSTERS

The San Joaquin Valley has defined a number of regional industry clusters that are significant components of the regional economic base, which are listed in Table 6 below. Industry clusters represent traded sectors in the regional economy and typically are the source of most of the income and wealth for the region as well as the areas where innovation occurs most frequently. In San Joaquin County, Agriculture and Health Care are the two largest industry clusters. For this study, we have also included the retail sector and the accommodations and food services sector to reflect job opportunities in the local-serving (i.e. retail and food services) and tourism industries (i.e. accommodations).

The Agriculture cluster includes not only farm production, but also food processing, related distribution and logistics, and a variety of agricultural services that include fertilizers, irrigation, soil testing, veterinary services, and marketing among others (Detailed cluster and sub-cluster employment data are in the Appendix at "Detailed Industry Cluster Employment Projections"). This cluster cuts across several of the major industry groups shown in Table 4 above. In addition, several agricultural support industries closely related to field operations are also projected to reduce jobs, as shown in Table 7



below. However, within the broader Agricultural cluster, a number of food processing industries are projected to increase employment, including all other miscellaneous food manufacturing (NAICS 311999), meat processing from carcasses (NAICS 311612), wet corn milling (NAICS 311221), and wineries (NAICS 312130) are expected to each increase by at least 200 new jobs between 2015 and 2025. In addition, the agriculture related distribution (logistics) sector is projected to add about 5,400 jobs over the next ten years (Appendix Table 1).

The Health and Wellness cluster is projected to add almost 7,300 jobs by 2025 (Table 6). Of the 7,300 new jobs, almost 3,900 (54 percent) will occur in the Health Care – Delivery sub-cluster. Within this sub-cluster, the number of jobs in HMO medical centers (NAICS 621491) is projected to increase by almost 1,000 new jobs, with another 800 new jobs projected for skilled nursing care facilities (NAICS 623110). Some of the new jobs will occur in hospital settings but many will be in outpatient facilities and various types of nursing and residential care facilities. (see Appendix Table 6 and 7 for detail on industries with lower job projections). Another growing Health and Wellness Cluster industry is services for the elderly and disabled (NAICS 624120), which is projected to increase by 3,200 jobs between 2015 and 2025.



**Table 6 — Employment Projections by Industry Clusters: San Joaquin County**

	Employment		Change 15-25	Ann.Per. Chg.
	2015	2025p		
<b>Total</b>	<b>178,010</b>	<b>206,375</b>	<b>28,365</b>	<b>1.5%</b>
Energy	11,301	13,199	1,898	1.6%
Manufacturing	8,464	9,026	561	0.6%
Health and Wellness	25,092	29,036	3,944	1.5%
Health and Wellness: Other	10,559	13,934	3,375	2.8%
	35,651	42,970	7,318	1.9%
Agriculture	60,807	68,307	7,499	1.2%
Water Flow Technology	1,467	1,734	267	1.7%
Logistics	15,329	18,898	3,570	2.1%
Retail	26,006	30,471	4,465	1.6%
Accommodations and Food Services	17,769	20,957	3,188	1.7%
Heavy Construction	1,216	814	-402	-3.9%

Source: Applied Development Economics, based on EMSI

In addition to tracking growing industries, our analysis also identifies industries that are expected to decline. Below are industries within various clusters expected to decline by 50 or more workers between 2015 and 2025. While food processing generally exhibits strong growth over the next ten years, there are several food processing industries within the Ag Cluster that expected to decline, such as roasted nuts (NAICS 311911), breakfast cereal manufacturing (NAICS 311230), cheese manufacturing (NAICS 311513), to name a few.

**Table 7 — Industries within Various Clusters That Are Expected to Decline Significantly Between 2015 and 2025: San Joaquin County**

Cluster	NAICS	Industry	Employment		Change	CAGR
			2015	2025p	'15-'25	'15-'25
Ag and Food -- Distribution	445299	All Other Specialty Food Stores	104	3	-101	-30%
Ag and Food -- Distribution	424470	Meat and Meat Product Merchant Wholesalers	78	20	-58	-13%
Ag and Food -- Distribution	424440	Poultry and Poultry Product Merchant Wholesalers	55	3	-52	-25%
Ag and Food -- Processing	311911	Roasted Nuts and Peanut Butter Manufacturing	443	76	-367	-16%
Ag and Food -- Processing	311230	Breakfast Cereal Manufacturing	305	51	-254	-16%
Ag and Food -- Processing	311513	Cheese Manufacturing	249	134	-115	-6%
Ag and Food -- Processing	326160	Plastics Bottle Manufacturing	115	18	-97	-17%
Ag and Food -- Processing	311111	Dog and Cat Food Manufacturing	222	132	-90	-5%
Ag and Food -- Processing	311812	Commercial Bakeries	695	632	-63	-1%
Ag and Food -- Processing	311615	Poultry Processing	110	53	-57	-7%



			Employment		Change	CAGR
Cluster	NAICS	Industry	2015	2025p	'15-'25	'15-'25
Ag and Food -- Processing	322211	Corrugated and Solid Fiber Box Manufacturing	254	201	-53	-2%
Ag and Food -- Production	112000	Animal Production and Aquaculture	1,399	1,219	-180	-1%
Ag and Food -- Production	111000	Crop Production	6,979	6,809	-170	0%
Ag and Food -- Support	561730	Landscaping Services	750	614	-137	-2%
Ag and Food -- Support	522292	Real Estate Credit	123	3	-120	-31%
Ag and Food -- Support	237110	Water and Sewer Line and Related Structures Construction	168	62	-106	-9%
Ag and Food -- Support	551114	Corporate, Subsidiary, and Regional Managing Offices	1,698	1,609	-89	-1%
Ag and Food -- Support	561110	Office Administrative Services	326	250	-76	-3%
Ag and Food -- Support	332311	Prefabricated Metal Building and Component Manufacturing	179	109	-70	-5%
Ag and Food -- Support	115114	Postharvest Crop Activities (except Cotton Ginning)	1,940	1,881	-58	0%
Ag and Food -- Support	325312	Phosphatic Fertilizer Manufacturing	144	92	-52	-4%
Ag and Food -- Support	561710	Exterminating and Pest Control Services	136	86	-50	-4%
Energy Cluster and Sub-Clusters	237110	Water and Sewer Line and Related Structures Construction	168	62	-106	-9%
Energy Cluster and Sub-Clusters	238160	Roofing Contractors	287	237	-50	-2%
Health and Wellness -- Health Care - Delivery	622110	Residential Intellectual and Developmental Disability Facilities	5,091	4,133	-958	-2%
Health and Wellness -- Health Care - Delivery	623210	Residential Intellectual and Developmental Disability Facilities	469	316	-154	-4%
Health and Wellness -- Health Care - Delivery	621410	Residential Intellectual and Developmental Disability Facilities	84	3	-81	-28%
Health and Wellness -- Health Care - Delivery	623990	Other Residential Care Facilities	76	3	-73	-28%
Health and Wellness: All Others	624190	Other Individual and Family Services	682	562	-120	-2%
Logistics --	561910	Packaging and Labeling Services	151	67	-84	-8%
Logistics --	484210	Used Household and Office Goods Moving	79	3	-76	-28%
Manufacturing -- Other	321918	Other Millwork (including Flooring)	157	3	-154	-33%



Cluster	NAICS	Industry	Employment		Change	CAGR
			2015	2025p	'15-'25	'15-'25
Manufacturing -- Other	327332	Concrete Pipe Manufacturing	192	65	-127	-10%
Manufacturing -- Other	323111	Commercial Printing (except Screen and Books)	195	82	-113	-8%
Manufacturing -- Other	321214	Truss Manufacturing	99	3	-96	-29%
Manufacturing -- Other	326140	Polystyrene Foam Product Manufacturing	81	3	-78	-28%
Manufacturing -- Other	321991	Manufactured Home (Mobile Home) Manufacturing	76	0	-76	-100%
Manufacturing -- Other	332311	Prefabricated Metal Building and Component Manufacturing	179	109	-70	-5%
Manufacturing -- Other	325312	Phosphatic Fertilizer Manufacturing	144	92	-52	-4%
Manufacturing -- Other	332114	Custom Roll Forming	225	175	-50	-2%
Water Flow Technology --	326122	Plastics Pipe and Pipe Fitting Manufacturing	132	32	-100	-13%

## PROJECTED JOB OPENINGS

Labor force demand is not only affected by new jobs growth but also by changes in the labor force. As discussed in the next chapter, as the Baby Boomer generation ages out of the labor force, there will be an increasing need for replacement workers. In addition, job turnover occurs for a number of other reasons. As shown in Table 8, nearly 61,000 openings are projected between 2015 and 2025, of which approximately 33,300 would be due to new job growth. The 61,000 openings over the ten-year 2015-2025 period is based on the annual average of 6,133 openings multiplied over ten years, and the 33,300 job growth over the same period is the net increase in jobs identified above in Table 4.

**Table 8 — Annual Opening To Number of Unemployed Who Satisfy Minimum Educational Requirements by Occupation: San Joaquin County**

Occupational Category	Annual Openings	Unemployed Whose Educational Attainment Matches Occupational Requirement	Part-Time Labor Whose Educational Attainment Matches Occupational Requirement
<b>Total</b>	<b>6,133</b>	<b>11,327</b>	<b>32,051</b>
53 Transportation and Material Moving	1,363	3,140	5,506
51 Production	77	222	131
49 Installation, Maintenance, and Repair	70	34	83
47 Construction and Extraction	56	618	869



<b>Occupational Category</b>	<b>Annual Openings</b>	<b>Unemployed Whose Educational Attainment Matches Occupational Requirement</b>	<b>Part-Time Labor Whose Educational Attainment Matches Occupational Requirement</b>
45 Farming, Fishing, and Forestry	267	247	1,186
43 Office and Administrative Support	763	2,769	5,876
41 Sales and Related	1,049	1,012	5,066
39 Personal Care and Service	206	533	1,252
37 Building and Grounds Cleaning and Maintenance	150	0	0
35 Food Preparation and Serving Related	1,000	1,471	6,257
33 Protective Service	119	177	379
31 Healthcare Support	509	743	1,209
29 Healthcare Practitioners and Technical	190	14	858
27 Arts, Design, Entertainment, Sports, and Media	< 50	0	0
25 Education, Training, and Library	150	257	3,124
23 Legal	< 50	0	0
21 Community and Social Services	< 50	0	0
19 Life, Physical, and Social Science	< 50	0	0
17 Architecture and Engineering	< 50	0	0
15 Computer and Mathematical	< 50	0	0
13 Business and Financial Operations	51	89	253
11 Management	113	0	0

Source: Applied Development Economics, based on EMSI and US Census ACS 3-Year Sample 2012-2014 (from iPUMS)



# LABOR FORCE CHARACTERISTICS

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The analysis of labor force characteristics includes details about the following groups:

- Race and Ethnicity: White, Latino, Other
- Gender
- Veteran Status
- Disability Status
- Citizenship

The characteristics include:

- Age
- Educational Attainment
- Employment status: full time, part time, unemployed
- Occupation

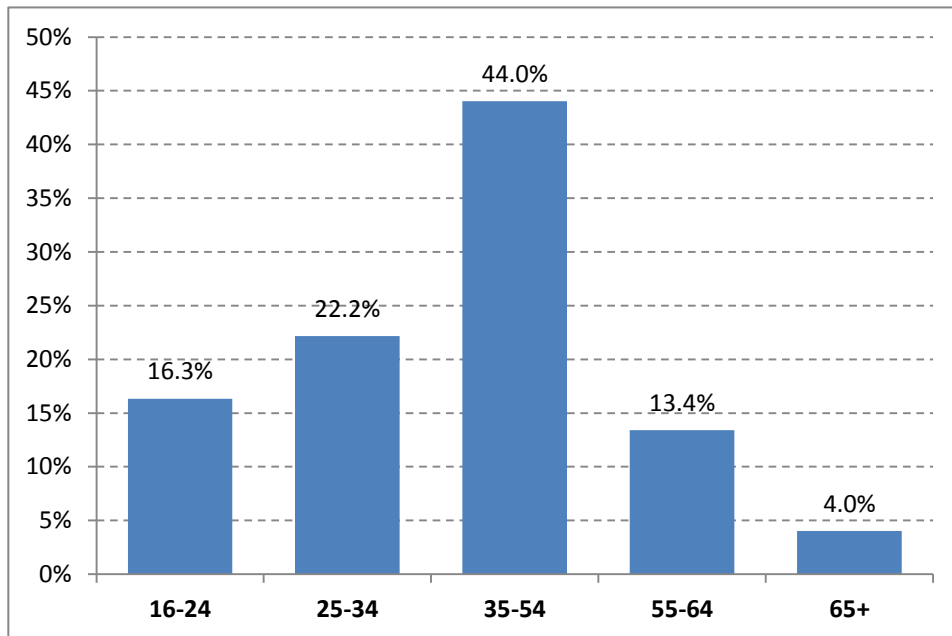
The discussion is organized around a number of graphical charts that summarize the information; however, Tables 10-26 at the end of the chapter provide more detail for these groups and demographic characteristics.

## AGE DEMOGRAPHICS

The labor force in San Joaquin County is generally concentrated in the younger age groups, with 16 percent in the 16-24 age group, and 22 percent of the 25-34 age group (Figure 2). The prime working age group of 35-54 has 44 percent of the workforce, which is less concentrated on a year to year basis than the younger age groups. Workers over 55 constitute about 17 percent of the workforce and a number of employers report that impending retirements are a significant issue for them in terms of anticipated openings in the future.



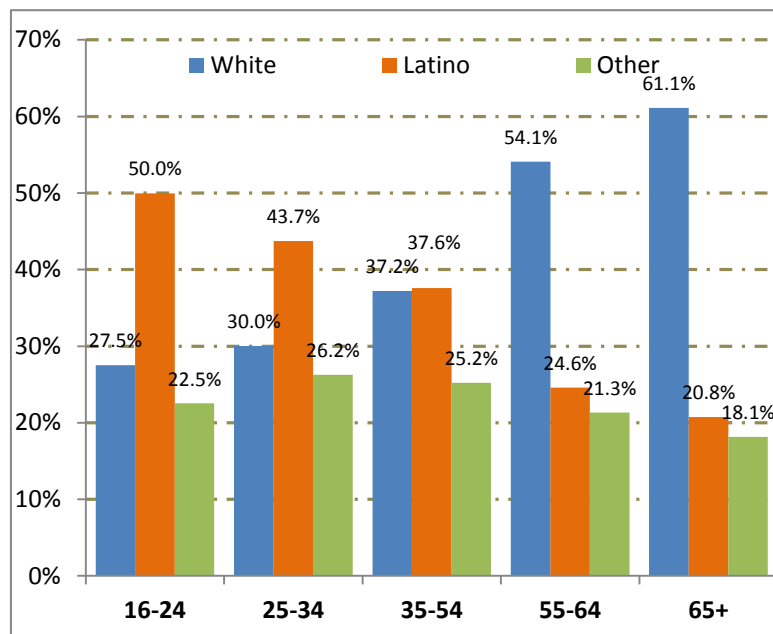
**Figure 2 – Labor Force Age Distribution (Persons 16 and Over)**



Source: ADE, Inc., based on US Census ACS PUMS 2012-2014 (from iPUMS)

As shown in Figure 3, younger age groups tend to have a higher proportion of Latino workers while older age groups have higher percentages of white workers. Of the labor force between 16 and 24, almost 50 percent are Latino, while almost 28 percent White. Similarly for the 25-34 age cohort, 44 percent are Latino and 30 percent are White. As for the prime working-age 35 to 54 workforce, White and Latinos comprise this cohort at nearly identical levels of 37 percent. Whites are the largest share of persons in cohorts 55 and above.

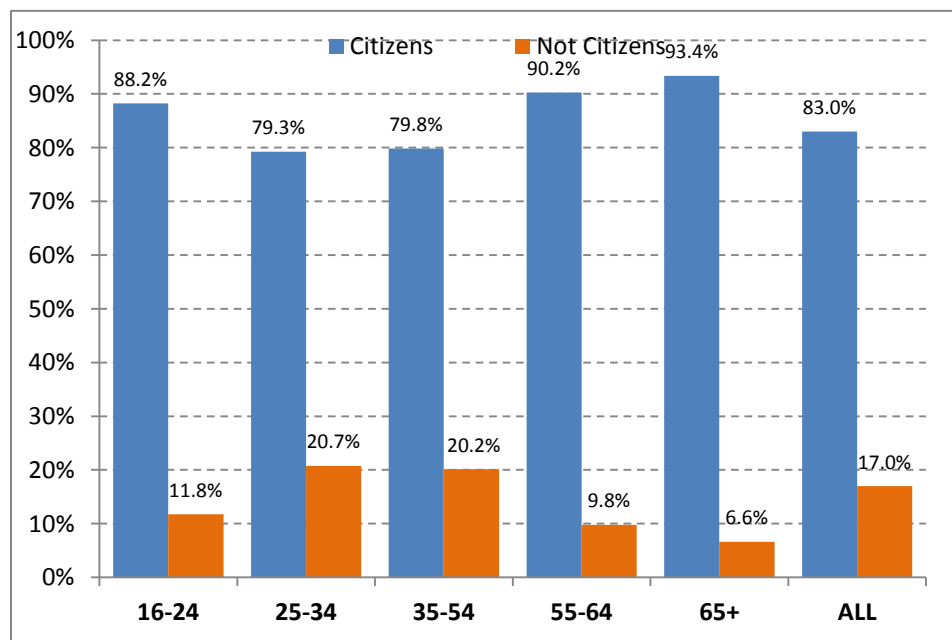
**Figure 3 – Age Distribution by Race/Ethnicity (Persons 16 and Over)**





Non-citizen workers constitute 17 percent of the workforce in San Joaquin County, though the rate varies with age (Figure 4). At 20 percent of the millennial (25 to 34) and prime working age (35 to 54) labor force, non-citizens are somewhat more concentrated in these two sub-populations relative to their overall concentration level, i.e. 17 percent. In contrast, non-citizens comprise only 12 percent of the labor force between 16 and 24.

**Figure 4 – Labor Force By Age and By Citizenship Status (16 and over)**



Source: ADE, Inc., based on US Census ACS PUMS 2012-2014 (from iPUMS)

## UNEMPLOYMENT

In San Joaquin County, almost 39 percent of the labor force is Latino, at 124,439 persons out of a labor force of 322,820 (see Table 8 at the end of the Chapter). Thirty-seven percent is White. Unemployment for Latino workers 25 and older is 10.1 percent compared to 9.6 percent for Whites. Unemployment is 15.8 percent for workers in other racial and ethnic groups. Unemployment affects workers 25 and older with no college degree much more, at 13.5 percent, than those with a college degree (6.5 percent). Veterans' unemployment level is at 9.1 percent. Disabled workers have relatively high unemployment, at nearly 22.4 percent.

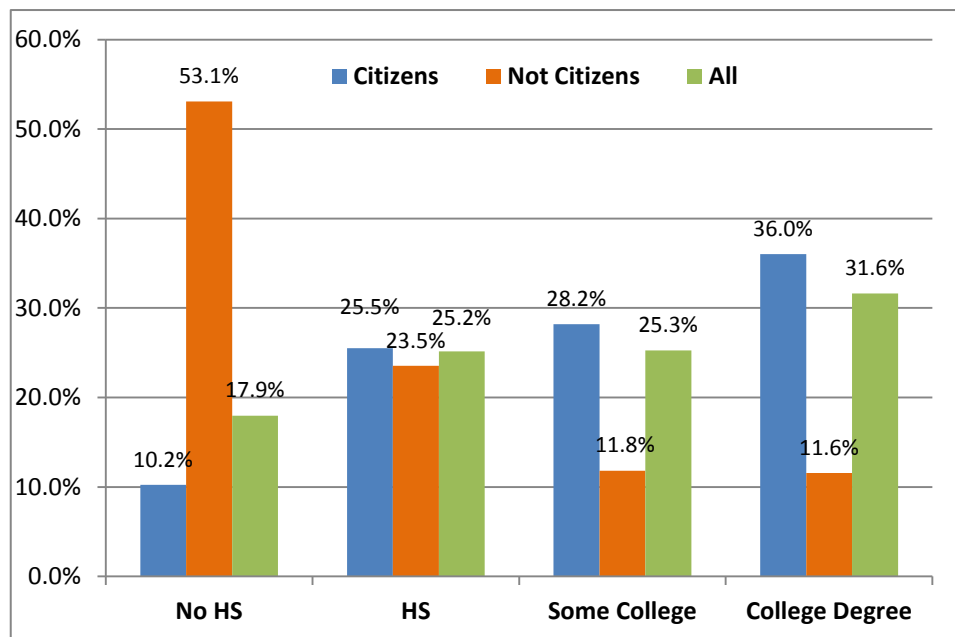
## EDUCATIONAL ATTAINMENT

The San Joaquin County workforce exhibits comparable educational attainment to the rest of the San Joaquin Valley region. Among US citizens in the workforce, only 10 percent do not have a high school diploma or GED and 64 percent have some college experience or an AA degree or higher. However, it is important to recognize that many non-citizens have not had the same educational opportunities in their home countries and many have not achieved the equivalent of a high school diploma. As shown in Figure 5, 53 percent of the non-citizens 25 and over in the labor force have not obtained a high



school diploma or a GED. Almost 23.5 percent of non-citizens in the labor force have earned a high school diploma or equivalent, which is only two percentage points lower than the rate for citizens (i.e. 25.5 percent). This accounts in part for the differences in educational attainment between Latino workers and other workers in the labor force (Figure 6), as the non-citizen group is 77 percent Latino; almost 38 percent of all Latinos in the workforce have no high school diploma or GED. Whites and Others are almost three times more likely than Latinos to have earned a college degree: 12 percent of the Latinos in the labor force have earned a college degree versus 36 percent for Whites and 32 percent for Others (Figure 6).

**Figure 5 – Labor Force Educational Attainment by Citizenship Status (25 and over)**

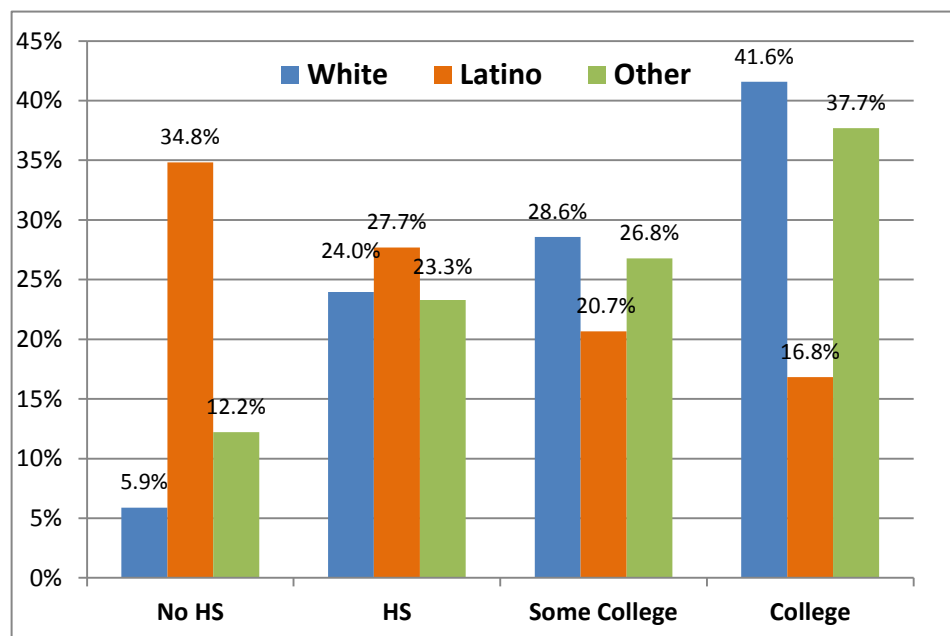


Source: ADE, Inc., based on US Census ACS PUMS 2012-2014 (from iPUMS)

Educational attainment also affects employment status. Persons with no high school diploma exhibit rates of unemployment that more than double unemployment levels for persons with a college degree, or 14.1 percent versus 6.5 percent. Of the persons with a college degree, almost 68 percent work full-time, resulting in a full-time employment rate that is 13 percentage points greater than the rate for persons without a high school diploma (i.e. 68.0 percent versus 55.1 percent).

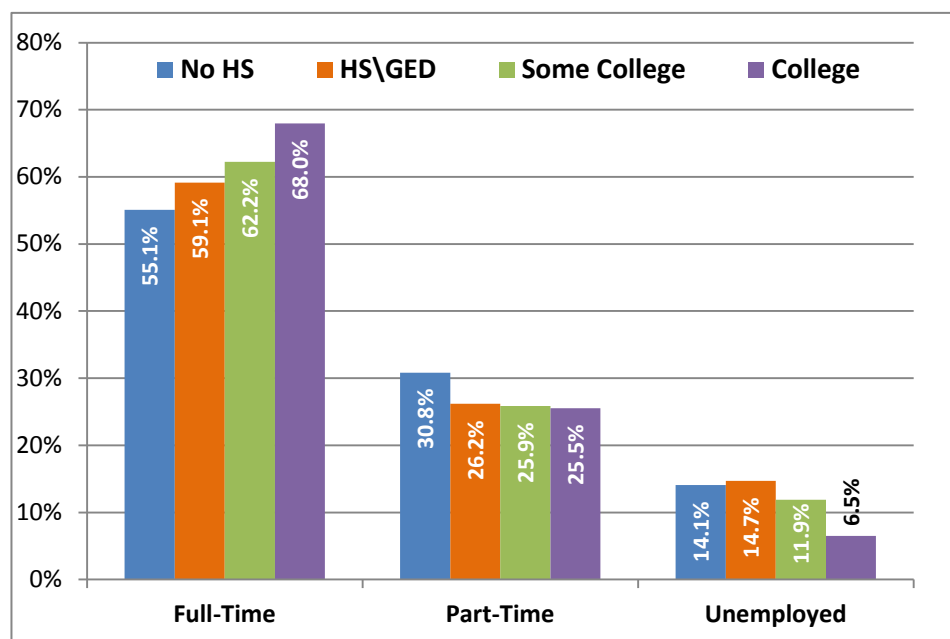


**Figure 6 – Educational Attainment by Race/Ethnicity**



Source: ADE, Inc., based on US Census ACS PUMS 2012-2014 (from iPUMS)

**Figure 7 – Employment Status By Educational Attainment (25 and Over)**

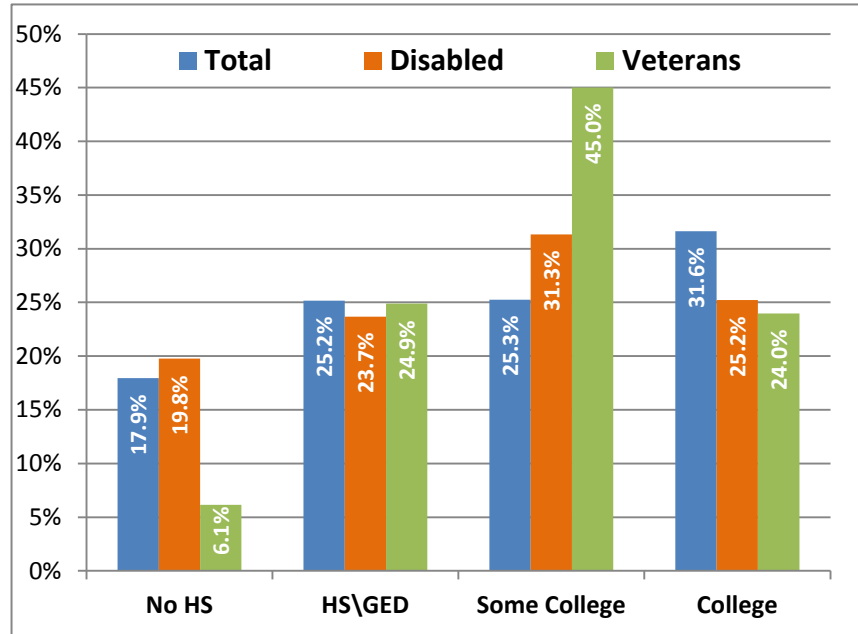


Source: ADE, Inc., based on US Census ACS PUMS 2012-2014 (from iPUMS)

Veterans in San Joaquin County tend to have high levels of overall educational attainment, with six percent not achieving a high school diploma (Figure 8). For the workforce as a whole, almost 18 percent do not have a high school diploma or equivalent degree. Among disabled workers, however, nearly 20 percent do not have a high school diploma.



**Figure 8 – Educational Attainment for Disabled Workers and Veterans (25 and Over)**



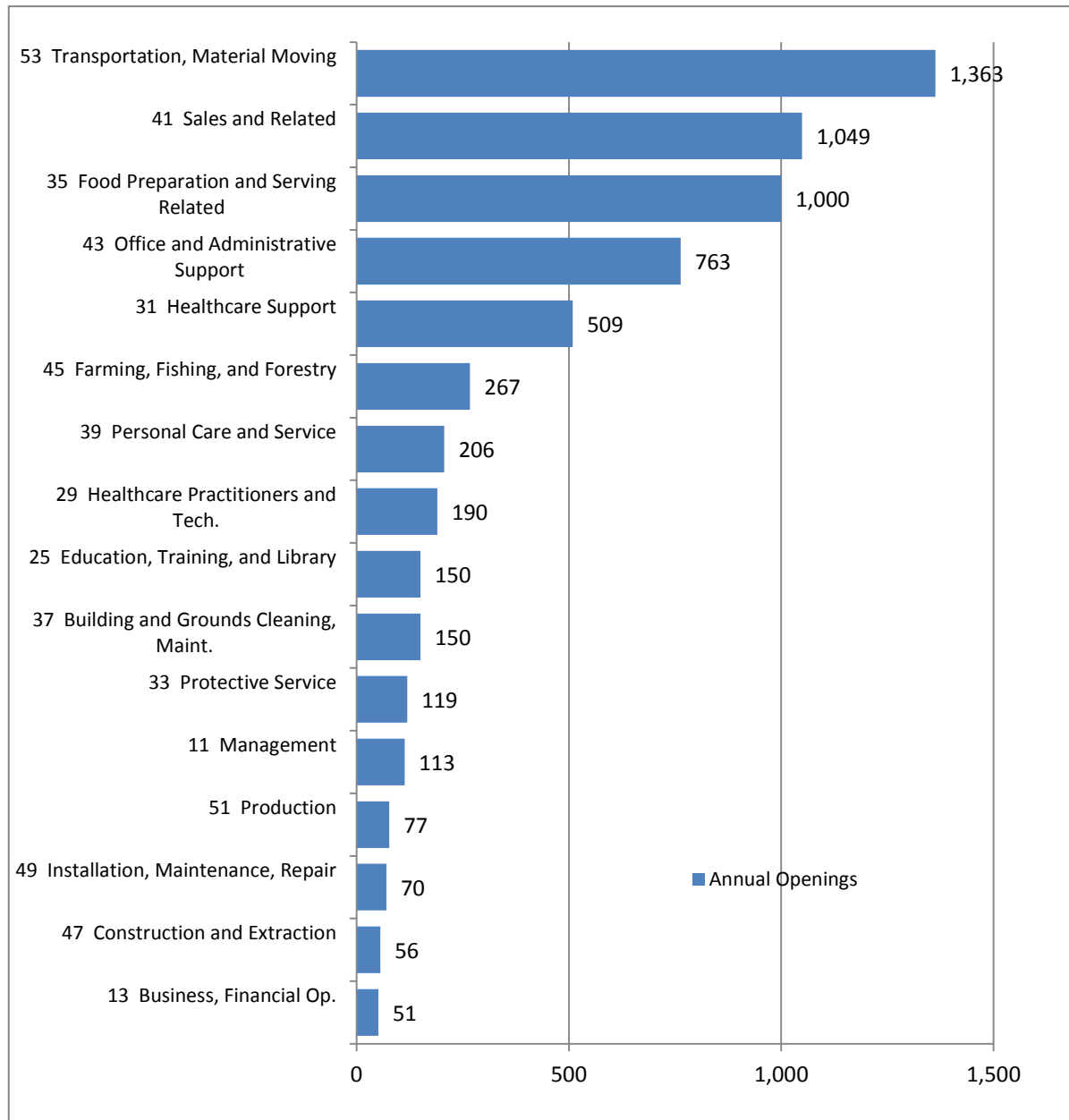
Source: ADE, Inc., based on US Census ACS PUMS 2012-2014 (from iPUMS)

## UNDERUTILIZED WORKFORCE

This part of report provides a focus on part time and unemployed labor force in terms of how their educational attainment and prior occupational background matches projected annual job openings. Figure 9 reproduces the major categories of job openings listed earlier in Table 8. The largest numbers of openings are in lower skilled occupations such as farming, food service, sales and administrative office occupations. However, significant number so openings are also projected in education, production, healthcare practitioners and personal care services, which are followed closely by management and healthcare positions. Comparing these categories to the availability of currently unemployed and part time workers in Figure 10, there are substantial numbers of workers who would seemingly be available to fill these positions. However, they may need training to help upgrade their skill sets or they may need other services to help them be available for full time employment.

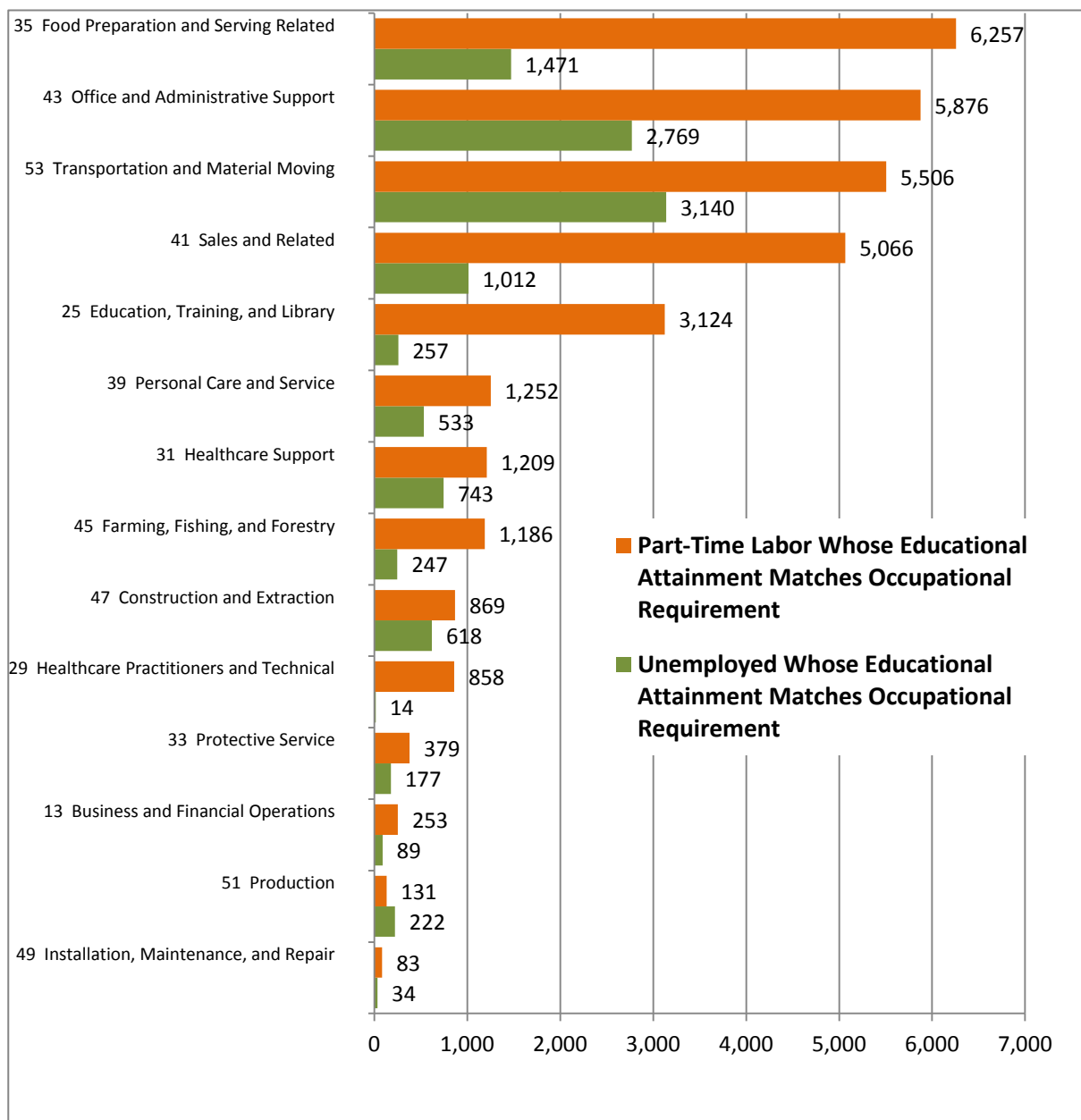


**Figure 9 – Annual Openings By Major Occupational Groups**





**Figure 10 - Number of Unemployed and Part-Time Labor Force by Major Occupational Group**

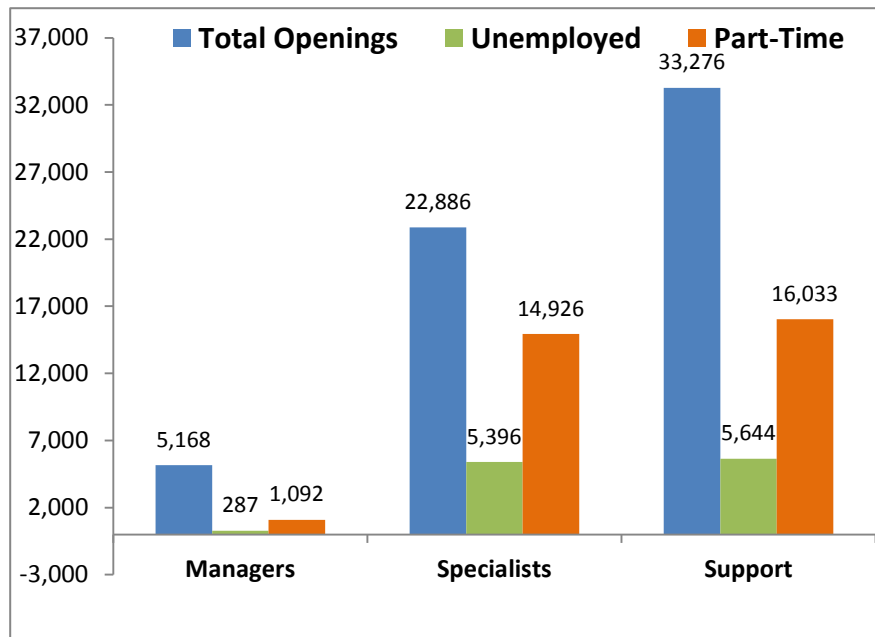


Source: ADE, Inc., based on US Census ACS PUMS 2012-2014 (from iPUMS)

Figure 11 groups job openings by three main categories of occupational level: managers and supervisory personnel; workers with specialty or higher level skills; and support positions that are more entry level or have a lower required skill set. At this level, the unemployed and part time workforce combined exceeds the available openings (shown in blue) for each category, reinforcing the notion that retraining and skills transfer may help improve the availability of workers for positions in demand by employers.



**Figure 11 – Part Time and Unemployment Workers By Occupational Class Compared To Total Openings: Only Persons Whose Educational Attainment Commensurate With Opening Position: San Joaquin County**

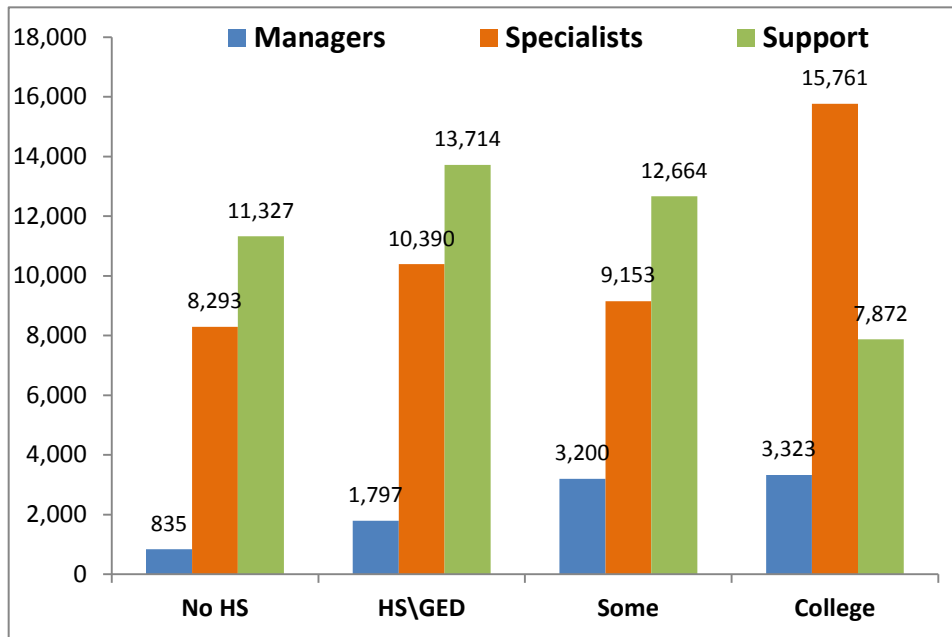


Source: ADE, Inc., based on US Census ACS PUMS 2012-2014 (from iPUMS)

Figure 12 shows the educational level for the unemployed and part time workforce, categorized by occupational background. This figure tracks all unemployed and part-time workers, not just those who minimally qualify for the annually open positions. There are relatively few managers who have not achieved a high school diploma and the greatest number do have a high school diploma; of the 20,455 persons with no high school diploma, 835 (4 percent) are managers. Interestingly, the 835 managers with no high school diploma represent 9 percent of all managers (835 out of 9,155), although more than likely these persons hold lower-level managerial positions. Among mid-level workers with some special skills, most have either a college degree (15,761 out of 43,597), or have had some college courses (9,153). Almost 7,872 workers who most recently worked in support positions also have a college degree.



**Figure 12 – Part Time and Unemployed Workers By Educational Attainment and Occupational Class (Persons 25 and Over, and all occupations): San Joaquin County**



Source: ADE, Inc., based on US Census ACS PUMS 2012-2014 (from iPUMS)



**Table 9 — Summary of Overall Labor Force Trends for Select Demographic Categories: San Joaquin County**

	Labor Force Trends By Race and Ethnicity (Persons 16 and Over)	Labor Force Trends By Gender (Persons 16 and Over)	Labor Force Trends By Citizenship Status (Persons 16 and Over)	Labor Force Trends By Educational Attainment (Persons 25 and Over)	Labor Force Trends By Veteran Status (Persons 16 and Over)	Labor Force Trends By Disability Status (Persons 16 and Over)
	<b>White</b>	<b>Women</b>	<b>Citizens</b>	<b>Persons with College Degree</b>	<b>Veterans</b>	<b>Persons with at least One Disability</b>
Labor Force	120,287	146,494	268,010	85,429	15,233	18,132
Unemployed	13,435	20,577	36,138	5,540	1,391	4,070
Unemployment Rate	11.2%	14.0%	13.5%	6.5%	9.1%	22.4%
	<b>Latino</b>	<b>Men</b>	<b>Not Citizens</b>	<b>Persons with No College Degree</b>	<b>Not Veterans</b>	<b>Persons with No Reported Disability</b>
Labor Force	124,439	176,326	54,810	184,631	306,519	304,688
Unemployed	15,906	22,363	6,802	24,934	41,160	38,869
Unemployment Rate	12.8%	12.7%	12.4%	13.5%	13.4%	12.8%
	<b>Other</b>				<b>Veteran Status Unknown</b>	
Labor Force	78,093				1,068	
Unemployed	13,598				389	
Unemployment Rate	17.4%				36.4%	
	<b>Total</b>	<b>Total</b>		<b>Total</b>	<b>Total</b>	<b>Total</b>
Labor Force	322,820	322,820	322,820	270,060	322,820	322,820
Unemployed	42,939	42,939	42,939	30,474	42,939	42,939
Unemployment Rate	13.3%	13.3%	13.3%	11.3%	13.3%	13.3%



**Table 10 – Population by race, Age, and Educational Attainment: San Joaquin County**

	<b>0-15</b>	<b>16-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-54</b>	<b>55-64</b>	<b>65+</b>	<b>Total</b>
<b>Total</b>	<b>177,304</b>	<b>43,359</b>	<b>53,205</b>	<b>46,781</b>	<b>47,126</b>	<b>184,006</b>	<b>75,461</b>	<b>80,758</b>	<b>708,000</b>
<b>White</b>	<b>38,805</b>	<b>10,837</b>	<b>14,378</b>	<b>13,942</b>	<b>13,577</b>	<b>66,966</b>	<b>38,085</b>	<b>46,911</b>	<b>243,502</b>
Did not earn HSD\GED	32,422	6,685	1,188	1,269	1,318	5,564	2,583	5,929	<b>56,960</b>
HSD\GED		1,899	5,052	3,715	3,456	17,869	10,028	14,052	<b>56,072</b>
Some college -- not attending		126	2,478	3,032	2,727	18,439	10,727	12,613	<b>50,140</b>
Some college -- attending	15	2,127	2,971	1,315	409	1,477	194	80	<b>8,589</b>
AA			1,376	1,370	2,099	7,064	4,354	4,517	<b>20,780</b>
BA+			1,312	3,241	3,568	16,553	10,199	9,721	<b>44,594</b>
NA	6,367								<b>6,367</b>
<b>Latino</b>	<b>92,970</b>	<b>20,796</b>	<b>24,762</b>	<b>20,736</b>	<b>21,638</b>	<b>69,023</b>	<b>18,389</b>	<b>15,718</b>	<b>284,033</b>
Did not earn HSD\GED	76,267	13,138	5,731	6,247	8,363	27,576	7,752	8,573	<b>153,647</b>
HSD\GED		4,341	7,984	6,038	6,071	18,458	4,047	3,323	<b>50,262</b>
Some college -- not attending		220	3,202	3,748	3,100	12,401	3,935	2,282	<b>28,889</b>
Some college -- attending		3,029	4,941	1,568	771	812	55		<b>11,175</b>
AA		68	1,773	1,931	1,400	4,255	1,264	849	<b>11,540</b>
BA+			1,131	1,204	1,933	5,522	1,336	691	<b>11,817</b>
NA	16,703								<b>16,703</b>
<b>Other</b>	<b>45,529</b>	<b>11,725</b>	<b>14,065</b>	<b>12,103</b>	<b>11,911</b>	<b>48,017</b>	<b>18,987</b>	<b>18,129</b>	<b>180,465</b>
Did not earn HSD\GED	38,372	6,945	1,931	1,274	1,892	7,329	5,403	6,467	<b>69,614</b>
HSD\GED		2,457	3,528	3,497	3,053	11,380	4,014	3,495	<b>31,423</b>
Some college -- not attending		135	2,057	3,186	2,677	11,294	3,453	2,421	<b>25,223</b>
Some college -- attending		2,157	3,607	467	439	1,474	210	39	<b>8,392</b>
AA		31	1,029	1,156	1,401	4,737	1,547	1,640	<b>11,541</b>
BA+			1,913	2,523	2,449	11,802	4,361	4,068	<b>27,116</b>
NA	7,157								<b>7,157</b>



**Table 11 — Labor Force by Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over): San Joaquin County**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>12,845</b>	<b>39,914</b>	<b>35,623</b>	<b>35,926</b>	<b>142,152</b>	<b>43,314</b>	<b>13,045</b>	<b>270,061</b>	<b>322,820</b>
<b>White</b>	<b>3,278</b>	<b>11,233</b>	<b>10,586</b>	<b>10,891</b>	<b>52,903</b>	<b>23,427</b>	<b>7,970</b>	<b>105,776</b>	<b>120,287</b>
Did not earn HSD\GED	NA	NA	619	863	3,394	1,014	340	<b>6,230</b>	NA
HSD\GED	NA	NA	2,526	2,626	13,611	5,081	1,513	<b>25,358</b>	NA
Some college -- not attending	NA	NA	2,422	1,863	14,391	6,614	2,278	<b>27,568</b>	NA
Some college -- attending	NA	NA	872	409	1,183	155	30	<b>2,649</b>	NA
AA	NA	NA	1,301	1,846	6,062	2,844	1,377	<b>13,430</b>	NA
BA+	NA	NA	2,846	3,284	14,261	7,718	2,431	<b>30,540</b>	NA
<b>Latino</b>	<b>6,984</b>	<b>19,380</b>	<b>15,455</b>	<b>15,843</b>	<b>53,415</b>	<b>10,655</b>	<b>2,708</b>	<b>98,075</b>	<b>124,439</b>
Did not earn HSD\GED	NA	NA	3,781	5,290	19,843	4,115	1,123	<b>34,151</b>	NA
HSD\GED	NA	NA	5,004	4,695	14,434	2,523	507	<b>27,163</b>	NA
Some college -- not attending	NA	NA	2,849	2,348	9,744	2,281	625	<b>17,847</b>	NA
Some college -- attending	NA	NA	1,176	484	701	55	0	<b>2,416</b>	NA
AA	NA	NA	1,792	1,252	3,677	687	25	<b>7,434</b>	NA
BA+	NA	NA	853	1,773	5,016	994	428	<b>9,064</b>	NA
<b>Other</b>	<b>2,583</b>	<b>9,300</b>	<b>9,582</b>	<b>9,193</b>	<b>35,834</b>	<b>9,233</b>	<b>2,368</b>	<b>66,210</b>	<b>78,093</b>
Did not earn HSD\GED	NA	NA	716	1,040	3,780	2,016	539	<b>8,091</b>	NA
HSD\GED	NA	NA	2,690	2,397	8,111	1,807	424	<b>15,428</b>	NA
Some college -- not attending	NA	NA	2,746	2,271	8,994	1,774	240	<b>16,026</b>	NA
Some college -- attending	NA	NA	389	439	824	52	0	<b>1,704</b>	NA
AA	NA	NA	1,029	908	3,831	904	254	<b>6,926</b>	NA
BA+	NA	NA	2,012	2,138	10,295	2,680	910	<b>18,035</b>	NA



**Table 12 — Part-Time Labor Force by Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over): San Joaquin County**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>7,428</b>	<b>21,212</b>	<b>11,007</b>	<b>9,621</b>	<b>34,707</b>	<b>10,610</b>	<b>6,248</b>	<b>72,193</b>	<b>100,833</b>
<b>White</b>	<b>1,993</b>	<b>6,439</b>	<b>2,826</b>	<b>2,680</b>	<b>12,570</b>	<b>5,403</b>	<b>3,682</b>	<b>27,162</b>	<b>35,594</b>
Did not earn HSD\GED	NA	NA	55	227	1,072	313	49	<b>1,715</b>	NA
HSD\GED	NA	NA	436	629	3,016	1,144	765	<b>5,990</b>	NA
Some college -- not attending	NA	NA	554	365	3,780	1,454	1,032	<b>7,186</b>	NA
Some college -- attending	NA	NA	440	209	349	0	0	<b>998</b>	NA
AA	NA	NA	270	490	1,396	717	614	<b>3,487</b>	NA
BA+	NA	NA	1,071	760	2,957	1,776	1,222	<b>7,786</b>	NA
<b>Latino</b>	<b>3,954</b>	<b>9,350</b>	<b>5,388</b>	<b>4,486</b>	<b>14,410</b>	<b>3,276</b>	<b>1,315</b>	<b>28,875</b>	<b>42,179</b>
Did not earn HSD\GED	NA	NA	1,399	1,783	5,771	1,592	576	<b>11,122</b>	NA
HSD\GED	NA	NA	1,688	1,107	3,756	647	229	<b>7,426</b>	NA
Some college -- not attending	NA	NA	877	752	2,301	536	293	<b>4,759</b>	NA
Some college -- attending	NA	NA	622	149	112	22	0	<b>906</b>	NA
AA	NA	NA	540	412	1,021	246	25	<b>2,244</b>	NA
BA+	NA	NA	261	284	1,450	232	192	<b>2,418</b>	NA
<b>Other</b>	<b>1,481</b>	<b>5,423</b>	<b>2,793</b>	<b>2,455</b>	<b>7,727</b>	<b>1,930</b>	<b>1,251</b>	<b>16,156</b>	<b>23,060</b>
Did not earn HSD\GED	NA	NA	103	241	828	468	461	<b>2,102</b>	NA
HSD\GED	NA	NA	970	584	2,303	289	225	<b>4,372</b>	NA
Some college -- not attending	NA	NA	537	464	1,649	273	129	<b>3,052</b>	NA
Some college -- attending	NA	NA	87	271	383	0	0	<b>742</b>	NA
AA	NA	NA	210	284	393	176	109	<b>1,172</b>	NA
BA+	NA	NA	886	610	2,170	724	326	<b>4,716</b>	NA

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from IPUMS



**Table 13 — Unemployed Labor Force by Age, Race\Ethnicity, and Education (Persons 16 and Over): San Joaquin County**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>4,544</b>	<b>7,922</b>	<b>4,700</b>	<b>4,526</b>	<b>15,395</b>	<b>4,807</b>	<b>1,046</b>	<b>30,474</b>	<b>42,939</b>
<b>White</b>	<b>1,072</b>	<b>2,240</b>	<b>1,080</b>	<b>1,387</b>	<b>4,913</b>	<b>2,014</b>	<b>729</b>	<b>10,123</b>	<b>13,435</b>
Did not earn HSD\GED	NA	NA	63	326	679	141	70	<b>1,279</b>	NA
HSD\GED	NA	NA	505	393	1,725	749	221	<b>3,593</b>	NA
Some college -- not attending	NA	NA	236	317	1,291	609	228	<b>2,680</b>	NA
Some college -- attending	NA	NA	119	0	102	40	30	<b>291</b>	NA
AA	NA	NA	68	194	602	152	70	<b>1,086</b>	NA
BA+	NA	NA	89	156	516	323	110	<b>1,194</b>	NA
<b>Latino</b>	<b>2,369</b>	<b>3,638</b>	<b>1,529</b>	<b>1,553</b>	<b>5,356</b>	<b>1,291</b>	<b>169</b>	<b>9,899</b>	<b>15,906</b>
Did not earn HSD\GED	NA	NA	423	372	2,250	694	84	<b>3,823</b>	NA
HSD\GED	NA	NA	645	572	1,383	268	25	<b>2,892</b>	NA
Some college -- not attending	NA	NA	282	360	897	105	60	<b>1,705</b>	NA
Some college -- attending	NA	NA	132	92	104	0	0	<b>328</b>	NA
AA	NA	NA	47	75	442	150	0	<b>714</b>	NA
BA+	NA	NA	0	82	280	74	0	<b>437</b>	NA
<b>Other</b>	<b>1,102</b>	<b>2,044</b>	<b>2,091</b>	<b>1,585</b>	<b>5,126</b>	<b>1,502</b>	<b>148</b>	<b>10,452</b>	<b>13,598</b>
Did not earn HSD\GED	NA	NA	171	487	829	246	0	<b>1,733</b>	NA
HSD\GED	NA	NA	969	332	1,666	451	72	<b>3,491</b>	NA
Some college -- not attending	NA	NA	654	520	1,107	392	0	<b>2,673</b>	NA
Some college -- attending	NA	NA	106	119	168	52	0	<b>446</b>	NA
AA	NA	NA	91	0	835	40	0	<b>967</b>	NA
BA+	NA	NA	99	127	521	320	76	<b>1,142</b>	NA

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS



**Table 14 — Unemployment Rates by Age, Race\Ethnicity, and Educational Attainment: San Joaquin County**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>35.4%</b>	<b>19.8%</b>	<b>13.2%</b>	<b>12.6%</b>	<b>10.8%</b>	<b>11.1%</b>	<b>8.0%</b>	<b>11.3%</b>	<b>13.3%</b>
<b>White</b>	<b>32.7%</b>	<b>19.9%</b>	<b>10.2%</b>	<b>12.7%</b>	<b>9.3%</b>	<b>8.6%</b>	<b>9.1%</b>	<b>9.6%</b>	<b>11.2%</b>
Did not earn HSD\GED	NA	NA	10.1%	37.8%	20.0%	13.9%	20.7%	<b>20.5%</b>	NA
HSD\GED	NA	NA	20.0%	15.0%	12.7%	14.7%	14.6%	<b>14.2%</b>	NA
Some college -- not attending	NA	NA	9.7%	17.0%	9.0%	9.2%	10.0%	<b>9.7%</b>	NA
Some college -- attending	NA	NA	13.7%	NA	8.6%	25.8%	100.0%	<b>11.0%</b>	NA
AA	NA	NA	5.3%	10.5%	9.9%	5.3%	5.1%	<b>8.1%</b>	NA
BA+	NA	NA	3.1%	4.8%	3.6%	4.2%	4.5%	<b>3.9%</b>	NA
<b>Latino</b>	<b>33.9%</b>	<b>18.8%</b>	<b>9.9%</b>	<b>9.8%</b>	<b>10.0%</b>	<b>12.1%</b>	<b>6.3%</b>	<b>10.1%</b>	<b>12.8%</b>
Did not earn HSD\GED	NA	NA	11.2%	7.0%	11.3%	16.9%	7.5%	<b>11.2%</b>	NA
HSD\GED	NA	NA	12.9%	12.2%	9.6%	10.6%	4.9%	<b>10.6%</b>	NA
Some college -- not attending	NA	NA	9.9%	15.3%	9.2%	4.6%	9.7%	<b>9.6%</b>	NA
Some college -- attending	NA	NA	11.2%	18.9%	14.8%	NA	NA	<b>13.6%</b>	NA
AA	NA	NA	2.6%	6.0%	12.0%	21.8%	NA	<b>9.6%</b>	NA
BA+	NA	NA	NA	4.6%	5.6%	7.5%	NA	<b>4.8%</b>	NA
<b>Other</b>	<b>42.7%</b>	<b>22.0%</b>	<b>21.8%</b>	<b>17.2%</b>	<b>14.3%</b>	<b>16.3%</b>	<b>6.3%</b>	<b>15.8%</b>	<b>17.4%</b>
Did not earn HSD\GED	NA	NA	23.9%	46.8%	21.9%	12.2%	NA	<b>21.4%</b>	NA
HSD\GED	NA	NA	36.0%	13.9%	20.5%	25.0%	17.1%	<b>22.6%</b>	NA
Some college -- not attending	NA	NA	23.8%	22.9%	12.3%	22.1%	NA	<b>16.7%</b>	NA
Some college -- attending	NA	NA	27.3%	27.2%	20.4%	100.0%	NA	<b>26.2%</b>	NA
AA	NA	NA	8.9%	NA	21.8%	4.5%	NA	<b>14.0%</b>	NA
BA+	NA	NA	4.9%	5.9%	5.1%	11.9%	8.3%	<b>6.3%</b>	NA



**Table 15 - Labor Force by Citizenship Status, Age and Educational Attainment (Persons 16 and Over): San Joaquin County**

	<b>16-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-54</b>	<b>55-64</b>	<b>65+</b>	<b>Labor Force (25+)</b>	<b>Total Labor Force</b>
<b>Total</b>	<b>12,845</b>	<b>39,914</b>	<b>35,623</b>	<b>35,926</b>	<b>142,152</b>	<b>43,314</b>	<b>13,045</b>	<b>270,061</b>	<b>322,820</b>
<b>Citizen</b>	<b>12,073</b>	<b>34,486</b>	<b>29,464</b>	<b>27,243</b>	<b>113,476</b>	<b>39,087</b>	<b>12,181</b>	<b>221,451</b>	<b>268,010</b>
Did not earn HSD\GED	NA	NA	2,272	2,638	11,721	4,585	1,453	<b>22,670</b>	NA
HSD\GED	NA	NA	8,267	7,682	29,625	8,691	2,245	<b>56,510</b>	NA
Some college -- not attending	NA	NA	7,505	5,538	29,994	10,277	3,063	<b>56,377</b>	NA
Some college -- attending	NA	NA	2,316	1,089	2,393	262	30	<b>6,091</b>	NA
AA	NA	NA	3,812	3,644	12,388	4,278	1,656	<b>25,779</b>	NA
BA+	NA	NA	5,291	6,652	27,354	10,994	3,733	<b>54,024</b>	NA
<b>Not Citizen</b>	<b>772</b>	<b>5,428</b>	<b>6,159</b>	<b>8,683</b>	<b>28,676</b>	<b>4,227</b>	<b>864</b>	<b>48,610</b>	<b>54,810</b>
Did not earn HSD\GED	NA	NA	2,843	4,555	15,295	2,559	549	<b>25,802</b>	NA
HSD\GED	NA	NA	1,953	2,036	6,530	721	199	<b>11,439</b>	NA
Some college -- not attending	NA	NA	512	943	3,135	392	81	<b>5,063</b>	NA
Some college -- attending	NA	NA	121	243	315	0	0	<b>679</b>	NA
AA	NA	NA	310	362	1,182	157	0	<b>2,011</b>	NA
BA+	NA	NA	419	544	2,219	398	36	<b>3,615</b>	NA



**Table 16 - Unemployed Labor Force by Citizenship Status, Age and Educational Attainment (Persons 16 and Over): San Joaquin County**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>4,544</b>	<b>7,922</b>	<b>4,700</b>	<b>4,526</b>	<b>15,395</b>	<b>4,807</b>	<b>1,046</b>	<b>30,474</b>	<b>42,939</b>
<b>Citizen</b>	<b>4,408</b>	<b>6,957</b>	<b>3,964</b>	<b>3,644</b>	<b>12,260</b>	<b>3,881</b>	<b>1,025</b>	<b>24,773</b>	<b>36,138</b>
Did not earn HSD\GED	NA	NA	554	757	1,810	483	155	<b>3,757</b>	NA
HSD\GED	NA	NA	1,717	1,063	3,940	1,343	297	<b>8,360</b>	NA
Some college -- not attending	NA	NA	1,083	1,032	3,236	1,050	288	<b>6,689</b>	NA
Some college -- attending	NA	NA	288	158	314	92	30	<b>882</b>	NA
AA	NA	NA	180	269	1,746	304	70	<b>2,569</b>	NA
BA+	NA	NA	142	365	1,215	609	185	<b>2,516</b>	NA
<b>Not Citizen</b>	<b>136</b>	<b>965</b>	<b>736</b>	<b>882</b>	<b>3,136</b>	<b>926</b>	<b>21</b>	<b>5,701</b>	<b>6,802</b>
Did not earn HSD\GED	NA	NA	103	429	1,948	598	0	<b>3,078</b>	NA
HSD\GED	NA	NA	401	235	834	125	21	<b>1,616</b>	NA
Some college -- not attending	NA	NA	89	165	59	56	0	<b>369</b>	NA
Some college -- attending	NA	NA	70	53	60	0	0	<b>183</b>	NA
AA	NA	NA	26	0	133	38	0	<b>198</b>	NA
BA+	NA	NA	47	0	102	108	0	<b>257</b>	NA



**Table 17 - Unemployment Rates by Citizenship Status, Age and Educational Attainment (Persons 16 and Over): San Joaquin County**

	<b>16-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-54</b>	<b>55-64</b>	<b>65+</b>	<b>Labor Force (25+)</b>	<b>Total Labor Force</b>
<b>Total</b>	<b>35.4%</b>	<b>19.8%</b>	<b>13.2%</b>	<b>12.6%</b>	<b>10.8%</b>	<b>11.1%</b>	<b>8.0%</b>	<b>11.3%</b>	<b>13.3%</b>
<b>Citizen</b>	<b>36.5%</b>	<b>20.2%</b>	<b>13.5%</b>	<b>13.4%</b>	<b>10.8%</b>	<b>9.9%</b>	<b>8.4%</b>	<b>11.2%</b>	<b>13.5%</b>
Did not earn HSD\GED	NA	NA	24.4%	28.7%	15.4%	10.5%	10.6%	<b>16.6%</b>	NA
HSD\GED	NA	NA	20.8%	13.8%	13.3%	15.4%	13.2%	<b>14.8%</b>	NA
Some college -- not attending	NA	NA	14.4%	18.6%	10.8%	10.2%	9.4%	<b>11.9%</b>	NA
Some college -- attending	NA	NA	12.4%	14.5%	13.1%	35.2%	100.0%	<b>14.5%</b>	NA
AA	NA	NA	4.7%	7.4%	14.1%	7.1%	4.2%	<b>10.0%</b>	NA
BA+	NA	NA	2.7%	5.5%	4.4%	5.5%	5.0%	<b>4.7%</b>	NA
<b>Not Citizen</b>	<b>17.6%</b>	<b>17.8%</b>	<b>12.0%</b>	<b>10.2%</b>	<b>10.9%</b>	<b>21.9%</b>	<b>2.4%</b>	<b>11.7%</b>	<b>12.4%</b>
Did not earn HSD\GED	NA	NA	3.6%	9.4%	12.7%	23.4%	0.0%	<b>11.9%</b>	NA
HSD\GED	NA	NA	20.5%	11.5%	12.8%	17.4%	10.6%	<b>14.1%</b>	NA
Some college -- not attending	NA	NA	17.4%	17.5%	1.9%	14.2%	0.0%	<b>7.3%</b>	NA
Some college -- attending	NA	NA	57.6%	21.9%	19.2%	NA	NA	<b>27.0%</b>	NA
AA	NA	NA	8.5%	0.0%	11.3%	24.4%	NA	<b>9.8%</b>	NA
BA+	NA	NA	11.1%	0.0%	4.6%	27.2%	0.0%	<b>7.1%</b>	NA



**Table 18 — Labor Force by Age, Disability Status, and Educational Attainment (Persons 16 and over)**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>12,845</b>	<b>39,914</b>	<b>35,623</b>	<b>35,926</b>	<b>142,152</b>	<b>43,314</b>	<b>13,045</b>	<b>270,061</b>	<b>322,820</b>
<b>No Reported Disability</b>	<b>12,679</b>	<b>38,263</b>	<b>34,304</b>	<b>34,888</b>	<b>134,964</b>	<b>39,060</b>	<b>10,530</b>	<b>253,746</b>	<b>304,688</b>
Did not earn HSD\GED	NA	NA	5,041	7,119	25,287	6,305	1,497	<b>45,249</b>	NA
HSD\GED	NA	NA	9,739	9,355	34,605	8,355	2,032	<b>64,085</b>	NA
Some college -- not attending	NA	NA	7,743	6,136	31,116	9,599	2,178	<b>56,772</b>	NA
Some college -- attending	NA	NA	2,266	1,276	2,534	220	30	<b>6,327</b>	NA
AA	NA	NA	4,071	3,893	12,747	3,982	1,490	<b>26,184</b>	NA
BA+	NA	NA	5,445	7,109	28,675	10,598	3,303	<b>55,130</b>	NA
<b>At Least One Disability</b>	<b>167</b>	<b>1,651</b>	<b>1,319</b>	<b>1,038</b>	<b>7,187</b>	<b>4,255</b>	<b>2,515</b>	<b>16,315</b>	<b>18,132</b>
Did not earn HSD\GED	NA	NA	75	74	1,729	839	505	<b>3,223</b>	NA
HSD\GED	NA	NA	481	363	1,550	1,057	413	<b>3,864</b>	NA
Some college -- not attending	NA	NA	275	345	2,013	1,070	966	<b>4,669</b>	NA
Some college -- attending	NA	NA	172	56	174	42	0	<b>443</b>	NA
AA	NA	NA	51	113	823	453	166	<b>1,606</b>	NA
BA+	NA	NA	265	86	898	794	466	<b>2,509</b>	NA

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS



**Table 19 — Unemployed Labor Force by Age, Disability Status, and Educational Attainment (Persons 16 and over): San Joaquin County**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>4,544</b>	<b>7,922</b>	<b>4,700</b>	<b>4,526</b>	<b>15,395</b>	<b>4,807</b>	<b>1,046</b>	<b>30,474</b>	<b>42,939</b>
<b>No Reported Disability</b>	<b>4,439</b>	<b>7,442</b>	<b>4,353</b>	<b>4,259</b>	<b>13,756</b>	<b>3,891</b>	<b>729</b>	<b>26,988</b>	<b>38,869</b>
Did not earn HSD\GED	NA	NA	657	1,122	3,318	870	111	<b>6,079</b>	NA
HSD\GED	NA	NA	1,852	1,151	4,423	1,209	249	<b>8,883</b>	NA
Some college -- not attending	NA	NA	1,108	1,197	2,761	951	114	<b>6,132</b>	NA
Some college -- attending	NA	NA	358	211	315	83	30	<b>996</b>	NA
AA	NA	NA	207	213	1,664	272	70	<b>2,427</b>	NA
BA+	NA	NA	172	365	1,274	505	154	<b>2,471</b>	NA
<b>At Least One Disability</b>	<b>105</b>	<b>480</b>	<b>346</b>	<b>266</b>	<b>1,640</b>	<b>916</b>	<b>317</b>	<b>3,486</b>	<b>4,070</b>
Did not earn HSD\GED	NA	NA	0	63	439	211	43	<b>756</b>	NA
HSD\GED	NA	NA	267	147	351	259	69	<b>1,092</b>	NA
Some college -- not attending	NA	NA	63	0	534	154	174	<b>925</b>	NA
Some college -- attending	NA	NA	0	0	59	10	0	<b>69</b>	NA
AA	NA	NA	0	56	214	70	0	<b>340</b>	NA
BA+	NA	NA	16	0	43	212	31	<b>303</b>	NA

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS



**Table 20 — Labor Force by Disability Status, Age, and Educational Attainment: Unemployment Rates**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>35.4%</b>	<b>19.8%</b>	<b>13.2%</b>	<b>12.6%</b>	<b>10.8%</b>	<b>11.1%</b>	<b>8.0%</b>	<b>11.3%</b>	<b>13.3%</b>
<b>No Reported Disability</b>	<b>35.0%</b>	<b>19.5%</b>	<b>12.7%</b>	<b>12.2%</b>	<b>10.2%</b>	<b>10.0%</b>	<b>6.9%</b>	<b>10.6%</b>	<b>12.8%</b>
Did not earn HSD\GED	NA	NA	13.0%	15.8%	13.1%	13.8%	7.4%	<b>13.4%</b>	NA
HSD\GED	NA	NA	19.0%	12.3%	12.8%	14.5%	12.2%	<b>13.9%</b>	NA
Some college -- not attending	NA	NA	14.3%	19.5%	8.9%	9.9%	5.3%	<b>10.8%</b>	NA
Some college -- attending	NA	NA	15.8%	16.5%	12.4%	37.6%	100.0%	<b>15.7%</b>	NA
AA	NA	NA	5.1%	5.5%	13.1%	6.8%	4.7%	<b>9.3%</b>	NA
BA+	NA	NA	3.2%	5.1%	4.4%	4.8%	4.7%	<b>4.5%</b>	NA
<b>At Least One Disability</b>	<b>63.0%</b>	<b>29.1%</b>	<b>26.3%</b>	<b>25.7%</b>	<b>22.8%</b>	<b>21.5%</b>	<b>12.6%</b>	<b>21.4%</b>	<b>22.4%</b>
Did not earn HSD\GED	NA	NA	NA	84.8%	25.4%	25.1%	8.6%	<b>23.5%</b>	NA
HSD\GED	NA	NA	55.4%	40.6%	22.6%	24.5%	16.7%	<b>28.3%</b>	NA
Some college -- not attending	NA	NA	23.0%	NA	26.5%	14.4%	18.0%	<b>19.8%</b>	NA
Some college -- attending	NA	NA	NA	NA	34.2%	23.0%	NA	<b>15.6%</b>	NA
AA	NA	NA	NA	49.6%	26.0%	15.5%	NA	<b>21.2%</b>	NA
BA+	NA	NA	6.2%	NA	4.8%	26.7%	6.7%	<b>12.1%</b>	NA

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS



**Table 21 — Labor Force by Age, Veteran Status, and Educational Attainment (Persons 16 and over) San Joaquin County**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>12,845</b>	<b>39,914</b>	<b>35,623</b>	<b>35,926</b>	<b>142,152</b>	<b>43,314</b>	<b>13,045</b>	<b>270,061</b>	<b>322,820</b>
<b>Not Veterans</b>	<b>11,778</b>	<b>39,417</b>	<b>34,958</b>	<b>34,456</b>	<b>135,559</b>	<b>39,585</b>	<b>10,767</b>	<b>255,324</b>	<b>306,519</b>
Did not earn HSD\GED	NA	NA	5,116	7,194	26,695	6,886	1,901	<b>47,790</b>	NA
HSD\GED	NA	NA	9,977	9,064	34,409	8,868	1,993	<b>64,312</b>	NA
Some college -- not attending	NA	NA	7,732	6,010	30,872	9,382	2,556	<b>56,552</b>	NA
Some college -- attending	NA	NA	2,419	1,309	2,524	236	0	<b>6,488</b>	NA
AA	NA	NA	4,077	3,873	12,611	3,725	1,193	<b>25,479</b>	NA
BA+	NA	NA	5,638	7,005	28,449	10,488	3,124	<b>54,704</b>	NA
<b>Veterans</b>	<b>0</b>	<b>496</b>	<b>665</b>	<b>1,471</b>	<b>6,592</b>	<b>3,730</b>	<b>2,279</b>	<b>14,736</b>	<b>15,233</b>
Did not earn HSD\GED	NA	NA	0	0	322	259	101	<b>682</b>	NA
HSD\GED	NA	NA	243	654	1,746	543	451	<b>3,637</b>	NA
Some college -- not attending	NA	NA	286	471	2,257	1,288	587	<b>4,889</b>	NA
Some college -- attending	NA	NA	19	23	184	26	30	<b>282</b>	NA
AA	NA	NA	45	132	959	711	464	<b>2,311</b>	NA
BA+	NA	NA	72	190	1,124	904	645	<b>2,935</b>	NA

Source: Applied Development Economics ,based on US Census ACS Public Use Microdata 2012-2014 from iPUMS



**Table 22 — Unemployed Labor Force by Age, Veteran Status, and Educational Attainment (Persons 16 and over) San Joaquin County**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>4,544</b>	<b>7,922</b>	<b>4,700</b>	<b>4,526</b>	<b>15,395</b>	<b>4,807</b>	<b>1,046</b>	<b>30,474</b>	<b>42,939</b>
<b>Not Veterans</b>	<b>4,155</b>	<b>7,922</b>	<b>4,645</b>	<b>4,232</b>	<b>15,072</b>	<b>4,397</b>	<b>738</b>	<b>29,083</b>	<b>41,160</b>
Did not earn HSD\GED	NA	NA	657	1,185	3,738	1,035	135	<b>6,750</b>	NA
HSD\GED	NA	NA	2,064	1,242	4,729	1,369	226	<b>9,630</b>	NA
Some college -- not attending	NA	NA	1,172	982	3,191	987	179	<b>6,510</b>	NA
Some college -- attending	NA	NA	358	188	374	67	0	<b>986</b>	NA
AA	NA	NA	207	269	1,764	298	21	<b>2,559</b>	NA
BA+	NA	NA	188	365	1,276	641	178	<b>2,648</b>	NA
<b>Veterans</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>294</b>	<b>324</b>	<b>410</b>	<b>308</b>	<b>1,391</b>	<b>1,391</b>
Did not earn HSD\GED	NA	NA	0	0	20	46	20	<b>85</b>	NA
HSD\GED	NA	NA	55	56	44	99	92	<b>346</b>	NA
Some college -- not attending	NA	NA	0	215	104	119	109	<b>547</b>	NA
Some college -- attending	NA	NA	0	23	0	26	30	<b>79</b>	NA
AA	NA	NA	0	0	115	44	49	<b>208</b>	NA
BA+	NA	NA	0	0	41	76	8	<b>125</b>	NA

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS



**Table 23 — Labor Force by Veteran Status, Age, and Educational Attainment: Unemployment Rates San Joaquin County**

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
<b>Total</b>	<b>35.4%</b>	<b>19.8%</b>	<b>13.2%</b>	<b>12.6%</b>	<b>10.8%</b>	<b>11.1%</b>	<b>8.0%</b>	<b>11.3%</b>	<b>13.3%</b>
<b>Not Veterans</b>	<b>35.3%</b>	<b>20.1%</b>	<b>13.3%</b>	<b>12.3%</b>	<b>11.1%</b>	<b>11.1%</b>	<b>6.9%</b>	<b>11.4%</b>	<b>13.4%</b>
Did not earn HSD\GED	NA	NA	12.8%	16.5%	14.0%	15.0%	7.1%	<b>14.1%</b>	NA
HSD\GED	NA	NA	20.7%	13.7%	13.7%	15.4%	11.3%	<b>15.0%</b>	NA
Some college -- not attending	NA	NA	15.2%	16.3%	10.3%	10.5%	7.0%	<b>11.5%</b>	NA
Some college -- attending	NA	NA	14.8%	14.4%	14.8%	28.2%	NA	<b>15.2%</b>	NA
AA	NA	NA	5.1%	6.9%	14.0%	8.0%	1.8%	<b>10.0%</b>	NA
BA+	NA	NA	3.3%	5.2%	4.5%	6.1%	5.7%	<b>4.8%</b>	NA
<b>Veterans</b>	<b>NA</b>	<b>0.0%</b>	<b>8.3%</b>	<b>20.0%</b>	<b>4.9%</b>	<b>11.0%</b>	<b>13.5%</b>	<b>9.4%</b>	<b>9.1%</b>
Did not earn HSD\GED	NA	NA	NA	NA	6.1%	17.8%	19.4%	<b>12.5%</b>	NA
HSD\GED	NA	NA	22.6%	8.6%	2.5%	18.2%	20.4%	<b>9.5%</b>	NA
Some college -- not attending	NA	NA	NA	45.5%	4.6%	9.2%	18.6%	<b>11.2%</b>	NA
Some college -- attending	NA	NA	NA	100.0%	NA	100.0%	100.0%	<b>28.0%</b>	NA
AA	NA	NA	NA	NA	12.0%	6.2%	10.6%	<b>9.0%</b>	NA
BA+	NA	NA	NA	NA	3.6%	8.4%	1.2%	<b>4.3%</b>	NA

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS



**Table 24 — Employed and Unemployed Labor Force By College Degree Status and Economic Sector**

	College Degree		Unemp	UER	No College Degree		Unemployed	UER
	Full-Time	Part-Time			Full-Time	Part-Time		
<b>Total</b>	<b>59,843</b>	<b>25,675</b>	<b>6,625</b>	<b>7.2%</b>	<b>119,204</b>	<b>75,158</b>	<b>36,315</b>	<b>15.7%</b>
11 Agriculture	1,265	608	171	8.4%	7,206	5,716	2,946	18.6%
21 Mining	196	14	0	0.0%	260	24	20	6.7%
22 Utilities	483	94	0	0.0%	1,310	7	33	2.5%
23 Construction	1,807	1,180	139	4.4%	11,600	4,360	2,421	13.2%
31 Manufacturing	4,863	645	510	8.5%	16,955	4,380	3,365	13.6%
42 Wholesale	1,967	457	56	2.3%	6,515	2,251	1,046	10.7%
43 Retail	4,183	2,704	947	12.1%	15,065	12,244	3,316	10.8%
48 Transportation	1,493	413	117	5.8%	6,078	2,018	763	8.6%
49 Warehousing	488	330	82	9.1%	3,498	1,448	722	12.7%
51 Information	1,562	186	164	8.6%	2,209	578	372	11.8%
52 Finance	3,235	597	235	5.8%	3,519	943	809	15.4%
53 Real Estate	1,330	441	151	7.9%	1,534	1,332	507	15.0%
54 Professional Technical	5,502	1,916	310	4.0%	3,484	1,809	765	12.6%
55 MCE	89	0	0	0.0%	192	0	0	0.0%
56 Admin Support	1,005	839	469	20.3%	5,893	4,916	2,203	16.9%
56 Waste Mgt	21	23	0	0.0%	1,044	394	52	3.5%
61 Education	8,477	6,195	719	4.7%	3,158	5,188	1,038	11.1%
62 Health	12,372	5,475	973	5.2%	11,649	8,527	3,171	13.6%
71 Arts, Entertainmnt, etc	493	606	98	8.2%	1,122	2,217	723	17.8%
72 Accommodations	169	170	35	9.3%	733	789	165	9.8%
72 Food Services	1,036	958	253	11.3%	5,369	9,988	2,392	13.5%
81 Other Services	1,773	1,216	138	4.4%	5,491	4,643	1,024	9.2%
92 Public Sector	5,915	508	479	6.9%	4,323	1,034	411	7.1%
98 Military	120	100	17	7.1%	998	349	57	4.1%
99 Unemployed	0	0	562	0.0%	0	0	7,994	0

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS



# CONCLUSION

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At 1.4 percent a year, jobs in San Joaquin County is expected to grow modestly from now to 2025, although analysts project a number of sectors (Health, Logistics, and Administrative Support) to exceed this overall annual growth rate. However, qualified workers are in short supply for certain key job categories. Based on the analysis presented in this report and discussions with key employers and workforce training organizations, the following can be identified as potential priorities for additional training efforts.

- Medical Technicians
- Electricians
- Maintenance Mechanics
- Ability to use computer operated processing controls and instruments (and related English competency)
- Workers with supervisory and management skills
- Business skills



# APPENDIX

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Below are a number of tables that are organized in two parts. First, we present employment projections for a number of detailed industries organized by various industry clusters and sub-clusters (Appendix Table 1 through Appendix Table 12). In Appendix Table 13 through Appendix Table 25, we present additional labor force trends data for San Joaquin County. Among other things, in Appendix Table 13 through Appendix Table 19, we present data on labor force trends by various demographic attributes (race, gender, disability status, and veteran status) cross-tabbed by age and educational attainment. Starting with Appendix Table 20, we also organized San Joaquin County's labor force by broad and specific occupations, cross-tabbed by educational attainment, as well as by managerial status.

## DETAILED INDUSTRY CLUSTER EMPLOYMENT PROJECTIONS

**Appendix Table 1- Employment Projections by Industry Clusters: Agriculture: Distribution  
San Joaquin County**

NAICS	Industry	2015 Employment	2025p Employment	15-'25 Chg.	15-'25 CAGR
	<b>Total</b>	<b>23,005</b>	<b>28,365</b>	<b>5,360</b>	<b>2.1%</b>
493110	General Warehousing and Storage	4,855	6,185	1,330	2.5%
484121	General Freight Trucking, Long-Distance, Truckload	2,607	3,604	997	3.3%
424410	General Line Grocery Merchant Wholesalers	1,557	2,360	803	4.2%
484220	Specialized Freight (except Used Goods) Trucking, Local	1,490	1,848	358	2.2%
424910	Farm Supplies Merchant Wholesalers	731	1,040	309	3.6%
424820	Wine and Distilled Alcoholic Beverage Merchant Wholesalers	347	618	272	6.0%
424490	Other Grocery and Related Products Merchant Wholesalers	625	841	216	3.0%
484230	Specialized Freight (except Used Goods) Trucking, Long-Distance	415	623	207	4.1%
445110	Supermarkets and Other Grocery (except Convenience) Stores	3,823	3,998	175	0.4%
424480	Fresh Fruit and Vegetable Merchant Wholesalers	724	883	160	2.0%
488510	Freight Transportation Arrangement	246	392	146	4.8%
482110	Rail transportation	539	651	113	1.9%
484110	General Freight Trucking, Local	1,278	1,378	100	0.8%
424450	Confectionery Merchant Wholesalers	199	288	89	3.8%
488210	Support Activities for Rail Transportation	254	333	78	2.7%
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	421	489	68	1.5%



<b>NAICS</b>	<b>Industry</b>	<b>2015 Employment</b>	<b>2025p Employment</b>	<b>15-'25 Chg.</b>	<b>15-'25 CAGR</b>
493190	Other Warehousing and Storage	81	145	64	6.0%
445292	Confectionery and Nut Stores	75	132	57	5.8%
484122	General Freight Trucking, Long-Distance, Less Than Truckload	889	923	34	0.4%
488320	Marine Cargo Handling	54	81	27	4.1%
424510	Grain and Field Bean Merchant Wholesalers	54	75	22	3.5%
488991	Packing and Crating	53	72	19	3.2%
445210	Meat Markets	204	222	18	0.0%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	87	103	16	0.0%
424590	Other Farm Product Raw Material Merchant Wholesalers	45	54	9	0.0%
424420	Packaged Frozen Food Merchant Wholesalers	84	87	3	0.0%
488190	Other Support Activities for Air Transportation	125	127	2	0.2%
424520	Livestock Merchant Wholesalers	17	19	2	1.3%
445120	Convenience Stores	150	151	1	0.1%
424460	Fish and Seafood Merchant Wholesalers	<10	<10		
445220	Fish and Seafood Markets	<10	<10		
481112	Scheduled Freight Air Transportation	<10	<10		
481212	Nonscheduled Chartered Freight Air Transportation	<10	<10		
483212	Inland Water Passenger Transportation	<10	<10		
488390	Other Support Activities for Water Transportation	<10	<10		
445291	Baked Goods Stores	12	3	-9	-12.8%
445310	Beer, Wine, and Liquor Stores	205	186	-19	-1.0%
493120	Refrigerated Warehousing and Storage	265	240	-25	-1.0%
424810	Beer and Ale Merchant Wholesalers	39	3	-36	-22.5%
488310	Port and Harbor Operations	224	186	-38	-1.8%
424440	Poultry and Poultry Product Merchant Wholesalers	55	3	-52	-25.3%
424470	Meat and Meat Product Merchant Wholesalers	78	20	-58	-12.8%
445299	All Other Specialty Food Stores	104	3	-101	-29.8%

Source: ADE, based on EMSI 2015 Q4 QCEW and Non QCEW Industry Employment Trends (note: p = projections / CAGR = compound annual growth rate)



**Appendix Table 2 - Employment Projections by Industry Clusters: Agriculture: Processing San Joaquin County**

NAICS	Industry	2015 Employment	2025p Employment	'15-'25 Chg.	15-'25 CAGR
	<b>Total</b>	<b>9,169</b>	<b>9,363</b>	<b>194</b>	<b>0.2%</b>
311999	All Other Miscellaneous Food Manufacturing	708	1,097	389	4.5%
311612	Meat Processed from Carcasses	1,018	1,274	256	2.3%
311221	Wet Corn Milling	425	675	250	4.7%
312130	Wineries	1,714	1,939	225	1.2%
312111	Soft Drink Manufacturing	169	273	104	4.9%
311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing	127	213	85	5.3%
327213	Glass Container Manufacturing	333	388	55	1.5%
311830	Tortilla Manufacturing	122	158	36	2.6%
311119	Other Animal Food Manufacturing	191	220	29	1.4%
311824	Dry Pasta, Dough, and Flour Mixes Manufacturing from Purchased Flour	28	43	15	4.4%
332439	Other Metal Container Manufacturing	66	78	12	1.7%
311421	Fruit and Vegetable Canning	1,255	1,257	3	0.0%
321113	Sawmills	<10	<10		
311941	Mayonnaise, Dressing, and other Prepared Sauce Mfg	<10	<10		
311919	Other Snack Food Manufacturing	<10	<10		
311613	Rendering and Meat Byproduct Processing	<10	<10		
311611	Animal (except Poultry) Slaughtering	<10	<10		
311520	Ice Cream and Frozen Dessert Manufacturing	<10	<10		
311511	Fluid Milk Manufacturing	<10	<10		
311212	Rice Milling	<10	<10		
321920	Wood Container and Pallet Manufacturing	146	137	-8	-0.6%
311340	Nonchocolate Confectionery Manufacturing	13	3	-10	-13.5%
311352	Confectionery Manuf. from Purchased Chocolate	13	3	-10	-13.9%
312113	Ice Manufacturing	20	3	-17	-17.1%
326111	Plastics Bag and Pouch Manufacturing	34	17	-17	-6.5%
311811	Retail Bakeries	30	3	-27	-20.5%
311411	Frozen Fruit, Juice, and Vegetable Manufacturing	42	3	-39	-23.1%
311423	Dried and Dehydrated Food Manufacturing	298	257	-41	-1.5%
322211	Corrugated and Solid Fiber Box Manufacturing	254	201	-53	-2.3%
311615	Poultry Processing	110	53	-57	-7.0%
311812	Commercial Bakeries	695	632	-63	-1.0%
311111	Dog and Cat Food Manufacturing	222	132	-90	-5.1%
326160	Plastics Bottle Manufacturing	115	18	-97	-17.0%
311513	Cheese Manufacturing	249	134	-115	-6.0%
311230	Breakfast Cereal Manufacturing	305	51	-254	-16.4%
311911	Roasted Nuts and Peanut Butter Manufacturing	443	76	-367	-16.1%

Source: Applied Development Economics, based on EMSI



**Appendix Table 3 - Employment Projections By Industry Clusters: Agriculture: Production  
San Joaquin County**

NAICS	Industry	2015 Employment	2025p Employment	'15-'25 Chg.	15-'25 CAGR
	<b>Total</b>	<b>8,381</b>	<b>8,031</b>	<b>-350</b>	<b>-0.4%</b>
113210	Forest Nurseries and Gathering of Forest Products	<10	<10		
111000	Crop Production	6,979	6,809	-170	-0.2%
112000	Animal Production and Aquaculture	1,399	1,219	-180	-1.4%

Source: Applied Development Economics, based on EMSI

**Appendix Table 4 - Employment Projections By Industry Clusters: Agriculture: Support San  
Joaquin County**

NAICS	Industry	2015 Employment	2025p Employment	'15-'25 Chg.	15-'25 CAGR
	<b>Total</b>	<b>20,252</b>	<b>22,548</b>	<b>2,296</b>	<b>1.1%</b>
561320	Temporary Help Services	5,119	7,027	1,908	3.2%
541614	Process, Physical Distribution, and Logistics Consulting Services	169	313	144	6.4%
541940	Veterinary Services	491	635	143	2.6%
541620	Environmental Consulting Services	190	310	120	5.0%
115112	Soil Preparation, Planting, and Cultivating	465	586	120	2.3%
221310	Water Supply and Irrigation Systems	204	311	107	4.3%
115116	Farm Management Services	324	404	80	2.2%
326299	All Other Rubber Product Manufacturing	256	333	77	2.7%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	103	171	68	5.2%
115310	Support Activities for Forestry	79	142	64	6.1%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	541	600	59	1.0%
115115	Farm Labor Contractors and Crew Leaders	4,352	4,407	55	0.1%
423830	Industrial Machinery and Equipment Merchant Wholesalers	481	530	49	1.0%
115210	Support Activities for Animal Production	147	192	45	2.7%
541613	Marketing Consulting Services	52	93	41	6.0%
541890	Other Services Related to Advertising	129	167	38	2.6%
562219	Other Nonhazardous Waste Treatment and Disposal	58	93	35	4.8%
541690	Other Scientific and Technical Consulting Services	274	308	35	1.2%
541370	Surveying and Mapping (except Geophysical) Services	3	15	12	17.7%
333111	Farm Machinery and Equipment Manufacturing	121	129	8	0.7%



NAICS	Industry	2015 Employment	2025p Employment	'15-'25 Chg.	15-'25 CAGR
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	385	393	8	0.2%
332420	Metal Tank (Heavy Gauge) Manufacturing	0	3	3	100.0%
333993	Packaging Machinery Manufacturing	0	3	3	100.0%
326291	Rubber Product Manufacturing for Mechanical Use	<10	<10		
333911	Pump and Pumping Equipment Manufacturing	<10	<10		
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	<10	<10		
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	<10	<10		
541360	Geophysical Surveying and Mapping Services	<10	<10		
541820	Public Relations Agencies	6	6	0	0.0%
541870	Advertising Material Distribution Services	6	6	0	0.0%
551112	Offices of Other Holding Companies	<10	<10		
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	29	27	-1	-0.5%
541850	Outdoor Advertising	6	3	-3	-6.7%
551111	Offices of Bank Holding Companies	3	0	-3	-100.0%
541810	Advertising Agencies	16	6	-10	-9.2%
541840	Media Representatives	20	6	-14	-11.3%
115113	Crop Harvesting, Primarily by Machine	159	144	-15	-1.0%
423840	Industrial Supplies Merchant Wholesalers	199	183	-16	-0.8%
541380	Testing Laboratories	108	91	-17	-1.7%
444210	Outdoor Power Equipment Stores	41	23	-18	-5.5%
325314	Fertilizer (Mixing Only) Manufacturing	46	24	-22	-6.1%
562920	Materials Recovery Facilities	28	3	-25	-20.0%
444220	Nursery, Garden Center, and Farm Supply Stores	161	133	-28	-1.9%
561710	Exterminating and Pest Control Services	136	86	-50	-4.5%
325312	Phosphatic Fertilizer Manufacturing	144	92	-52	-4.4%
115114	Postharvest Crop Activities (except Cotton Ginning)	1,940	1,881	-58	-0.3%
332311	Prefabricated Metal Building and Component Manufacturing	179	109	-70	-4.8%
561110	Office Administrative Services	326	250	-76	-2.6%
551114	Corporate, Subsidiary, and Regional Managing Offices	1,698	1,609	-89	-0.5%
237110	Water and Sewer Line and Related Structures Construction	168	62	-106	-9.4%
522292	Real Estate Credit	123	3	-120	-31.0%
561730	Landscaping Services	750	614	-137	-2.0%







**Appendix Table 5 - Employment Projections By Industry Clusters: Energy**

Energy Cluster and Sub-Clusters	NAICS	Industry	2015 Employment	2025p. Employment	15-'25 Chg.	15-'25 CAGR
		<b>Total</b>	<b>11,301</b>	<b>13,199</b>	<b>1,898</b>	<b>1.6%</b>
Energy Core--Petroleum	211112	Natural Gas Liquid Extraction	<10	<10		
Energy Core--Petroleum	213111	Drilling Oil and Gas Wells	<10	<10		
Energy Core--Petroleum	324110	Petroleum Refineries	<10	<10		
Energy Core-- Petroleum Distribution	424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	160	227	67	3.6%
Energy Core-- Petroleum Distribution	424710	Petroleum Bulk Stations and Terminals	31	60	29	6.7%
Energy Core-- Petroleum Distribution	486210	Pipeline Transportation of Natural Gas	23	28	5	1.8%
Energy Core-- Petroleum Distribution	486110	Pipeline Transportation of Crude Oil	0	3	3	100.0%
Energy Core-- Petroleum Distribution	486910	Pipeline Transportation of Refined Petroleum Products	41	37	-4	-1.1%
Energy Core-- Power Generation	221210	Natural Gas Distribution	1,180	1,191	10	0.1%
Energy Core-- Power Generation	221112	Fossil Fuel Electric Power Generation	<10	<10		
Energy Core-- Alt Energy Production	238160	Roofing Contractors	287	237	-50	-1.9%
Energy Core-- Alt Energy Production	237110	Water and Sewer Line and Related Structures Construction	168	62	-106	-9.4%
Energy Core-- Alt Energy Distribution	423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	301	518	217	5.6%
Energy Core-- Alt Energy Distribution	423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	177	198	21	1.1%
Energy Core-- Alt Energy Distribution	423690	Other Electronic Parts and Equipment Merchant Wholesalers	37	40	3	0.7%
Energy Core-- Energy Efficiency	238310	Drywall and Insulation Contractors	997	1,538	540	4.4%
Energy Core-- Energy Efficiency	238220	Plumbing, Heating, and Air-Conditioning Contractors	1,159	1,376	217	1.7%
Energy Core-- Energy Efficiency	238210	Electrical Contractors and Other Wiring Installation Contractors	1,249	1,274	25	0.2%
Energy Core--Energy Equipment Mfg	333611	Turbine and Turbine Generator Set Units Manufacturing	<10	<10		



<b>Energy Cluster and Sub-Clusters</b>	<b>NAICS</b>	<b>Industry</b>	<b>2015 Employment</b>	<b>2025p. Employment</b>	<b>15-'25 Chg.</b>	<b>15-'25 CAGR</b>
Energy Core--Energy Equipment Mfg	334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	<10	<10		
Energy Core--Energy Equipment Mfg	335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing	<10	<10		
Energy Core--Energy Equipment Mfg	335129	Other Lighting Equipment Manufacturing	<10	<10		
Energy related-- Manufacturing	322299	All Other Converted Paper Product Manufacturing	193	220	27	1.3%
Energy related-- Manufacturing	334413	Semiconductor and Related Device Manufacturing	50	67	18	3.1%
Energy related-- Manufacturing	311613	Professional, Scientific and Technical	<10	<10		
Energy related-- Services	811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	541	600	59	1.0%
Energy related-- Services	523910	Miscellaneous Intermediation	3	15	12	17.4%
Energy related-- Services	533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	22	26	4	1.6%
Energy related-- Services	811219	Other Electronic and Precision Equipment Repair and Maintenance	11	12	1	1.2%
Energy related-- Services	523999	Miscellaneous Financial Investment Activities	<10	<10		
Energy related-- Research	541	Prof., Tech., Scien.	4,640	5,441	801	1.6%

Source: ADE, based on EMSI 2015 Q4 QCEW and Non QCEW Industry Employment Trends (note: p = projections / CAGR = compound annual growth rate)



**Appendix Table 6 - Employment Projections By Industry Clusters: Health and Wellness:  
Delivery San Joaquin County**

NAICS	Industry	2015 Employment	2025p. Employment	15-'25 Chg.	15-'25 CAGR
	<b>Total</b>	<b>25,092</b>	<b>29,036</b>	<b>3,944</b>	<b>1.5%</b>
621610	Home Health Care Services	2,276	3,770	1,494	5.2%
621491	HMO Medical Centers	1,671	2,630	959	4.6%
623110	Nursing Care Facilities (Skilled Nursing Facilities)	3,195	3,970	775	2.2%
621111	Offices of Physicians (except Mental Health Specialists)	3,319	3,855	536	1.5%
621210	Offices of Dentists	1,691	2,011	320	1.7%
623311	Continuing Care Retirement Communities	558	796	238	3.6%
621910	Ambulance Services	404	618	214	4.3%
621420	Outpatient Mental Health and Substance Abuse Centers	225	386	162	5.6%
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists	368	526	158	3.6%
621492	Kidney Dialysis Centers	305	414	109	3.1%
622210	Psychiatric and Substance Abuse Hospitals	109	211	102	6.9%
622310	Specialty (except Psychiatric and Substance Abuse) Hospitals	69	149	80	8.0%
903622	Offices of Mental Health Practitioners (except Physicians)	1,483	1,548	65	0.4%
621330	Medical Laboratories	102	153	51	4.1%
624310	Offices of Optometrists	498	543	45	0.9%
621511	Vocational Rehabilitation Services	93	122	29	2.7%
621320	Residential Mental Health and Substance Abuse Facilities	190	211	21	1.1%
623220	Diagnostic Imaging Centers	301	319	19	0.6%
621512	Blood and Organ Banks	62	78	16	2.3%
621991	Assisted Living Facilities for the Elderly	53	68	15	2.6%
623312	Offices of Physicians, Mental Health Specialists	847	861	15	0.2%
621112	Offices of Podiatrists	31	36	5	1.7%
621391	All Other Outpatient Care Centers	34	34	0	0.1%
621498	Offices of Chiropractors	42	41	(2)	-0.4%
621310	Freestanding Ambulatory Surgical and Emergency Centers	163	139	(24)	-1.6%
621493	Family Planning Centers	83	36	(47)	-7.9%
623990	Other Residential Care Facilities	76	3	(73)	-27.6%
621410	Residential Intellectual and Developmental Disability Facilities	84	3	(81)	-28.3%
623210	Residential Intellectual and Developmental Disability Facilities	469	316	(154)	-3.9%
622110	Residential Intellectual and Developmental Disability Facilities	5,091	4,133	(958)	-2.1%

Source: ADE, based on EMSI 2015 Q4 QCEW and Non QCEW Industry Employment Trends (note: p = projections / CAGR = compound annual growth rate)







**Appendix Table 6 - Employment Projections By Industry Clusters: Health and Wellness: All Others San Joaquin County**

<b>Health and Wellness: All Others</b>	<b>NAICS</b>	<b>Industry</b>	<b>2015 Employment</b>	<b>2025p. Employment</b>	<b>15-'25 Chg.</b>	<b>15-'25 CAGR</b>
		<b>Total</b>	<b>10,559</b>	<b>13,934</b>	<b>3,375</b>	<b>2.8%</b>
Health Care-- Wellness and Fitness	446110	Pharmacies and Drug Stores	1,312	1,520	208	1.5%
Health Care-- Wellness and Fitness	621399	Offices of All Other Miscellaneous Health Practitioners	104	154	50	4.0%
Health Care-- Wellness and Fitness	621999	All Other Miscellaneous Ambulatory Health Care Services	10	14	4	3.5%
Health Care-- Wellness and Fitness	446191	Food (Health) Supplement Stores	83	83	1	0.1%
Health Care-- Wellness and Fitness	446130	Optical Goods Stores	45	46	1	0.2%
Health Care-- Wellness and Fitness	812191	Diet and Weight Reducing Centers	43	37	-6	-1.5%
Health Care-- Wellness and Fitness	532291	Home Health Equipment Rental	16	3	-13	-15.2%
Health Care-- Wellness and Fitness	446199	All Other Health and Personal Care Stores	56	21	-36	-9.5%
Health Care-- Medical devices manufacturing	339113	Surgical Appliance and Supplies Manufacturing	63	78	15	2.2%
Health Care-- Medical devices manufacturing	339112	Surgical and Medical Instrument Manufacturing	3	12	9	14.7%
Health Care-- Medical devices manufacturing	339116	Dental Laboratories	71	49	-23	-3.8%
Health Care-- Supplies and Services	424210	Drugs and Druggists' Sundries Merchant Wholesalers	117	183	66	4.6%
Health Care-- Supplies and Services	423490	Other Professional Equipment and Supplies Merchant Wholesalers	21	38	17	6.0%
Health Care-- Supplies and Services	813212	Voluntary Health Organizations	<10	<10		
Health Care-- Supplies and Services	423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	59	17	-42	-11.5%
Health Care-- Other Services	624120	Services for the Elderly and Persons with Disabilities	6,085	9,321	3,236	4.4%
Health Care-- Other Services	624110	Child and Youth Services	298	333	35	1.1%
Health Care-- Other Services	624229	Other Community Housing Services	36	60	24	5.3%
Health Care-- Other Services	624230	Emergency and Other Relief Services	6	6	0	0.0%
Health Care-- Other Services	624210	Community Food Services	64	63	-1	-0.2%
Health Care-- Other Services	624410	Child Day Care Services	1,342	1,324	-18	-0.1%
Health Care--06 Other Services	624221	Temporary Shelters	39	6	-33	-17.1%
Health Care--06 Other Services	624190	Other Individual and Family Services	682	562	-120	-1.9%

Source: ADE, based on EMSI 2015 Q4 QCEW and Non QCEW Industry Employment Trends (note: p = projections / CAGR = compound annual growth rate)



**Appendix Table 7 - Employment Projections By Industry Clusters: Logistics San Joaquin County**

NAICS	Industry	2015 Employment	2025 p. Employment	15-'25 Chg.	15-'25 CAGR
	<b>Total</b>	<b>15,329</b>	<b>18,898</b>	<b>3,570</b>	<b>2.1%</b>
493110	General Warehousing and Storage	4,855	6,185	1,330	2.5%
484121	General Freight Trucking, Long-Distance, Truckload	2,607	3,604	997	3.3%
484220	Specialized Freight Trucking, Local	1,490	1,848	358	2.2%
484230	Specialized Freight Trucking, Long-Distance	415	623	207	4.1%
488510	Freight Transportation Arrangement	246	392	146	4.8%
541614	Process, Physical Distribution, Logistics Consulting	169	313	144	6.4%
482110	Rail transportation	539	651	113	1.9%
488410	Motor Vehicle Towing	243	352	109	3.8%
484110	General Freight Trucking, Local	1,278	1,378	100	0.8%
488210	Support Activities for Rail Transportation	254	333	78	2.7%
493190	Other Warehousing and Storage	81	145	64	6.0%
488999	All Other Support Activities for Transportation	154	217	64	3.5%
484122	Gen. Freight Truck, Long-Distance, Less Than Truck	889	923	34	0.4%
492110	Couriers and Express Delivery Services	548	578	30	0.5%
488320	Marine Cargo Handling	54	81	27	4.1%
485991	Special Needs Transportation	204	226	21	1.0%
488991	Packing and Crating	53	72	19	3.2%
485999	All Other Transit and Ground Passenger Transp.	11	28	17	9.5%
485113	Bus and Other Motor Vehicle Transit Systems	3	14	11	16.9%
485112	Commuter Rail Systems	92	100	8	0.8%
492210	Local Messengers and Local Delivery	112	116	4	0.4%
488190	Other Support Activities for Air Transportation	125	127	2	0.2%
488390	Other Support Activities for Water Transportation	<10	<10		
488330	Navigational Services to Shipping	<10	<10		
483212	Inland Water Passenger Transportation	<10	<10		
481212	Nonscheduled Chartered Freight Air Transportation	<10	<10		
481112	Scheduled Freight Air Transportation	<10	<10		
493130	Farm Product Warehousing and Storage	13	3	-10	-13.8%
336612	Boat Building	11	0	-11	-100.0%
493120	Refrigerated Warehousing and Storage	265	240	-25	-1.0%
488490	Other Support Activities for Road Transportation	31	3	-28	-20.9%
488310	Port and Harbor Operations	224	186	-38	-1.8%
485410	School and Employee Bus Transportation	117	75	-42	-4.4%
484210	Used Household and Office Goods Moving	79	3	-76	-27.9%
561910	Packaging and Labeling Services	151	67	-84	-7.8%

Source: ADE, based on EMSI 2015 Q4 QCEW and Non QCEW Industry Employment Trends (note: p = projections / CAGR = compound annual growth rate)



**Appendix Table 8 - Employment Projections By Industry Clusters: Manufacturing: All Others  
San Joaquin County**

NAICS	Industry	2015 Employment	2025 p. Employment	15-'25 Chg.	15-'25 CAGR
	<b>Total</b>	<b>8,464</b>	<b>9,026</b>	<b>561</b>	<b>0.6%</b>
327390	Other Concrete Product Manufacturing	473	848	374	6.0%
326199	All Other Plastics Product Manufacturing	438	770	332	5.8%
337110	Wood Kitchen Cabinet and Countertop Manufacturing	592	725	133	2.0%
332312	Fabricated Structural Metal Manufacturing	751	880	129	1.6%
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing	283	407	124	3.7%
336212	Truck Trailer Manufacturing	225	324	99	3.7%
326299	All Other Rubber Product Manufacturing	256	333	77	2.7%
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	308	363	56	1.7%
332323	Ornamental and Architectural Metal Work Manufacturing	73	123	50	5.4%
325211	Plastics Material and Resin Manufacturing	64	113	49	5.8%
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	78	126	48	4.9%
339999	All Other Miscellaneous Manufacturing	37	84	48	8.6%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	246	287	41	1.5%
327331	Concrete Block and Brick Manufacturing	109	148	39	3.1%
332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	237	272	35	1.4%
323113	Commercial Screen Printing	33	61	28	6.4%
336211	Motor Vehicle Body Manufacturing	116	143	27	2.1%
327215	Glass Product Manufacturing Made of Purchased Glass	176	199	23	1.2%
332994	Small Arms, Ordnance, and Ordnance Accessories Manufacturing	14	36	22	9.9%
334111	Electronic Computer Manufacturing	37	58	22	4.7%
331513	Steel Foundries (except Investment)	58	77	18	2.8%
332321	Metal Window and Door Manufacturing	35	50	15	3.7%
333922	Conveyor and Conveying Equipment Manufacturing	11	24	14	8.6%
326130	Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing	3	15	12	17.2%
321911	Wood Window and Door Manufacturing	185	197	12	0.6%
331222	Steel Wire Drawing	16	26	10	5.1%
335313	Switchgear and Switchboard Apparatus Manufacturing	143	152	9	0.6%
339991	Gasket, Packing, and Sealing Device Manufacturing	17	26	9	4.4%
336992	Military Armored Vehicle, Tank, and Tank Component Manufacturing	35	44	9	2.3%
339950	Sign Manufacturing	95	104	8	0.8%
324191	Petroleum Lubricating Oil and Grease Manufacturing	3	11	8	13.5%



NAICS	Industry	2015 Employment	2025 p. Employment	15-'25 Chg.	15-'25 CAGR
332721	Precision Turned Product Manufacturing	26	32	7	2.3%
325520	Adhesive Manufacturing	14	21	6	3.8%
325611	Soap and Other Detergent Manufacturing	72	76	4	0.5%
332420	Metal Tank (Heavy Gauge) Manufacturing	0	3	3	100.0%
333993	Packaging Machinery Manufacturing	0	3	3	100.0%
334310	Audio and Video Equipment Manufacturing	25	26	1	0.3%
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	14	14	0	0.2%
314999	All Other Miscellaneous Textile Product Mills	<10	<10		
322121	Paper (except Newsprint) Mills	<10	<10		
324122	Asphalt Shingle and Coating Materials Manufacturing	<10	<10		
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	<10	<10		
326121	Unlaminated Plastics Profile Shape Manufacturing	<10	<10		
326191	Plastics Plumbing Fixture Manufacturing	<10	<10		
326220	Rubber and Plastics Hoses and Belting Manufacturing	<10	<10		
326291	Rubber Product Manufacturing for Mechanical Use	<10	<10		
333611	Turbine and Turbine Generator Set Units Manufacturing	<10	<10		
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	<10	<10		
333911	Pump and Pumping Equipment Manufacturing	<10	<10		
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	<10	<10		
333991	Power-Driven Handtool Manufacturing	<10	<10		
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing	<10	<10		
334290	Other Communications Equipment Manufacturing	<10	<10		
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	<10	<10		
336111	Automobile Manufacturing	<10	<10		
336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing	<10	<10		
336340	Motor Vehicle Brake System Manufacturing	<10	<10		
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	<10	<10		
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	<10	<10		
337211	Wood Office Furniture Manufacturing	<10	<10		
337214	Office Furniture (except Wood) Manufacturing	<10	<10		
337910	Mattress Manufacturing	<10	<10		
339994	Broom, Brush, and Mop Manufacturing	<10	<10		
333517	Machine Tool Manufacturing	23	22	-1	-0.5%
337127	Institutional Furniture Manufacturing	24	23	-1	-0.5%



<b>NAICS</b>	<b>Industry</b>	<b>2015 Employment</b>	<b>2025 p. Employment</b>	<b>15-'25 Chg.</b>	<b>15-'25 CAGR</b>
325612	Polish and Other Sanitation Good Manufacturing	59	58	-1	-0.2%
321219	Reconstituted Wood Product Manufacturing	3	0	-3	100.0%
321999	All Other Miscellaneous Wood Product Manufacturing	3	0	-3	100.0%
331221	Rolled Steel Shape Manufacturing	3	0	-3	100.0%
336214	Travel Trailer and Camper Manufacturing	3	0	-3	100.0%
337122	Nonupholstered Wood Household Furniture Manufacturing	3	0	-3	100.0%
334416	Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing	22	19	-3	-1.5%
332322	Sheet Metal Work Manufacturing	218	214	-4	-0.2%
326212	Tire Retreading	58	54	-4	-0.7%
336360	Motor Vehicle Seating and Interior Trim Manufacturing	10	3	-7	-11.5%
337212	Custom Architectural Woodwork and Millwork Manufacturing	10	3	-7	-11.5%
333999	All Other Miscellaneous General Purpose Machinery Manufacturing	44	36	-8	-2.0%
323117	Books Printing	12	3	-9	-12.7%
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	12	3	-9	-13.1%
337215	Showcase, Partition, Shelving, and Locker Manufacturing	12	3	-9	-13.1%
337121	Upholstered Household Furniture Manufacturing	13	3	-10	-13.5%
327991	Cut Stone and Stone Product Manufacturing	13	3	-10	-13.7%
336612	Boat Building	11	0	-11	100.0%
327320	Ready-Mix Concrete Manufacturing	138	126	-11	-0.9%
332313	Plate Work Manufacturing	15	3	-12	-14.6%
327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	15	3	-12	-14.8%
325510	Paint and Coating Manufacturing	16	3	-13	-15.5%
332510	Hardware Manufacturing	17	3	-14	-15.8%
339920	Sporting and Athletic Goods Manufacturing	17	3	-14	-15.9%
321992	Prefabricated Wood Building Manufacturing	18	3	-15	-16.3%
332710	Machine Shops	284	269	-15	-0.5%
334419	Other Electronic Component Manufacturing	20	3	-17	-17.2%
333120	Construction Machinery Manufacturing	35	17	-18	-6.8%
325314	Fertilizer (Mixing Only) Manufacturing	46	24	-22	-6.1%
331511	Iron Foundries	63	41	-22	-4.2%
332111	Iron and Steel Forging	32	3	-29	-21.0%
331314	Secondary Smelting and Alloying of Aluminum	65	30	-35	-7.4%
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial	98	61	-37	-4.7%



NAICS	Industry	2015 Employment	2025 p. Employment	15-'25 Chg.	15-'25 CAGR
	Process Variables				
327211	Flat Glass Manufacturing	39	0	-39	-
332996	Fabricated Pipe and Pipe Fitting Manufacturing	49	3	-46	100.0%
321912	Cut Stock, Resawing Lumber, and Planing	222	174	-48	-24.3%
332114	Custom Roll Forming	225	175	-50	-2.4%
325312	Phosphatic Fertilizer Manufacturing	144	92	-52	-2.5%
332311	Prefabricated Metal Building and Component Manufacturing	179	109	-70	-4.4%
321991	Manufactured Home (Mobile Home) Manufacturing	76	0	-76	-4.8%
326140	Polystyrene Foam Product Manufacturing	81	3	-78	-
321214	Truss Manufacturing	99	3	-96	100.0%
323111	Commercial Printing (except Screen and Books)	195	82	-113	-28.1%
327332	Concrete Pipe Manufacturing	192	65	-127	-29.5%
321918	Other Millwork (including Flooring)	157	3	-154	-8.3%
					-10.2%
					-32.7%

Source: Applied Development Economics, based on EMSI

**Appendix Table 9 - Employment Projections By Industry Clusters: Water Flow Technologies San Joaquin County**

NAICS	Industry	2015 Employment	2025 proj. Employment	15-'25 Chg.	15-'25 CAGR
		1,467	1,734	267	1.7%
424910	Farm Supplies Merchant Wholesalers	731	1040	309	3.6%
423830	Industrial Machinery and Equipment Merchant Wholesalers	481	530	49	1.0%
333111	Farm Machinery and Equipment Manufacturing	121	129	8	0.7%
326122	Plastics Pipe and Pipe Fitting Manufacturing	132	32	-100	-13.1%
333911	Pump and Pumping Equipment Manufacturing	<10	<10		

Source: Applied Development Economics, based on EMSI

**Appendix Table 10 - Employment Projections By Industry Clusters: Heavy Construction San Joaquin County**

NAICS	Industry	2015 Employment	2025 p. Employment	15-'25 Chg.	15-'25 CAGR
	<b>Total</b>	<b>1216</b>	<b>814</b>	<b>-402</b>	<b>-3.9%</b>
237990	Other Heavy and Civil Engineering Construction	170	266	97	4.6%
237000	Local govt. heavy cons.	158	170	12	0.7%
237120	Oil and Gas Pipeline and Related Structures Construction	15	19	4	2.6%
237130	Power and Communication Line and Related Structures Construction	23	6	-17	-12.7%



237110	Water and Sewer Line and Related Structures Construction	168	62	-106	-9.4%
237210	Land Subdivision	127	6	-121	-26.3%
237310	Highway, Street, and Bridge Construction	554	284	-270	-6.5%

Source: Applied Development Economics, based on EMSI

**Appendix Table 11 - Employment Projections By Industry Clusters: Accommodations and Food Services, and Retail**

NAICS	Industry	2015 Employment	2025 p. Employment	15-'25 Chg.	15-'25 CAGR
44-45	Retail	26,006	30,471	4,465	1.6%
721	Accommodations	1,068	1,199	131	1.2%
722	Food services	16,701	19,758	3,057	1.7%

Source: Applied Development Economics, based on EMSI

## ADDITIONAL LABOR FORCE TRENDS BY VARIOUS DEMOGRAPHIC CHARACTERISTICS CROSS-TABBED BY AGE AND EDUCATIONAL ATTAINMENT

In Appendix Table 13 through Appendix Table 25, we present additional labor force trends data for San Joaquin County. Among other things, the tables below present data on labor force trends by various demographic attributes (race, gender, disability status, and veteran status) cross-tabbed by age and educational attainment. Starting with Appendix Table 20, we also organized San Joaquin County's labor force by broad and specific occupations, cross-tabbed by educational attainment, as well as by managerial status.



**Appendix Table 12- Population By Age, Race\Ethnicity, and Educational Attainment San Joaquin County**

	<b>0-15</b>	<b>16-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-54</b>	<b>55-64</b>	<b>65+</b>	<b>Total</b>
<b>Total</b>	<b>177,304</b>	<b>43,359</b>	<b>53,205</b>	<b>46,781</b>	<b>47,126</b>	<b>184,006</b>	<b>75,461</b>	<b>80,758</b>	<b>708,000</b>
White	38,805	10,837	14,378	13,942	13,577	66,966	38,085	46,911	243,502
Did not earn HSD\GED	32,422	6,685	1,188	1,269	1,318	5,564	2,583	5,929	56,960
HSD\GED		1,899	5,052	3,715	3,456	17,869	10,028	14,052	56,072
Some college -- not attending		126	2,478	3,032	2,727	18,439	10,727	12,613	50,140
Some college -- attending	15	2,127	2,971	1,315	409	1,477	194	80	8,589
AA			1,376	1,370	2,099	7,064	4,354	4,517	20,780
BA+			1,312	3,241	3,568	16,553	10,199	9,721	44,594
NA	6,367								6,367
Latino	92,970	20,796	24,762	20,736	21,638	69,023	18,389	15,718	284,033
Did not earn HSD\GED	76,267	13,138	5,731	6,247	8,363	27,576	7,752	8,573	153,647
HSD\GED		4,341	7,984	6,038	6,071	18,458	4,047	3,323	50,262
Some college -- not attending		220	3,202	3,748	3,100	12,401	3,935	2,282	28,889
Some college -- attending		3,029	4,941	1,568	771	812	55		11,175
AA		68	1,773	1,931	1,400	4,255	1,264	849	11,540
BA+			1,131	1,204	1,933	5,522	1,336	691	11,817
NA	16,703								16,703
Other	45,529	11,725	14,065	12,103	11,911	48,017	18,987	18,129	180,465
Did not earn HSD\GED	38,372	6,945	1,931	1,274	1,892	7,329	5,403	6,467	69,614
HSD\GED		2,457	3,528	3,497	3,053	11,380	4,014	3,495	31,423
Some college -- not attending		135	2,057	3,186	2,677	11,294	3,453	2,421	25,223
Some college -- attending		2,157	3,607	467	439	1,474	210	39	8,392
AA		31	1,029	1,156	1,401	4,737	1,547	1,640	11,541
BA+			1,913	2,523	2,449	11,802	4,361	4,068	27,116
NA	7,157								7,157



**Appendix Table 13 - Employed Labor Force By Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over)  
San Joaquin County**

	<b>16-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-54</b>	<b>55-64</b>	<b>65+</b>	<b>Total</b>
<b>Total</b>	<b>8,302</b>	<b>31,992</b>	<b>30,923</b>	<b>31,401</b>	<b>126,756</b>	<b>38,508</b>	<b>11,999</b>	<b>279,880</b>
<b>White</b>	<b>2,206</b>	<b>8,993</b>	<b>9,506</b>	<b>9,504</b>	<b>47,989</b>	<b>21,413</b>	<b>7,241</b>	<b>106,853</b>
Did not earn HSD\GED	644	544	556	537	2,716	873	270	<b>6,140</b>
HSD\GED	863	3,246	2,022	2,233	11,886	4,332	1,292	<b>25,875</b>
Some college -- not attending	105	1,713	2,186	1,546	13,100	6,006	2,051	<b>26,706</b>
Some college -- attending	593	1,661	753	409	1,082	115	0	<b>4,612</b>
AA	0	676	1,232	1,652	5,460	2,692	1,307	<b>13,020</b>
BA+	0	1,153	2,757	3,128	13,745	7,395	2,321	<b>30,500</b>
<b>Latino</b>	<b>4,615</b>	<b>15,742</b>	<b>13,926</b>	<b>14,289</b>	<b>48,059</b>	<b>9,363</b>	<b>2,538</b>	<b>108,533</b>
Did not earn HSD\GED	1,397	3,172	3,358	4,918	17,593	3,421	1,038	<b>34,897</b>
HSD\GED	1,770	5,055	4,359	4,122	13,051	2,256	483	<b>31,095</b>
Some college -- not attending	180	2,729	2,567	1,988	8,847	2,176	564	<b>19,051</b>
Some college -- attending	1,245	2,905	1,044	393	597	55	0	<b>6,239</b>
AA	23	1,194	1,745	1,177	3,236	537	25	<b>7,937</b>
BA+	0	688	853	1,691	4,736	919	428	<b>9,315</b>
<b>Other</b>	<b>1,481</b>	<b>7,256</b>	<b>7,491</b>	<b>7,607</b>	<b>30,708</b>	<b>7,731</b>	<b>2,220</b>	<b>64,495</b>
Did not earn HSD\GED	219	573	545	553	2,951	1,770	539	<b>7,150</b>
HSD\GED	759	2,107	1,721	2,065	6,445	1,356	352	<b>14,804</b>
Some college -- not attending	58	1,262	2,093	1,750	7,887	1,382	240	<b>14,673</b>
Some college -- attending	413	1,449	283	320	655	0	0	<b>3,120</b>
AA	31	777	938	908	2,995	864	254	<b>6,767</b>
BA+	0	1,088	1,912	2,012	9,774	2,360	834	<b>17,981</b>

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from IPUMS



**Appendix Table 14- Full-Time Employed Labor Force By Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over)  
San Joaquin County**

	<b>16-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-54</b>	<b>55-64</b>	<b>65+</b>	<b>Total</b>
<b>Total</b>	<b>874</b>	<b>10,779</b>	<b>19,917</b>	<b>21,780</b>	<b>92,049</b>	<b>27,898</b>	<b>5,751</b>	<b>179,047</b>
<b>White</b>	<b>213</b>	<b>2,555</b>	<b>6,680</b>	<b>6,824</b>	<b>35,419</b>	<b>16,010</b>	<b>3,559</b>	<b>71,259</b>
Did not earn HSD\GED	33	12	501	310	1,644	560	221	<b>3,281</b>
HSD\GED	107	1,264	1,586	1,604	8,870	3,188	528	<b>17,146</b>
Some college -- not attending	74	525	1,632	1,180	9,320	4,552	1,018	<b>18,301</b>
Some college -- attending	0	141	313	200	732	115	0	<b>1,501</b>
AA	0	198	962	1,162	4,064	1,975	693	<b>9,055</b>
BA+	0	415	1,686	2,368	10,789	5,619	1,099	<b>21,976</b>
<b>Latino</b>	<b>661</b>	<b>6,392</b>	<b>8,538</b>	<b>9,803</b>	<b>33,649</b>	<b>6,087</b>	<b>1,223</b>	<b>66,354</b>
Did not earn HSD\GED	49	1,801	1,959	3,135	11,822	1,829	462	<b>21,057</b>
HSD\GED	295	2,144	2,671	3,016	9,295	1,609	253	<b>19,283</b>
Some college -- not attending	158	1,221	1,690	1,237	6,546	1,639	271	<b>12,762</b>
Some college -- attending	158	430	422	243	485	32	0	<b>1,771</b>
AA	0	622	1,205	765	2,215	291	0	<b>5,099</b>
BA+	0	173	592	1,407	3,286	687	236	<b>6,382</b>
<b>Other</b>	<b>0</b>	<b>1,833</b>	<b>4,698</b>	<b>5,153</b>	<b>22,981</b>	<b>5,801</b>	<b>969</b>	<b>41,434</b>
Did not earn HSD\GED	0	118	442	312	2,122	1,301	78	<b>4,374</b>
HSD\GED	0	788	750	1,480	4,142	1,066	126	<b>8,353</b>
Some college -- not attending	0	280	1,556	1,286	6,238	1,110	111	<b>10,581</b>
Some college -- attending	0	278	196	49	272	0	0	<b>794</b>
AA	0	202	728	624	2,602	688	145	<b>4,989</b>
BA+	0	167	1,027	1,401	7,604	1,636	508	<b>12,344</b>

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS



**Appendix Table 15- Labor Force By Age, Gender, and Educational Attainment (Persons 16 and Over) San Joaquin County**

	<b>16-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-54</b>	<b>55-64</b>	<b>65+</b>	<b>Total</b>
<b>Total</b>	<b>12,845</b>	<b>39,914</b>	<b>35,623</b>	<b>35,926</b>	<b>142,152</b>	<b>43,314</b>	<b>13,045</b>	<b>322,820</b>
<b>Men</b>	<b>6,362</b>	<b>21,808</b>	<b>19,538</b>	<b>20,318</b>	<b>77,663</b>	<b>23,691</b>	<b>6,946</b>	<b>176,326</b>
Did not earn HSD\GED	2,508	4,402	3,575	4,815	17,126	4,617	966	<b>38,010</b>
HSD\GED	2,547	7,971	6,714	6,347	21,805	4,224	1,180	<b>50,789</b>
Some college -- not attending	137	3,189	3,990	3,294	17,838	6,454	1,405	<b>36,307</b>
Some college -- attending	1,170	3,593	1,065	588	1,514	88	30	<b>8,049</b>
AA	0	1,156	1,673	1,829	5,701	2,388	971	<b>13,718</b>
BA+	0	1,496	2,521	3,445	13,679	5,920	2,394	<b>29,454</b>
<b>Women</b>	<b>6,483</b>	<b>18,105</b>	<b>16,085</b>	<b>15,609</b>	<b>64,489</b>	<b>19,624</b>	<b>6,099</b>	<b>146,494</b>
Did not earn HSD\GED	1,828	1,804	1,541	2,379	9,890	2,527	1,036	<b>21,005</b>
HSD\GED	2,384	4,823	3,506	3,371	14,350	5,187	1,264	<b>34,885</b>
Some college -- not attending	247	3,386	4,028	3,187	15,291	4,215	1,739	<b>32,093</b>
Some college -- attending	1,935	4,119	1,372	744	1,194	174	0	<b>9,539</b>
AA	89	2,148	2,450	2,176	7,869	2,048	685	<b>17,465</b>
BA+	0	1,825	3,189	3,751	15,894	5,472	1,375	<b>31,507</b>

*Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from IPUMS*



**Appendix Table 16- Part-Time Employed Labor Force by Age, Gender, and Educational Attainment (Persons 16 and Over)  
San Joaquin County**

	<b>16-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-54</b>	<b>55-64</b>	<b>65+</b>	<b>Total</b>
<b>Total</b>	<b>7,428</b>	<b>21,212</b>	<b>11,007</b>	<b>9,621</b>	<b>34,707</b>	<b>10,610</b>	<b>6,248</b>	<b>100,833</b>
<b>Men</b>	<b>3,312</b>	<b>10,510</b>	<b>4,874</b>	<b>4,332</b>	<b>13,749</b>	<b>4,368</b>	<b>2,835</b>	<b>43,980</b>
Did not earn HSD\GED	1,080	1,448	932	1,252	3,934	1,269	336	<b>10,251</b>
HSD\GED	1,485	3,767	1,787	1,206	4,363	358	500	<b>13,465</b>
Some college -- not attending	59	1,574	850	689	2,717	966	449	<b>7,303</b>
Some college -- attending	688	2,241	325	234	401	0	0	<b>3,890</b>
AA	0	616	210	227	392	625	506	<b>2,575</b>
BA+	0	864	771	723	1,943	1,150	1,045	<b>6,496</b>
<b>Women</b>	<b>4,116</b>	<b>10,703</b>	<b>6,132</b>	<b>5,289</b>	<b>20,958</b>	<b>6,242</b>	<b>3,413</b>	<b>56,853</b>
Did not earn HSD\GED	1,099	909	625	999	3,737	1,104	750	<b>9,223</b>
HSD\GED	1,506	2,445	1,307	1,114	4,712	1,722	720	<b>13,527</b>
Some college -- not attending	52	2,104	1,119	892	5,014	1,297	1,006	<b>11,483</b>
Some college -- attending	1,405	2,925	824	395	443	22	0	<b>6,015</b>
AA	54	1,009	811	958	2,418	514	242	<b>6,006</b>
BA+	0	1,310	1,447	930	4,633	1,582	695	<b>10,598</b>

*Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from IPUMS*



**Appendix Table 17- Unemployed Labor Force by Age, Gender, and Educational Attainment (Persons 16 and Over)  
San Joaquin County**

	<b>16-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-54</b>	<b>55-64</b>	<b>65+</b>	<b>Total</b>
<b>Total</b>	<b>4,544</b>	<b>7,922</b>	<b>4,700</b>	<b>4,526</b>	<b>15,395</b>	<b>4,807</b>	<b>1,046</b>	<b>42,939</b>
<b>Men</b>	<b>2,628</b>	<b>4,632</b>	<b>2,323</b>	<b>2,567</b>	<b>7,267</b>	<b>2,271</b>	<b>674</b>	<b>22,363</b>
Did not earn HSD\GED	1,346	1,444	422	774	2,208	606	58	<b>6,858</b>
HSD\GED	865	1,457	1,167	791	2,159	432	155	<b>7,026</b>
Some college -- not attending	41	508	534	724	1,632	692	228	<b>4,359</b>
Some college -- attending	376	905	122	78	128	36	30	<b>1,676</b>
AA	0	96	0	54	742	225	49	<b>1,166</b>
BA+	0	223	79	146	397	280	154	<b>1,279</b>
<b>Women</b>	<b>1,915</b>	<b>3,290</b>	<b>2,376</b>	<b>1,959</b>	<b>8,128</b>	<b>2,536</b>	<b>372</b>	<b>20,577</b>
Did not earn HSD\GED	730	473	235	412	1,549	475	97	<b>3,971</b>
HSD\GED	672	930	951	507	2,615	1,036	162	<b>6,874</b>
Some college -- not attending	0	364	638	473	1,663	413	60	<b>3,611</b>
Some college -- attending	478	793	236	133	246	56	0	<b>1,941</b>
AA	35	561	207	215	1,136	118	21	<b>2,293</b>
BA+	0	170	109	219	920	438	31	<b>1,887</b>

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS



**Appendix Table 18- Unemployment Rates by Age, Gender, and Educational Attainment San Joaquin County**

	<b>16-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-54</b>	<b>55-64</b>	<b>65+</b>	<b>Total</b>
<b>Total</b>	<b>35.4%</b>	<b>19.8%</b>	<b>13.2%</b>	<b>12.6%</b>	<b>10.8%</b>	<b>11.1%</b>	<b>8.0%</b>	<b>13.3%</b>
<b>Men</b>	<b>41.3%</b>	<b>21.2%</b>	<b>11.9%</b>	<b>12.6%</b>	<b>9.4%</b>	<b>9.6%</b>	<b>9.7%</b>	<b>12.7%</b>
Did not earn HSD\GED	53.7%	32.8%	11.8%	16.1%	12.9%	13.1%	6.0%	<b>18.0%</b>
HSD\GED	34.0%	18.3%	17.4%	12.5%	9.9%	10.2%	13.2%	<b>13.8%</b>
Some college -- not attending	29.7%	15.9%	13.4%	22.0%	9.2%	10.7%	16.2%	<b>12.0%</b>
Some college -- attending	32.1%	25.2%	11.4%	13.3%	8.5%	41.3%	100.0%	<b>20.8%</b>
AA	---	8.3%	---	2.9%	13.0%	9.4%	5.1%	<b>8.5%</b>
BA+	---	14.9%	3.1%	4.2%	2.9%	4.7%	6.4%	<b>4.3%</b>
<b>Women</b>	<b>29.5%</b>	<b>18.2%</b>	<b>14.8%</b>	<b>12.6%</b>	<b>12.6%</b>	<b>12.9%</b>	<b>6.1%</b>	<b>14.0%</b>
Did not earn HSD\GED	39.9%	26.2%	15.3%	17.3%	15.7%	18.8%	9.4%	<b>18.9%</b>
HSD\GED	28.2%	19.3%	27.1%	15.0%	18.2%	20.0%	12.8%	<b>19.7%</b>
Some college -- not attending	---	10.7%	15.8%	14.8%	10.9%	9.8%	3.5%	<b>11.3%</b>
Some college -- attending	24.7%	19.3%	17.2%	17.8%	20.6%	32.2%	---	<b>20.4%</b>
AA	39.7%	26.1%	8.4%	9.9%	14.4%	5.7%	3.1%	<b>13.1%</b>
BA+	---	9.3%	3.4%	5.8%	5.8%	8.0%	2.3%	<b>6.0%</b>

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from IPUMS



**Appendix Table 19 - Part-Time Employed Labor Force by Broad Occupation Categories, Educational Attainment and Management Status San Joaquin County**

	Total	Managers					
		Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	<b>100,833</b>	<b>8,148</b>	<b>695</b>	<b>1,546</b>	<b>2,461</b>	<b>467</b>	<b>696</b>
11 Management Occupations	<b>4,026</b>	<b>4,026</b>	290	806	1,246	84	460
13 Business Operations Specialists	<b>815</b>	<b>0</b>	0	0	0	0	0
13 Financial Specialists	<b>905</b>	<b>0</b>	0	0	0	0	0
15 Computer and Mathematical Occupations	<b>298</b>	<b>0</b>	0	0	0	0	0
17 Architecture and Engineering Occupations	<b>886</b>	<b>0</b>	0	0	0	0	0
19 Life, Physical, and Social Science Occupations	<b>313</b>	<b>19</b>	0	0	0	0	0
21 Community and Social Science Occupations	<b>9,349</b>	<b>223</b>	0	0	0	0	18
27 Arts, Design, Entertainment, Sports, and Media Occupations	<b>1,354</b>	<b>0</b>	0	0	0	0	0
29 Healthcare Practitioners and Technical Occupations	<b>4,023</b>	<b>425</b>	0	14	0	0	0
31 Healthcare Support Occupations	<b>3,250</b>	<b>0</b>	0	0	0	0	0
33 Protective Service Occupations	<b>1,321</b>	<b>0</b>	0	0	0	0	0
35 Food Preparation and Serving Occupations	<b>10,151</b>	<b>994</b>	78	203	411	302	0
37 Building and Ground Cleaning and Maintenance Occupations	<b>5,981</b>	<b>24</b>	0	0	0	0	24
39 Personal Care and Service Occupations	<b>7,097</b>	<b>39</b>	0	39	0	0	0
41 Sales Occupations	<b>12,826</b>	<b>1,281</b>	81	374	475	0	126
43 Office and Administrative Support Occupations	<b>13,407</b>	<b>554</b>	111	43	144	81	11
45 Farming, Fishing, and Forestry Occupations	<b>5,358</b>	<b>74</b>	74	0	0	0	0
47 Construction Trades	<b>4,198</b>	<b>199</b>	11	0	64	0	38
47 Extraction Workers	<b>358</b>	<b>0</b>	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	<b>2,195</b>	<b>50</b>	50	0	0	0	0
51 Production Occupations	<b>4,643</b>	<b>238</b>	0	67	121	0	19
53 Transportation and Material Moving Occupations	<b>7,988</b>	<b>0</b>	0	0	0	0	0
55 Military Specific Occupations	<b>91</b>	<b>0</b>	0	0	0	0	0



	Specialists					
	Sub- Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	<b>41,442</b>	<b>6,976</b>	<b>10,309</b>	<b>6,470</b>	<b>2,847</b>	<b>4,210</b>
11 Management Occupations	<b>0</b>	0	0	0	0	0
13 Business Operations Specialists	<b>815</b>	28	44	169	122	168
13 Financial Specialists	<b>905</b>	0	43	185	24	293
15 Computer and Mathematical Occupations	<b>298</b>	88	40	0	36	0
17 Architecture and Engineering Occupations	<b>886</b>	0	94	144	0	121
19 Life, Physical, and Social Science Occupations	<b>293</b>	28	0	0	37	31
21 Community and Social Science Occupations	<b>7,506</b>	235	169	677	274	791
27 Arts, Design, Entertainment, Sports, and Media Occupations	<b>1,354</b>	65	128	239	224	253
29 Healthcare Practitioners and Technical Occupations	<b>3,597</b>	0	269	512	126	925
31 Healthcare Support Occupations	<b>0</b>	0	0	0	0	0
33 Protective Service Occupations	<b>340</b>	15	145	78	29	62
35 Food Preparation and Serving Occupations	<b>4,274</b>	967	1,833	395	609	179
37 Building and Ground Cleaning and Maintenance Occupations	<b>0</b>	0	0	0	0	0
39 Personal Care and Service Occupations	<b>1,419</b>	79	320	657	65	154
41 Sales Occupations	<b>1,370</b>	86	208	439	151	212
43 Office and Administrative Support Occupations	<b>0</b>	0	0	0	0	0
45 Farming, Fishing, and Forestry Occupations	<b>0</b>	0	0	0	0	0
47 Construction Trades	<b>3,999</b>	1,581	1,023	706	199	233
47 Extraction Workers	<b>358</b>	187	127	19	0	0
49 Installation, Maintenance, and Repair Workers	<b>1,602</b>	375	521	285	306	90
51 Production Occupations	<b>4,405</b>	1,586	1,539	755	178	280
53 Transportation and Material Moving Occupations	<b>7,988</b>	1,657	3,773	1,209	467	417
55 Military Specific Occupations	<b>31</b>	0	31	0	0	0



	Support					
	Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	<b>51,243</b>	<b>11,803</b>	<b>15,137</b>	<b>9,855</b>	<b>6,591</b>	<b>3,676</b>
11 Management Occupations	<b>0</b>	0	0	0	0	0
13 Business Operations Specialists	<b>0</b>	0	0	0	0	0
13 Financial Specialists	<b>0</b>	0	0	0	0	0
15 Computer and Mathematical Occupations	<b>0</b>	0	0	0	0	0
17 Architecture and Engineering Occupations	<b>0</b>	0	0	0	0	0
19 Life, Physical, and Social Science Occupations	<b>0</b>	0	0	0	0	0
21 Community and Social Science Occupations	<b>1,619</b>	154	334	502	59	340
27 Arts, Design, Entertainment, Sports, and Media Occupations	<b>0</b>	0	0	0	0	0
29 Healthcare Practitioners and Technical Occupations	<b>0</b>	0	0	0	0	0
31 Healthcare Support Occupations	<b>3,250</b>	336	658	1,186	145	648
33 Protective Service Occupations	<b>981</b>	283	124	237	248	70
35 Food Preparation and Serving Occupations	<b>4,883</b>	986	1,458	875	1,071	181
37 Building and Ground Cleaning and Maintenance Occupations	<b>5,957</b>	2,732	2,031	526	167	258
39 Personal Care and Service Occupations	<b>5,639</b>	1,244	1,698	1,145	1,011	287
41 Sales Occupations	<b>10,175</b>	1,710	3,492	1,509	1,957	734
43 Office and Administrative Support Occupations	<b>12,852</b>	1,012	3,595	3,612	1,664	981
45 Farming, Fishing, and Forestry Occupations	<b>5,284</b>	3,347	1,261	263	211	177
47 Construction Trades	<b>0</b>	0	0	0	0	0
47 Extraction Workers	<b>0</b>	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	<b>543</b>	0	425	0	58	0
51 Production Occupations	<b>0</b>	0	0	0	0	0
53 Transportation and Material Moving Occupations	<b>0</b>	0	0	0	0	0
55 Military Specific Occupations	<b>60</b>	0	60	0	0	0

Source: Applied Development Economics ,based on US Census ACS Public Use Microdata 2012-2014 from iPUMS (Note: Data column for "BA and higher" not included, though sub-total includes this labor force).



**Appendix Table 20 - Unemployed Labor Force by Broad Occupation Categories, Educational Attainment and Management Status (excluding Long-Term Unemployed) San Joaquin County**

	Total	Managers					
		Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	<b>34,383</b>	<b>2,586</b>	<b>194</b>	<b>558</b>	<b>1,100</b>	<b>118</b>	<b>372</b>
11 Management Occupations	<b>1,230</b>	<b>1,230</b>	27	372	480	52	130
13 Business Operations Specialists	<b>509</b>	<b>0</b>	0	0	0	0	0
13 Financial Specialists	<b>292</b>	<b>0</b>	0	0	0	0	0
15 Computer and Mathematical Occupations	<b>462</b>	<b>0</b>	0	0	0	0	0
17 Architecture and Engineering Occupations	<b>138</b>	<b>0</b>	0	0	0	0	0
19 Life, Physical, and Social Science Occupations	<b>107</b>	<b>0</b>	0	0	0	0	0
21 Community and Social Science Occupations	<b>1,427</b>	<b>0</b>	0	0	0	0	0
27 Arts, Design, Entertainment, Sports, and Media Occupations	<b>787</b>	<b>0</b>	0	0	0	0	0
29 Healthcare Practitioners and Technical Occupations	<b>579</b>	<b>74</b>	0	0	0	0	0
31 Healthcare Support Occupations	<b>1,133</b>	<b>0</b>	0	0	0	0	0
33 Protective Service Occupations	<b>398</b>	<b>39</b>	0	0	39	0	0
35 Food Preparation and Serving Occupations	<b>2,352</b>	<b>185</b>	53	0	20	0	112
37 Building and Ground Cleaning and Maintenance Occupations	<b>1,504</b>	<b>39</b>	0	39	0	0	0
39 Personal Care and Service Occupations	<b>1,516</b>	<b>27</b>	0	0	27	0	0
41 Sales Occupations	<b>3,052</b>	<b>287</b>	0	129	123	0	35
43 Office and Administrative Support Occupations	<b>5,479</b>	<b>226</b>	0	17	79	66	64
45 Farming, Fishing, and Forestry Occupations	<b>2,762</b>	<b>22</b>	22	0	0	0	0
47 Construction Trades	<b>2,390</b>	<b>222</b>	92	0	97	0	33
47 Extraction Workers	<b>205</b>	<b>0</b>	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	<b>658</b>	<b>25</b>	0	0	25	0	0
51 Production Occupations	<b>3,309</b>	<b>211</b>	0	0	211	0	0
53 Transportation and Material Moving Occupations	<b>4,094</b>	<b>0</b>	0	0	0	0	0
55 Military Specific Occupations	<b>0</b>	<b>0</b>	0	0	0	0	0



	Specialists					
	Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	<b>15,734</b>	<b>3,909</b>	<b>4,356</b>	<b>2,991</b>	<b>1,141</b>	<b>1,418</b>
11 Management Occupations	<b>0</b>	0	0	0	0	0
13 Business Operations Specialists	<b>509</b>	22	139	74	0	144
13 Financial Specialists	<b>292</b>	0	23	37	0	0
15 Computer and Mathematical Occupations	<b>462</b>	0	46	179	48	106
17 Architecture and Engineering Occupations	<b>138</b>	0	0	41	0	29
19 Life, Physical, and Social Science Occupations	<b>107</b>	0	24	0	0	0
21 Community and Social Science Occupations	<b>1,204</b>	97	42	204	193	171
27 Arts, Design, Entertainment, Sports, and Media Occupations	<b>787</b>	110	82	54	73	351
29 Healthcare Practitioners and Technical Occupations	<b>505</b>	63	35	45	57	172
31 Healthcare Support Occupations	<b>0</b>	0	0	0	0	0
33 Protective Service Occupations	<b>178</b>	0	15	67	0	29
35 Food Preparation and Serving Occupations	<b>1,072</b>	327	475	128	108	34
37 Building and Ground Cleaning and Maintenance Occupations	<b>0</b>	0	0	0	0	0
39 Personal Care and Service Occupations	<b>162</b>	33	69	0	35	25
41 Sales Occupations	<b>130</b>	0	13	26	0	0
43 Office and Administrative Support Occupations	<b>65</b>	0	18	0	0	47
45 Farming, Fishing, and Forestry Occupations	<b>26</b>	0	0	0	0	0
47 Construction Trades	<b>2,168</b>	641	702	610	79	15
47 Extraction Workers	<b>205</b>	175	0	30	0	0
49 Installation, Maintenance, and Repair Workers	<b>534</b>	100	157	175	23	79
51 Production Occupations	<b>3,097</b>	895	1,182	545	163	112
53 Transportation and Material Moving Occupations	<b>4,094</b>	1,446	1,334	776	361	106
55 Military Specific Occupations	<b>0</b>	0	0	0	0	0



	Support					
	Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	<b>16,063</b>	<b>3,847</b>	<b>5,735</b>	<b>3,152</b>	<b>1,221</b>	<b>1,558</b>
11 Management Occupations	<b>0</b>	0	0	0	0	0
13 Business Operations Specialists	<b>0</b>	0	0	0	0	0
13 Financial Specialists	<b>0</b>	0	0	0	0	0
15 Computer and Mathematical Occupations	<b>0</b>	0	0	0	0	0
17 Architecture and Engineering Occupations	<b>0</b>	0	0	0	0	0
19 Life, Physical, and Social Science Occupations	<b>0</b>	0	0	0	0	0
21 Community and Social Science Occupations	<b>224</b>	22	99	20	19	64
27 Arts, Design, Entertainment, Sports, and Media Occupations	<b>0</b>	0	0	0	0	0
29 Healthcare Practitioners and Technical Occupations	<b>0</b>	0	0	0	0	0
31 Healthcare Support Occupations	<b>1,133</b>	145	312	445	130	101
33 Protective Service Occupations	<b>181</b>	0	91	68	0	22
35 Food Preparation and Serving Occupations	<b>1,095</b>	0	582	211	267	35
37 Building and Ground Cleaning and Maintenance Occupations	<b>1,465</b>	688	492	104	117	64
39 Personal Care and Service Occupations	<b>1,327</b>	229	616	333	34	61
41 Sales Occupations	<b>2,635</b>	338	619	606	361	642
43 Office and Administrative Support Occupations	<b>5,188</b>	386	2,442	1,266	271	397
45 Farming, Fishing, and Forestry Occupations	<b>2,715</b>	2,039	482	71	22	100
47 Construction Trades	<b>0</b>	0	0	0	0	0
47 Extraction Workers	<b>0</b>	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	<b>100</b>	0	0	28	0	72
51 Production Occupations	<b>0</b>	0	0	0	0	0
53 Transportation and Material Moving Occupations	<b>0</b>	0	0	0	0	0
55 Military Specific Occupations	<b>0</b>	0	0	0	0	0

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS (Note: Data column for "BA and higher" not included, though sub-total includes this labor force).



**Appendix Table 21- Long-Term Unemployed Labor Force By Educational Attainment**

	<b>Total</b>	<b>&lt;HS</b>	<b>HS</b>	<b>Some Coll OUT</b>	<b>Some Coll IN</b>	<b>AA</b>	<b>BA or up</b>
Long-Term Unemployed persons	<b>8,556</b>	2,879	3,251	727	1,138	110	451

*Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS*



**Appendix Table 22 - Occupational Projections By Education and Training Requirement: New Jobs (Jobs Expected to Grow By At Least 50) San Joaquin County**

OCCSOC	Occupation	Total	01 Less than high school	02 High school diploma or equivalent	03 Some college, no degree	04 Postsecondary non-degree award	05 Associate's degree	06 Bachelor's degree or higher
	<b>Total</b>	<b>28,152</b>	<b>12,744</b>	<b>8,590</b>	<b>242</b>	<b>3,069</b>	<b>579</b>	<b>2,927</b>
11-1021	General and Operations Managers	485	0	0	0	0	0	485
11-2022	Sales Managers	105	0	0	0	0	0	105
11-3031	Financial Managers	52	0	0	0	0	0	52
11-3071	Transportation, Storage, and Distribution Managers	60	0	60	0	0	0	0
11-9111	Medical and Health Services Managers	85	0	0	0	0	0	85
13-1051	Cost Estimators	65	0	0	0	0	0	65
13-1071	Human Resources Specialists	92	0	0	0	0	0	92
13-1111	Management Analysts	92	0	0	0	0	0	92
13-1161	Market Research Analysts and Marketing Specialists	123	0	0	0	0	0	123
13-1199	Business Operations Specialists, All Other	108	0	108	0	0	0	0
13-2011	Accountants and Auditors	143	0	0	0	0	0	143
15-1121	Computer Systems Analysts	89	0	0	0	0	0	89
15-1132	Software Developers, Applications	69	0	0	0	0	0	69
15-1151	Computer User Support Specialists	96	0	0	96	0	0	0
21-1021	Child, Family, and School Social Workers	54	0	0	0	0	0	54
21-1022	Healthcare Social Workers	87	0	0	0	0	0	87
21-1093	Social and Human Service Assistants	128	0	128	0	0	0	0
25-1099	Postsecondary Teachers	170	0	0	0	0	0	170
25-2012	Kindergarten Teachers, Except Special Education	53	0	0	0	0	0	53
25-2021	Elementary School Teachers, Except Special Education	286	0	0	0	0	0	286
25-2022	Middle School Teachers, Except Special and	147	0	0	0	0	0	147



OCCCSOC	Occupation	Total	01 Less than high school	02 High school diploma or equivalent	03 Some college, no degree	04 Postsecondary non-degree award	05 Associate's degree	06 Bachelor's degree or higher
	Career/Technical Education							
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	94	0	0	0	0	0	94
25-3021	Self-Enrichment Education Teachers	112	0	112	0	0	0	0
25-3098	Substitute Teachers	87	0	0	0	0	0	87
25-3099	Teachers and Instructors, All Other	107	0	0	0	0	0	107
25-9041	Teacher Assistants	145	0	0	145	0	0	0
27-2022	Coaches and Scouts	58	0	0	0	0	0	58
29-1051	Pharmacists	67	0	0	0	0	0	67
29-1123	Physical Therapists	80	0	0	0	0	0	80
29-1141	Registered Nurses	440	0	0	0	0	440	0
29-2021	Dental Hygienists	84	0	0	0	0	84	0
29-2041	Emergency Medical Technicians and Paramedics	156	0	0	0	156	0	0
29-2052	Pharmacy Technicians	127	0	127	0	0	0	0
29-2056	Veterinary Technologists and Technicians	55	0	0	0	0	55	0
29-2061	Licensed Practical and Licensed Vocational Nurses	308	0	0	0	308	0	0
31-1011	Home Health Aides	857	857	0	0	0	0	0
31-1014	Nursing Assistants	517	0	0	0	517	0	0
31-9091	Dental Assistants	97	0	0	0	97	0	0
31-9092	Medical Assistants	190	0	0	0	190	0	0
33-2011	Firefighters	60	0	0	0	60	0	0
33-3012	Correctional Officers and Jailers	176	0	176	0	0	0	0
33-3051	Police and Sheriff's Patrol Officers	111	0	111	0	0	0	0
33-9032	Security Guards	299	0	299	0	0	0	0
35-1012	First-Line Supervisors of Food Preparation and	318	0	318	0	0	0	0



OCCCSOC	Occupation	Total	01 Less than high school	02 High school diploma or equivalent	03 Some college, no degree	04 Postsecondary non-degree award	05 Associate's degree	06 Bachelor's degree or higher
	Serving Workers							
35-2011	Cooks, Fast Food	198	198	0	0	0	0	0
35-2012	Cooks, Institution and Cafeteria	57	57	0	0	0	0	0
35-2014	Cooks, Restaurant	320	320	0	0	0	0	0
35-2021	Food Preparation Workers	121	121	0	0	0	0	0
35-3011	Bartenders	81	81	0	0	0	0	0
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	1,472	1,472	0	0	0	0	0
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	73	73	0	0	0	0	0
35-3031	Waiters and Waitresses	326	326	0	0	0	0	0
35-3041	Food Servers, Nonrestaurant	57	57	0	0	0	0	0
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	64	64	0	0	0	0	0
35-9021	Dishwashers	67	67	0	0	0	0	0
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	55	55	0	0	0	0	0
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	50	0	50	0	0	0	0
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	764	764	0	0	0	0	0
37-2012	Maids and Housekeeping Cleaners	225	225	0	0	0	0	0
39-1021	First-Line Supervisors of Personal Service Workers	52	0	52	0	0	0	0
39-5092	Manicurists and Pedicurists	55	0	0	0	55	0	0
39-9011	Childcare Workers	57	0	57	0	0	0	0
39-9021	Personal Care Aides	1,775	1,775	0	0	0	0	0
39-9031	Fitness Trainers and Aerobics Instructors	55	0	55	0	0	0	0
39-9032	Recreation Workers	113	0	0	0	0	0	113



<b>OCCCSOC</b>	<b>Occupation</b>	<b>Total</b>	<b>01 Less than high school</b>	<b>02 High school diploma or equivalent</b>	<b>03 Some college, no degree</b>	<b>04 Postsecondary non-degree award</b>	<b>05 Associate's degree</b>	<b>06 Bachelor's degree or higher</b>
41-1011	First-Line Supervisors of Retail Sales Workers	429	0	429	0	0	0	0
41-1012	First-Line Supervisors of Non-Retail Sales Workers	75	0	75	0	0	0	0
41-2011	Cashiers	782	782	0	0	0	0	0
41-2021	Counter and Rental Clerks	122	122	0	0	0	0	0
41-2031	Retail Salespersons	1,672	1,672	0	0	0	0	0
41-3099	Sales Representatives, Services, All Other	198	0	198	0	0	0	0
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	126	0	0	0	0	0	126
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	691	0	691	0	0	0	0
43-1011	First-Line Supervisors of Office and Administrative Support Workers	328	0	328	0	0	0	0
43-3011	Bill and Account Collectors	63	0	63	0	0	0	0
43-3021	Billing and Posting Clerks	121	0	121	0	0	0	0
43-3031	Bookkeeping, Accounting, and Auditing Clerks	321	0	321	0	0	0	0
43-4051	Customer Service Representatives	429	0	429	0	0	0	0
43-4061	Eligibility Interviewers, Government Programs	63	0	63	0	0	0	0
43-4171	Receptionists and Information Clerks	168	0	168	0	0	0	0
43-5032	Dispatchers, Except Police, Fire, and Ambulance	95	0	95	0	0	0	0
43-5061	Production, Planning, and Expediting Clerks	56	0	56	0	0	0	0
43-5071	Shipping, Receiving, and Traffic Clerks	235	0	235	0	0	0	0
43-5081	Stock Clerks and Order Fillers	528	528	0	0	0	0	0
43-6013	Medical Secretaries	203	0	203	0	0	0	0
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	428	0	428	0	0	0	0
43-9041	Insurance Claims and Policy Processing Clerks	57	0	57	0	0	0	0



<b>OCCCSOC</b>	<b>Occupation</b>	<b>Total</b>	<b>01 Less than high school</b>	<b>02 High school diploma or equivalent</b>	<b>03 Some college, no degree</b>	<b>04 Postsecondary non-degree award</b>	<b>05 Associate's degree</b>	<b>06 Bachelor's degree or higher</b>
43-9061	Office Clerks, General	440	0	440	0	0	0	0
45-2091	Agricultural Equipment Operators	71	71	0	0	0	0	0
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	98	0	98	0	0	0	0
47-2031	Carpenters	201	0	201	0	0	0	0
47-2061	Construction Laborers	155	155	0	0	0	0	0
47-2081	Drywall and Ceiling Tile Installers	179	179	0	0	0	0	0
47-2141	Painters, Construction and Maintenance	58	58	0	0	0	0	0
47-2152	Plumbers, Pipefitters, and Steamfitters	72	0	72	0	0	0	0
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	77	0	77	0	0	0	0
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	90	0	0	0	90	0	0
49-3023	Automotive Service Technicians and Mechanics	186	0	186	0	0	0	0
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	105	0	105	0	0	0	0
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	61	0	0	0	61	0	0
49-9041	Industrial Machinery Mechanics	111	0	111	0	0	0	0
49-9071	Maintenance and Repair Workers, General	238	0	238	0	0	0	0
51-1011	First-Line Supervisors of Production and Operating Workers	63	0	0	0	63	0	0
51-2092	Team Assemblers	198	0	198	0	0	0	0
51-2099	Assemblers and Fabricators, All Other	63	0	63	0	0	0	0
51-4121	Welders, Cutters, Solderers, and Brazers	57	0	57	0	0	0	0
51-6011	Laundry and Dry-Cleaning Workers	95	95	0	0	0	0	0
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	123	0	123	0	0	0	0



<b>OCCCSOC</b>	<b>Occupation</b>	<b>Total</b>	<b>01 Less than high school</b>	<b>02 High school diploma or equivalent</b>	<b>03 Some college, no degree</b>	<b>04 Postsecondary non-degree award</b>	<b>05 Associate's degree</b>	<b>06 Bachelor's degree or higher</b>
51-9111	Packaging and Filling Machine Operators and Tenders	153	0	153	0	0	0	0
51-9198	Helpers--Production Workers	108	108	0	0	0	0	0
51-9199	Production Workers, All Other	59	0	59	0	0	0	0
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	133	0	133	0	0	0	0
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	115	0	115	0	0	0	0
53-3031	Driver/Sales Workers	224	0	224	0	0	0	0
53-3032	Heavy and Tractor-Trailer Truck Drivers	1,473	0	0	0	1,473	0	0
53-3033	Light Truck or Delivery Services Drivers	322	0	322	0	0	0	0
53-3041	Taxi Drivers and Chauffeurs	63	63	0	0	0	0	0
53-6031	Automotive and Watercraft Service Attendants	64	64	0	0	0	0	0
53-7051	Industrial Truck and Tractor Operators	180	180	0	0	0	0	0
53-7061	Cleaners of Vehicles and Equipment	188	188	0	0	0	0	0
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,523	1,523	0	0	0	0	0
53-7064	Packers and Packagers, Hand	382	382	0	0	0	0	0
53-7081	Refuse and Recyclable Material Collectors	63	63	0	0	0	0	0



**Appendix Table 23 - Unemployed Labor Force-to-Job Openings Skills Match San Joaquin County**

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Credentials Match Occupational Requirement	01 < HS\ GED	02 HS\ GED	03 Some College -OUT	04 Some College- Attending	05 AA	06 BA or up
		<b>6,133</b>		<b>19,600</b>	<b>11,327</b>	<b>5,319</b>	<b>6,445</b>	<b>4,124</b>	<b>1,588</b>	<b>1,405</b>	<b>718</b>
53-7064	Packers and Packagers, Hand	106	Less than high school	879	<b>707</b>	414	293	105	67	0	0
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	410	Less than high school	1,272	<b>894</b>	547	347	170	100	81	27
53-7061	Cleaners of Vehicles and Equipment	53	Less than high school	235	<b>185</b>	91	95	0	39	0	11
53-7051	Industrial Truck and Tractor Operators	77	Less than high school	443	<b>289</b>	104	185	113	41	0	0
53-3030	Light Truck or Delivery Services Drivers	359	High school diploma or equivalent	856	<b>533</b>	291	256	277	0	0	32
53-3030	Heavy and Tractor-Trailer Truck Drivers	359	High school diploma or equivalent	856	<b>533</b>	291	256	277	0	0	32
51-9111	Packaging and Filling Machine Operators and Tenders	77	High school diploma or equivalent	253	<b>222</b>	31	222	0	0	0	0
49-9071	Maintenance and Repair Workers, General	70	High school diploma or equivalent	70	<b>34</b>	0	0	34	0	36	0
47-2061	Construction Laborers	56	Less than high school	711	<b>618</b>	277	341	59	19	15	0
45-20XX	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	267	High school diploma or equivalent	1,973	<b>247</b>	1,704	236	11	22	0	0



<b>OCCSOC</b>	<b>Occupation</b>	<b>Annual Openings</b>	<b>Required Education for Openings</b>	<b>Unemployed in Target Occupations</b>	<b>Unemployed Whose Credentials Match Occupational Requirement</b>	<b>01 &lt; HS\ GED</b>	<b>02 HS\ GED</b>	<b>03 Some College -OUT</b>	<b>04 Some College-Attending</b>	<b>05 AA</b>	<b>06 BA or up</b>
43-9061	Office Clerks, General	139	High school diploma or equivalent	609	<b>525</b>	37	251	274	0	47	0
43-6010	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	78	High school diploma or equivalent	381	<b>283</b>	0	150	132	53	0	45
43-5081	Stock Clerks and Order Fillers	170	Less than high school	890	<b>640</b>	238	402	78	116	56	0
43-5071	Shipping, Receiving, and Traffic Clerks	74	High school diploma or equivalent	263	<b>163</b>	63	118	45	17	20	0
43-4171	Receptionists and Information Clerks	53	High school diploma or equivalent	303	<b>284</b>	0	132	152	0	20	0
43-4051	Customer Service Representatives	106	High school diploma or equivalent	615	<b>504</b>	0	319	185	55	0	56
43-3031	Bookkeeping, Accounting, and Auditing Clerks	56	High school diploma or equivalent	347	<b>275</b>	0	166	110	0	48	23
43-1011	First-Line Supervisors of Office and Administrative Support Workers	87	High school diploma or equivalent	226	<b>96</b>	0	17	79	66	64	0
41-4010	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	104	Bachelor's degree	126	<b>0</b>	0	38	44	0	44	0
41-3099	Sales Representatives, Services, All Other	54	High school diploma or	119	<b>20</b>	20	20	0	12	67	0



OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Credentials Match Occupational Requirement	01 < HS\ GED	02 HS\ GED	03 Some College -OUT	04 Some College-Attending	05 AA	06 BA or up
			equivalent								
41-2031	Retail Salespersons	437	Less than high school	980	257	61	196	337	122	195	69
41-2010	Cashiers	362	Less than high school	1,219	565	231	334	201	226	228	0
41-1011	First-Line Supervisors of Retail Sales Workers	91	High school diploma or equivalent	170	170	0	118	53	0	0	0
39-9021	Personal Care Aides	206	Less than high school	870	533	206	327	221	34	61	21
37-1012	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	150	Less than high school	0	0	0	0	0	0	0	0
35-3031	Waiters and Waitresses	164	Less than high school	621	238	0	238	161	222	0	0
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	55	Less than high school	257	153	0	153	50	18	35	0
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	368	Less than high school	39	39	0	39	0	0	0	0
35-2021	Food Preparation Workers	77	Less than high school	521	403	202	202	29	89	0	0
35-2010	Cooks, Restaurant	130	Less than high school	409	309	125	183	81	19	0	0
35-2010	Cooks, Fast Food	130	Less than high school	409	309	125	183	81	19	0	0
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	75	High school diploma or equivalent	20	20	0	0	20	0	0	0



<b>OCCSOC</b>	<b>Occupation</b>	<b>Annual Openings</b>	<b>Required Education for Openings</b>	<b>Unemployed in Target Occupations</b>	<b>Unemployed Whose Credentials Match Occupational Requirement</b>	<b>01 &lt; HS\ GED</b>	<b>02 HS\ GED</b>	<b>03 Some College -OUT</b>	<b>04 Some College-Attending</b>	<b>05 AA</b>	<b>06 BA or up</b>
33-9030	Security Guards	60	High school diploma or equivalent	159	<b>137</b>	0	69	68	0	22	0
33-3010	Correctional Officers and Jailers	59	High school diploma or equivalent	40	<b>40</b>	0	0	40	0	0	0
31-9092	Medical Assistants	51	Postsecondary non-degree award	262	<b>117</b>	0	29	117	75	41	0
31-1010	Nursing Assistants	229	Less than high school	593	<b>313</b>	119	194	165	55	60	0
31-1010	Home Health Aides	229	Less than high school	593	<b>313</b>	119	194	165	55	60	0
29-2061	Licensed Practical and Licensed Vocational Nurses	60	Postsecondary non-degree award	66	<b>14</b>	0	0	14	0	53	0
29-1141	Registered Nurses	131	Associate's degree	129	<b>0</b>	0	35	0	0	0	94
25-9041	Teacher Assistants	65	Some college, no degree	224	<b>39</b>	22	99	20	19	64	0
25-2020	Elementary School Teachers, Except Special Education	86	Bachelor's degree	373	<b>218</b>	0	9	29	29	88	218
13-2011	Accountants and Auditors	51	Bachelor's degree	89	<b>89</b>	0	0	0	0	0	89
11-1021	General and Operations Managers	113	Bachelor's degree	129	<b>0</b>	0	0	129	0	0	0

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS and EMSI



**Appendix Table 24- Part-Time Labor Force-to-Job Openings Skills Match San Joaquin County**

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Part- Time in Target Occupations	Part-Time LF Whose Credential s Match Occupational Requirement	01 < HS\ GED	02 HS\ GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
		<b>6,133</b>		<b>61,144</b>	<b>32,051</b>	<b>11,738</b>	<b>17,901</b>	<b>11,304</b>	<b>7,084</b>	<b>4,462</b>	<b>8,654</b>
53-7064	Packers and Packagers, Hand	106	Less than high school	1,247	<b>986</b>	396	590	105	123	0	33
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	410	Less than high school	2,593	<b>1,898</b>	285	1,613	499	179	0	18
53-7061	Cleaners of Vehicles and Equipment	53	Less than high school	416	<b>292</b>	230	62	40	33	51	0
53-7051	Industrial Truck and Tractor Operators	77	Less than high school	604	<b>313</b>	66	247	146	0	120	25
53-3030	Light Truck or Delivery Services Drivers	359	High school diploma or equivalent	1,933	<b>1,009</b>	515	727	282	132	67	209
53-3030	Heavy and Tractor-Trailer Truck Drivers	359	High school diploma or equivalent	1,933	<b>1,009</b>	515	727	282	132	67	209
51-9111	Packaging and Filling Machine Operators and Tenders	77	High school diploma or equivalent	532	<b>131</b>	352	99	32	0	49	0
49-9071	Maintenance and Repair Workers, General	70	High school diploma or equivalent	119	<b>83</b>	0	0	83	26	0	10
47-2061	Construction Laborers	56	Less than high school	1,333	<b>869</b>	431	438	196	24	53	192
45-20XX	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	267	High school diploma or equivalent	4,290	<b>1,186</b>	2,827	990	197	131	120	26
43-9061	Office Clerks, General	139	High school diploma or	1,370	<b>692</b>	87	173	519	271	141	179



OCCSOC	Occupation	Annual Openings	Required Education for Openings	Part-Time in Target Occupations	Part-Time LF Whose Credentials Match Occupational Requirement	01 < HS\ GED	02 HS\ GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
			equivalent								
43-6010	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	78	High school diploma or equivalent	1,358	865	16	433	432	127	95	255
43-5081	Stock Clerks and Order Fillers	170	Less than high school	1,991	1,177	484	693	346	371	30	67
43-5071	Shipping, Receiving, and Traffic Clerks	74	High school diploma or equivalent	547	393	49	360	33	0	0	104
43-4171	Receptionists and Information Clerks	53	High school diploma or equivalent	1,046	509	55	110	399	140	0	342
43-4051	Customer Service Representatives	106	High school diploma or equivalent	2,468	1,364	193	895	469	276	196	439
43-3031	Bookkeeping, Accounting, and Auditing Clerks	56	High school diploma or equivalent	860	688	0	156	532	0	37	135
43-1011	First-Line Supervisors of Office and Administrative Support Workers	87	High school diploma or equivalent	554	187	111	43	144	81	11	165
41-4010	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	104	Bachelor's degree	459	21	87	180	81	89	0	21
41-3099	Sales Representatives, Services, All Other	54	High school diploma or equivalent	125	63	0	56	7	21	19	22
41-2031	Retail Salespersons	437	Less than high school	3,314	1,092	262	830	675	651	390	506



<b>OCCSOC</b>	<b>Occupation</b>	<b>Annual Openings</b>	<b>Required Education for Openings</b>	<b>Part-Time in Target Occupations</b>	<b>Part-Time LF Whose Credentials Match Occupational Requirement</b>	<b>01 &lt; HS\ GED</b>	<b>02 HS\ GED</b>	<b>03 Some College-OUT</b>	<b>04 Some College-Attending</b>	<b>05 AA</b>	<b>06 BA or up</b>
41-2010	Cashiers	362	Less than high school	5,604	<b>3,295</b>	1,128	2,167	636	1,197	305	171
41-1011	First-Line Supervisors of Retail Sales Workers	91	High school diploma or equivalent	802	<b>594</b>	47	278	316	0	63	98
39-9021	Personal Care Aides	206	Less than high school	2,486	<b>1,252</b>	466	787	704	442	28	60
37-1012	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	150	Less than high school	24	<b>0</b>	0	0	0	0	24	0
35-3031	Waiters and Waitresses	164	Less than high school	1,955	<b>693</b>	282	410	546	369	162	185
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	55	Less than high school	475	<b>127</b>	59	68	61	260	0	27
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	368	Less than high school	817	<b>563</b>	172	391	77	134	0	43
35-2021	Food Preparation Workers	77	Less than high school	1,020	<b>576</b>	256	321	118	162	112	51
35-2010	Cooks, Restaurant	130	Less than high school	2,873	<b>1,993</b>	621	1,372	277	407	17	179
35-2010	Cooks, Fast Food	130	Less than high school	2,873	<b>1,993</b>	621	1,372	277	407	17	179
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	75	High school diploma or equivalent	665	<b>311</b>	52	150	161	302	0	0
33-9030	Security Guards	60	High school diploma or equivalent	981	<b>361</b>	283	124	237	248	70	18
33-3010	Correctional Officers and Jailers	59	High school	69	<b>18</b>	0	0	18	0	39	12



OCCSOC	Occupation	Annual Openings	Required Education for Openings	Part-Time in Target Occupations	Part-Time LF Whose Credentials Match Occupational Requirement	01 < HS\ GED	02 HS\ GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
			diploma or equivalent								
31-9092	Medical Assistants	51	Postsecondary non-degree award	678	209	0	129	209	0	255	86
31-1010	Nursing Assistants	229	Less than high school	1,697	500	319	181	616	97	335	148
31-1010	Home Health Aides	229	Less than high school	1,697	500	319	181	616	97	335	148
29-2061	Licensed Practical and Licensed Vocational Nurses	60	Postsecondary non-degree award	564	257	0	122	257	58	0	126
29-1141	Registered Nurses	131	Associate's degree	1,826	601	0	68	120	0	601	1,037
25-9041	Teacher Assistants	65	Some college, no degree	1,516	480	154	313	420	59	340	230
25-2020	Elementary School Teachers, Except Special Education	86	Bachelor's degree	2,866	2,645	0	0	114	14	93	2,645
13-2011	Accountants and Auditors	51	Bachelor's degree	520	253	0	19	22	24	202	253
11-1021	General and Operations Managers	113	Bachelor's degree	45	0	0	24	0	0	21	0

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS and EMSI



