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Regional Economic Sector and Skills Gap Analysis: Fresno County

Prepared for:

Fresno Regional Workforce Investment Board

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SUMMARY

Prepared under the auspices of the Central California Workforce Collaborative (CCWC), this report provides trend information and projections for jobs in Fresno 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 10.0% in 2015, down from the peak of 16.7% in 2010, but still well above the low point before the recession of 8.0% in 2006.
- Before the recession, total jobs in the County peaked at 355,221 in 2007 and did not reach that level again until late 2014. Jobs have grown to 359,253 (annual average) in 2015.
- Health Care is projected to see the highest growth in jobs between 2015 and 2025 (14,900 new jobs), followed by Retail (6,200 new jobs) Admin Support (4,800 new jobs), and Food Service (4,700 new jobs).
- Fresno County is also expected to see relatively strong growth in Education (4,700 new jobs), and Professional, Scientific and Technical services (2,100 new jobs).
- Wholesale and Warehousing and projected to grow by a combined 4,200 new jobs, but Transportation industries are projected to decline by 200 jobs.
- Overall, Manufacturing is projected to decline by 100 jobs, but this trend masks considerable turbulence within the sector. Certain food processing and durable manufacturing sectors are projected to add nearly 2,600 jobs, but this is offset by declines in other manufacturing industries.
- Construction continues with a strong rebound from the recession, projected to grow by 3,700 jobs between 2015 and 2025, after having recovered more than 1,500 jobs over the past five years.
- Consistent with the above trends, the Health and Wellness industry cluster is projected to have the highest job growth over the next ten years, followed by the agriculture cluster.
- The Health and Wellness cluster is projected to add almost 15,400 jobs by 2025. Of the 15,400 new jobs, almost 6,800 (44 percent) will occur in the Health Care – Delivery sub-cluster. Within this sub-cluster, the number of jobs in hospitals is projected to increase by 1,800 new jobs, with another 900 new jobs projected for services to elderly and disabled persons.

- Within the broader Agricultural cluster, a number of food processing industries are projected to increase employment, including poultry processing (NAICS 311615), animal slaughtering (NAICS 311611), meat processed from carcasses (NAICS 311612), wineries (NAICS 312130), corrugated and solid fiber box (NAICS 322211), perishable prepared foods (NAICS 311991), and wood containers and pallets (NAICS 321920).
- The projections of job openings show a concentration in food services and retail (3,300 combined annual openings), but also transportation and materials handling (1,600 annual openings), health care (1,200 annual openings) and farm occupations (1,250 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 Fresno County is generally concentrated in the younger age groups, with 17 percent in the 16-24 age group and nearly 25 percent of the 25-34 age group. The prime working age group of 35-54 has 41 percent of the workforce, which is less concentrated on a year to year basis than the younger age groups. Workers over 55 constitute about 15 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 18.4 percent of the workforce in Fresno County, though the rate varies with age. At 23.7 percent of the prime working age (35 to 54) labor force, non-citizens are more concentrated in this age cohort relative to their overall concentration level.
- The Fresno County workforce exhibits comparable educational attainment to the rest of the San Joaquin Valley region, which is below state averages. About 78 percent of the workforce 25 years and older have at least a high school diploma or equivalent and 32.4 percent have a college degree, which is higher than the 28.5 percent figure for the CCWC region as a whole.
- Non-citizens 25 and over exhibit high rates of less than high school attainment level: 68 percent of the non-citizens in the labor force have not obtained a high school diploma or a GED. Nineteen percent of non-citizens in the labor force have earned a high school diploma or equivalent, which is only three percentage points lower than the rate for citizens (i.e. 22.6 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 85 percent Latino. Overall, Latinos have earned high school diplomas and GEDs at rates slightly surpassing Whites and Others, at 23.3 percent versus 20.1 percent (Whites) and 21.7 percent (Others). However, Whites and Others are over two times more likely than Latinos to have earned a college degree: 17.6 percent of the Latinos in the labor force have earned a college degree versus 47 percent for Whites and 42 percent for Other races.

- Veterans in Fresno County tend to have high levels of overall educational attainment, with four percent not achieving a high school diploma. For the workforce as a whole, 22.0 percent do not have a high school diploma or equivalent degree. Among disabled workers, however, nearly 26.8 percent do not have a high school diploma.

CONCLUSION

At 1.3 percent a year, jobs in Fresno County is expected to grow modestly from now to 2025, although analysts project a number of sectors (Construction, 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 10.0 percent in 2015, down from the peak of 16.7 percent in 2010, but still well above the low point before the recession of 8.0 percent in 2006 (Table 1). While employment levels have been increasing since 2010, the size of the labor force has oscillated somewhat, from 438,900 in 2010 to 440,400 in 2012, slightly down the following year to 439,900 in 2013, and finally to 443,467 in 2015.

Table 1 — Annual Labor Force Trends, 2000-2015: Fresno County

Period	Labor Force Trends	Employed Labor Force	Unemployment Rate
08-15 Ann. Growth Rate	0.5%	0.5%	14.0%
00-08 Annual Growth Rate	1.3%	1.2%	10.1%
2015	443,467	399,308	10.0%
2014	441,000	389,800	11.6%
2013	439,900	381,800	13.2%
2012	440,400	373,600	15.2%
2011	442,800	369,500	16.5%
2010	438,900	365,500	16.7%
2009	434,000	370,300	14.7%
2008	429,700	384,300	10.6%
2007	418,600	382,800	8.6%
2006	410,400	377,500	8.0%
2005	407,200	370,600	9.0%
2004	404,300	362,200	10.4%
2003	403,700	356,600	11.7%
2002	401,100	355,200	11.4%
2001	389,500	347,900	10.7%
2000	388,700	348,200	10.4%

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

The household population has increased by 0.9 percent annually between 2010 and 2015 – a rate on par with 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, Fresno 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.

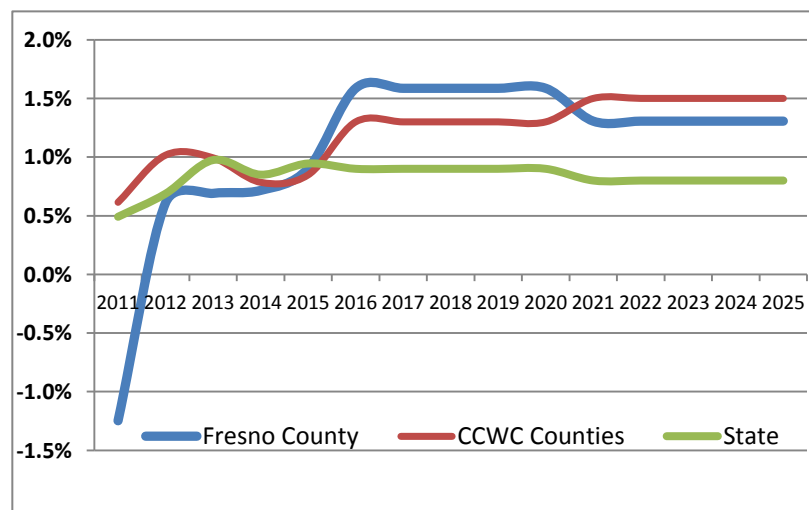
Table 2 – Total and Household Population Trends: Fresno County, CCWC Region, and California

Year	Household Population					
	Fresno County	Growth Rate	CCWC Counties	Growth Rate	State ('000)	Growth Rate
2010	912,927		3,888,941		36,412	
2011	919,326	0.7%	3,912,829	0.6%	36,591	0.5%
2012	928,810	1.0%	3,952,595	1.0%	36,843	0.7%
2013	937,318	0.9%	3,991,868	1.0%	37,202	1.0%
2014	946,117	0.9%	4,023,198	0.8%	37,518	0.9%
2015	954,405	0.9%	4,057,322	0.8%	37,873	0.9%
10-15	41,478	0.9%	168,381	0.9%	1,461	0.8%

Year	Total Population					
	Fresno County	Annual Growth Rates	CCWC Counties	Growth Rate	State ('000)	Growth Rate
2010	930,450		4,004,407		37,254	
2011	936,089	0.61%	4,025,282	0.5%	37,428	0.5%
2012	945,058	0.96%	4,058,833	0.8%	37,681	0.7%
2013	954,040	0.95%	4,094,785	0.9%	38,031	0.9%
2014	963,375	0.98%	4,129,749	0.9%	38,357	0.9%
2015	972,297	0.93%	4,165,560	0.9%	38,715	0.9%
10-15	13,487	0.88%	161,153	0.8%	1,461	0.8%

Source: CA Dept. of Finance

Figure 1 - Annual Past and Projected Household Population Growth Rates



Source: CA Dept. of Finance

Before the recession, total jobs in the County peaked at 355,221 in 2007 and reached that level again only recently in 2015. The annual average number of jobs in 2015 is estimated at 359,253 (Table 3). Through 2008, total jobs in the County were growing at a 1.1 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: Fresno County

Period	Total Employment
08-15 Annual Growth Rate	0.2%
00-08 Annual Growth Rate	1.1%
2015	359,253
2014	354,646
2013	349,265
2012	338,684
2011	332,339
2010	329,941
2009	334,586
2008	354,548
2007	355,221
2006	350,356
2005	340,775
2004	333,208
2003	328,131
2002	328,937
2001	322,084
2000	324,397

Source: Applied Development Economics, based on CA EDD LMID

Farm employment grew at a 1.2 percent annual rate between 2010 and 2015 but is projected to increase at a slower rate of 0.1 percent over the next ten years (Table 4). Despite these overall trends, some job growth is projected in farm support (NAICS 115), especially within machine crop harvesting (NAICS 115113) (Table 5). 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 Fresno County are mainly in food processing. Manufacturing jobs decreased by more than 1,500 jobs between 2010 and 2015, from 24,356 in 2010 to 22,800 in 2015. This sector is expected to remain in place over the next ten years, declining by slightly under 100 jobs. Within manufacturing, food processing (NAICS 311-312) is expected to decline annually by 0.2 percent between 2015 and 2025. While overall food processing is projected to decline slightly in the coming years, there are specific industries that are slated to grow. Food manufacturing industries

such as animal slaughtering (NAICS 311611), meat processed from carcasses (NAICS 311612), perishable prepared foods (NAICS 311991) and wineries (NAICS 312130) are expected to increase by 1,251 new jobs respectively between 2015 and 2025 (Table 5).

A number of non-food processing manufacturing industries are also projected to produce new jobs. Paint and coatings (NAICS 325510), plastics pipe and pipe fittings (NAICS 326122), urethane ad other foam products (NAICS 326150), glass products (NAICS 327215), motor vehicle bodies (NAICS 336211 and 336370) and springs and mattress manufacturing (NAICS 332613 and 337910) are projected to have a combined growth of 919 jobs between 2015 and 2025.

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 construction (NAICS 236116), residential remodelers (NAICS 236118), and water and sewer line construction (NAICS 237110) are expected to grow during this period, which is consistent with expected population growth for the county over the next ten years (Table 5).

Table 4 — Employment Trends and Projections by Sectors: Fresno County

		2010 JOBS	2015 JOBS	2025 PROJECTED	15-25 CHANGE	10-15 ANNUAL GROWTH RATE	15-25 ANNUAL GROWTH RATE
	Total	341,80	376,535	427,084	50,549	2.0%	1.3%
11	Agriculture	46,536	49,284	49,838	554	1.2%	0.1%
21	Mining	173	267	371	104	9.1%	3.3%
22	Utilities	1,946	2,163	2,541	378	2.1%	1.6%
23	Construction	12,709	14,216	17,932	3,716	2.3%	2.1%
31-33	Manufacturing	24,356	22,800	22,705	-95	-1.3%	0.0%
42	Wholesale	11,464	14,492	17,213	2,721	4.8%	1.7%
44-45	Retail	32,823	37,249	43,465	6,216	2.6%	1.6%
48	Warehousing	6,615	7,849	9,395	1,546	3.5%	1.8%
49	Transportation	3,435	3,525	3,326	-199	0.5%	-0.6%
51	Information	3,559	4,044	4,548	504	2.6%	1.2%
52	Finance and Insurance	9,822	9,219	9,526	307	-1.3%	0.3%
53	Real Estate and Leasing	4,145	4,660	5,257	597	2.4%	1.2%
54	Prof., Scientific, Technical	10,631	11,302	13,404	2,102	1.2%	1.7%
55	Mgt. of Companies	2,116	2,269	1,471	-797	1.4%	-4.2%
561	Admin Support	13,371	17,401	22,229	4,827	5.4%	2.5%
562	Waste Mgt.	905	1,164	1,422	258	5.2%	2.0%
61	Education	38,450	41,169	45,923	4,754	1.4%	1.1%
62	Health	37,784	55,925	70,846	14,921	8.2%	2.4%
71	Arts, Rec. and Enter.	2,953	3,337	3,727	389	2.5%	1.1%
721	Accommodations	2,113	1,634	1,829	195	-5.0%	1.1%
722	Food and Drinking Services	21,325	26,391	31,097	4,706	4.4%	1.7%
81	Other Services	21,358	14,363	16,457	2,094	-7.6%	1.4%
92	Public Admin.	30,887	29,280	30,019	740	-1.1%	0.2%
98	Nat'l Security/Military	1,802	1,580	1,476	-103	-2.6%	-0.7%
99	Misc.	522	950	1,065	115	12.7%	1.1%

Source: Applied Development Economics, based on EMSI 2015 Q4 QCEW and Non-QCEW Industry Employment Data. (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx **T3r**)

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 64,537 in 2025 from 49,448 in 2015, for an annual rate of growth of 2.7 percent (Table 4). In an effort to accurately characterize the state of employment in the sector in Fresno 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 Fresno County.

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

NAICS	INDUSTRY	2015 JOBS	2025 PROJECTED	15-25 CHANGE	15-25 ANNUAL GROWTH RATE
	Total (Only Industries w/50+ Growth)	278,586	342,479	63,893	2.1%
11511	Crop Harvesting, Primarily by Machine	507	609	102	1.9%
11511	Postharvest Crop Activities (except Cotton	7,159	8,184	1,025	1.3%
11511	Farm Labor Contractors and Crew Leaders	21,935	23,422	1,487	0.7%
	11 Agric.	29,601	32,215	2,614	0.8%
21232	Construction Sand and Gravel Mining	130	239	109	6.3%
	21 Mining	130	239	109	6.3%
22111	Fossil Fuel Electric Power Generation	1,590	2,339	749	3.9%
22131	Water Supply and Irrigation Systems	142	196	54	3.3%
	22 Utilities	1,732	2,535	803	3.9%
23611	New Multifamily Housing Construction	94	189	95	7.2%
23611	Residential Remodelers	530	976	446	6.3%
23622	Commercial and Institutional Building	1,040	1,370	330	2.8%
23711	Water and Sewer Line and Related	902	1,216	313	3.0%
23713	Power and Communication Line and	180	257	77	3.6%
23799	Other Heavy and Civil Engineering	108	564	456	18.0%
23811	Poured Concrete Foundation and Structure	600	768	168	2.5%
23815	Glass and Glazing Contractors	100	193	93	6.8%
23816	Roofing Contractors	429	642	213	4.1%
23819	Other Foundation, Structure, and Building	88	195	108	8.4%
23821	Electrical Contractors and Other Wiring	1,555	2,071	516	2.9%
23822	Plumbing, Heating, and Air-Conditioning	1,688	2,295	607	3.1%
23829	Other Building Equipment Contractors	147	261	115	5.9%
23831	Drywall and Insulation Contractors	1,245	1,431	186	1.4%
23833	Flooring Contractors	291	518	227	5.9%

NAICS	INDUSTRY	2015 JOBS	2025 PROJECTED	15-25 CHANGE	15-25 ANNUAL GROWTH RATE
23839	Other Building Finishing Contractors	155	324	169	7.6%
23891	Site Preparation Contractors	547	962	415	5.8%
23899	All Other Specialty Trade Contractors	641	832	191	2.6%
	23 Const.	10,340	15,064	4,725	3.8%
31161	Animal (except Poultry) Slaughtering	1,918	2,233	315	1.5%
31161	Meat Processed from Carcasses	430	665	235	4.5%
31161	Poultry Processing	3,647	4,053	405	1.1%
31199	Perishable Prepared Food Manufacturing	178	278	100	4.6%
31213	Wineries	617	813	196	2.8%
32192	Wood Container and Pallet Manufacturing	274	336	61	2.0%
32221	Corrugated and Solid Fiber Box	396	536	140	3.1%
32221	Other Paperboard Container Manufacturing	56	112	56	7.1%
32229	All Other Converted Paper Product	114	171	58	4.2%
32551	Paint and Coating Manufacturing	124	259	135	7.7%
32612	Plastics Pipe and Pipe Fitting	130	284	154	8.1%
32615	Urethane and Other Foam Product (except	124	253	129	7.4%
32721	Glass Product Manufacturing Made of	161	240	78	4.0%
33261	Spring Manufacturing	109	242	132	8.3%
33299	All Other Miscellaneous Fabricated Metal	60	113	52	6.4%
33324	Food Product Machinery Manufacturing	219	277	58	2.4%
33621	Motor Vehicle Body Manufacturing	304	403	99	2.8%
33637	Motor Vehicle Metal Stamping	73	152	79	7.6%
33791	Mattress Manufacturing	119	232	113	6.9%
	31-33 Man.	9,056	11,652	2,597	2.6%
42312	Motor Vehicle Supplies and New Parts	702	829	127	1.7%
42313	Tire and Tube Merchant Wholesalers	148	249	101	5.3%
42343	Computer and Computer Peripheral	122	207	85	5.4%
42351	Metal Service Centers and Other Metal	419	545	126	2.7%
42361	Electrical Apparatus and Equipment,	344	413	70	1.9%
42382	Farm and Garden Machinery and	534	590	56	1.0%
42399	Other Miscellaneous Durable Goods	91	147	56	4.9%
42421	Drugs and Druggists' Sundries Merchant	220	337	117	4.4%
42442	Packaged Frozen Food Merchant	137	199	62	3.8%
42443	Dairy Product (except Dried or Canned)	112	162	51	3.8%
42446	Fish and Seafood Merchant Wholesalers	87	156	70	6.1%
42448	Fresh Fruit and Vegetable Merchant	1,469	1,947	478	2.9%
42449	Other Grocery and Related Products	1,858	2,697	839	3.8%
42451	Grain and Field Bean Merchant	216	327	111	4.2%
42481	Beer and Ale Merchant Wholesalers	464	529	65	1.3%
42482	Wine and Distilled Alcoholic Beverage	230	404	174	5.8%
42491	Farm Supplies Merchant Wholesalers	1,048	1,160	112	1.0%
42512	Wholesale Trade Agents and Brokers	1,108	1,448	340	2.7%
	42 Wholesale	9,307	12,345	3,037	2.9%

NAICS	INDUSTRY	2015 JOBS	2025 PROJECTED	15-25 CHANGE	15-25 ANNUAL GROWTH RATE
44111	New Car Dealers	2,573	2,702	130	0.5%
44112	Used Car Dealers	513	839	326	5.0%
44131	Automotive Parts and Accessories Stores	1,329	1,611	282	1.9%
44229	All Other Home Furnishings Stores	402	550	148	3.2%
44314	Electronics Stores	1,366	2,052	685	4.2%
44411	Home Centers	1,481	1,846	365	2.2%
44413	Hardware Stores	501	595	94	1.7%
44511	Supermarkets and Other Grocery (except	5,937	6,916	979	1.5%
44521	Meat Markets	178	229	51	2.6%
44531	Beer, Wine, and Liquor Stores	358	451	94	2.4%
44611	Pharmacies and Drug Stores	1,993	2,304	311	1.5%
44612	Cosmetics, Beauty Supplies, and Perfume	313	508	194	5.0%
44619	All Other Health and Personal Care Stores	185	249	63	3.0%
44812	Women's Clothing Stores	804	1,219	415	4.2%
44813	Children's and Infants' Clothing Stores	169	317	148	6.5%
44814	Family Clothing Stores	1,104	1,383	280	2.3%
44815	Clothing Accessories Stores	96	161	65	5.3%
44821	Shoe Stores	460	570	110	2.2%
45111	Sporting Goods Stores	631	803	173	2.4%
45112	Hobby, Toy, and Game Stores	389	495	106	2.4%
45211	Discount Department Stores	3,582	4,404	822	2.1%
45291	Warehouse Clubs and Supercenters	2,309	3,717	1,408	4.9%
45299	All Other General Merchandise Stores	1,229	1,676	447	3.1%
45322	Gift, Novelty, and Souvenir Stores	515	659	144	2.5%
45331	Used Merchandise Stores	384	446	62	1.5%
45391	Pet and Pet Supplies Stores	301	385	84	2.5%
	44-45 Retail	29,102	37,089	7,987	2.5%
48412	General Freight Trucking, Long-Distance,	902	1,143	241	2.4%
48422	Specialized Freight (except Used Goods)	1,265	1,726	461	3.2%
48423	Specialized Freight (except Used Goods)	334	557	223	5.3%
48599	Special Needs Transportation	301	487	186	4.9%
48841	Motor Vehicle Towing	273	395	122	3.8%
48849	Other Support Activities for Road	183	327	143	6.0%
48851	Freight Transportation Arrangement	336	421	85	2.3%
48899	Packing and Crating	369	585	216	4.7%
	48 Trans.	3,963	5,641	1,678	3.6%
49211	Couriers and Express Delivery Services	1,112	1,169	57	0.5%
49221	Local Messengers and Local Delivery	118	171	53	3.8%
	49 Warehousing	1,229	1,340	110	0.9%
51512	Television Broadcasting	878	1,103	225	2.3%
51711	Wired Telecommunications Carriers	1,151	1,951	800	5.4%
51791	All Other Telecommunications	26	121	94	16.4%
	51 Information	2,056	3,175	1,119	4.4%

NAICS	INDUSTRY	2015 JOBS	2025 PROJECTED	15-25 CHANGE	15-25 ANNUAL GROWTH RATE
52213	Credit Unions	728	943	215	2.6%
52229	All Other Nondepository Credit	139	206	67	4.0%
52391	Miscellaneous Intermediation	59	112	53	6.7%
52411	Direct Life Insurance Carriers	867	1,003	136	1.5%
52421	Insurance Agencies and Brokerages	2,337	2,797	460	1.8%
52429	Third Party Administration of Insurance	811	1,133	321	3.4%
	52 Fin. And Insr.	4,942	6,194	1,252	2.3%
53113	Lessors of Miniwarehouses and Self-	194	257	63	2.8%
53131	Residential Property Managers	1,239	1,445	206	1.6%
53211	Passenger Car Rental	322	493	171	4.4%
53229	All Other Consumer Goods Rental	178	239	61	3.0%
53231	General Rental Centers	158	245	86	4.5%
53241	Construction, Mining, and Forestry	206	263	57	2.5%
53249	Other Commercial and Industrial	150	217	68	3.8%
	53 R.E. and Leasing	2,447	3,160	713	2.6%
54111	Offices of Lawyers	2,261	2,644	383	1.6%
54121	Offices of Certified Public Accountants	973	1,041	68	0.7%
54121	Tax Preparation Services	329	411	82	2.2%
54121	Other Accounting Services	593	707	114	1.8%
54131	Architectural Services	315	386	71	2.1%
54133	Engineering Services	961	1,132	171	1.7%
54135	Building Inspection Services	80	173	94	8.1%
54138	Testing Laboratories	467	696	229	4.1%
54151	Custom Computer Programming Services	492	563	71	1.4%
54151	Computer Systems Design Services	381	585	204	4.4%
54161	Process, Physical Distribution, and	148	273	125	6.3%
54161	Other Management Consulting Services	578	692	115	1.8%
54169	Other Scientific and Technical Consulting	803	1,030	226	2.5%
54171	Research and Development in the Physical,	134	202	67	4.2%
54189	Other Services Related to Advertising	503	640	137	2.4%
54191	Marketing Research and Public Opinion	200	251	51	2.3%
54194	Veterinary Services	500	592	92	1.7%
	54 Prof.,Sci., Tech.	9,716	12,016	2,300	2.1%
56121	Facilities Support Services	395	803	407	7.3%
56131	Employment Placement Agencies	208	795	587	14.4%
56132	Temporary Help Services	6,155	8,461	2,305	3.2%
56142	Telemarketing Bureaus and Other Contact	1,737	3,055	1,318	5.8%
56152	Tour Operators	90	254	164	10.9%
56161	Security Guards and Patrol Services	2,322	2,498	176	0.7%
56171	Exterminating and Pest Control Services	457	539	82	1.7%
56172	Janitorial Services	1,301	1,397	96	0.7%
56174	Carpet and Upholstery Cleaning Services	138	204	66	4.0%
56179	Other Services to Buildings and Dwellings	295	385	90	2.7%

NAICS	INDUSTRY	2015 JOBS	2025 PROJECTED	15-25 CHANGE	15-25 ANNUAL GROWTH RATE
56192	Convention and Trade Show Organizers	488	656	168	3.0%
56199	All Other Support Services	298	357	59	1.8%
56211	Solid Waste Collection	375	428	53	1.3%
56211	Other Waste Collection	178	280	102	4.6%
56292	Materials Recovery Facilities	155	227	72	3.9%
56299	All Other Miscellaneous Waste	61	112	50	6.2%
	56 Admin,Support,Waste	14,653	20,450	5,797	3.4%
61111	Elementary and Secondary Schools	28,040	30,916	2,875	1.0%
61131	Colleges, Universities, and Professional	11,089	12,536	1,447	1.2%
61151	Cosmetology and Barber Schools	95	165	70	5.6%
61151	Other Technical and Trade Schools	179	289	110	4.9%
61169	Exam Preparation and Tutoring	561	853	292	4.3%
61171	Educational Support Services	213	286	74	3.0%
	61 Education	40,177	45,044	4,867	1.2%
62111	Offices of Physicians (except Mental Health	7,802	9,622	1,821	2.1%
62121	Offices of Dentists	2,330	2,516	187	0.8%
62132	Offices of Optometrists	498	777	279	4.6%
62133	Offices of Mental Health Practitioners	291	398	107	3.2%
62134	Offices of Physical, Occupational and	544	704	161	2.6%
62141	Family Planning Centers	151	207	56	3.2%
62149	HMO Medical Centers	1,383	2,310	927	5.3%
62149	Kidney Dialysis Centers	310	422	111	3.1%
62151	Diagnostic Imaging Centers	320	501	181	4.6%
62161	Home Health Care Services	1,134	1,597	463	3.5%
62191	Ambulance Services	601	697	96	1.5%
62211	General Medical and Surgical Hospitals	13,624	15,497	1,873	1.3%
62311	Nursing Care Facilities (Skilled Nursing	3,713	3,993	280	0.7%
62331	Continuing Care Retirement Communities	728	1,002	273	3.2%
62331	Assisted Living Facilities for the Elderly	1,162	1,349	187	1.5%
62411	Child and Youth Services	646	889	243	3.2%
62412	Services for the Elderly and Persons with	14,213	22,056	7,844	4.5%
	62 Health	49,448	64,537	15,089	2.7%
71121	Sports Teams and Clubs	352	422	70	1.8%
71213	Zoos and Botanical Gardens	161	244	83	4.3%
71321	Casinos (except Casino Hotels)	564	712	148	2.4%
71399	All Other Amusement and Recreation	554	707	152	2.5%
	71 Arts, Enter., Rec.	1,631	2,084	453	2.5%
72111	Hotels (except Casino Hotels) and Motels	1,442	1,545	103	0.7%
72121	Recreational and Vacation Camps (except	139	222	83	4.8%
72231	Food Service Contractors	474	560	86	1.7%
72232	Caterers	707	955	248	3.0%
72251	Full-Service Restaurants	11,051	13,047	1,996	1.7%
72251	Limited-Service Restaurants	11,622	13,584	1,962	1.6%

NAICS	INDUSTRY	2015 JOBS	2025 PROJECTED	15-25 CHANGE	15-25 ANNUAL GROWTH RATE
72251	Snack and Nonalcoholic Beverage Bars	1,642	1,967	324	1.8%
	72 Accomodations and Food	27,078	31,879	4,802	1.6%
81111	General Automotive Repair	958	1,198	240	2.3%
81112	Automotive Body, Paint, and Interior	566	637	72	1.2%
81119	Car Washes	588	918	330	4.5%
81119	All Other Automotive Repair and	155	273	118	5.8%
81121	Other Electronic and Precision Equipment	102	178	76	5.7%
81131	Commercial and Industrial Machinery and	622	816	194	2.7%
81211	Nail Salons	246	428	181	5.7%
81233	Linen Supply	347	401	55	1.5%
81233	Industrial Launderers	474	560	86	1.7%
81291	Pet Care (except Veterinary) Services	163	255	92	4.6%
81311	Religious Organizations	4,787	5,282	495	1.0%
81321	Grant-making Foundations	712	1,010	299	3.6%
81321	Voluntary Health Organizations	205	329	124	4.8%
81393	Labor Unions and Similar Labor	305	384	79	2.3%
	81 Other Svcs.	10,229	12,669	2,440	2.2%
90299	State Govt, Excl Educ and Hospitals	4,949	5,143	195	0.4%
90399	Local Govt, Excl Educ and Hospitals	15,851	16,942	1,092	0.7%
	90 Public	20,799	22,086	1,286	0.6%
99999	Unclassified Industry	950	1,065	115	1.1%
	99 Unclass.	950	1,065	115	1.1%

Source: Applied Development Economics, based on EMSI Q4 2015 QCEW and Non-QCEW Industry Employment Data Set (internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T4r)

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 Fresno 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 and tourism industries.

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 poultry processing (NAICS 311615), animal slaughtering

(NAICS 311611), meat processed from carcasses (NAICS 311612), wineries (NAICS 312130), corrugated and solid fiber box (NAICS 322211), perishable prepared foods (NAICS 311991), and wood containers and pallets (NAICS 321920). In addition, the agriculture related distribution (logistics) sector is projected to add about 3,900 jobs over the next ten years.

The Health and Wellness cluster is projected to add almost 15,400 jobs by 2025 (Table 6). Of the 15,400 new jobs, almost 6,800 (44 percent) will occur in the Health Care – Delivery sub-cluster. Within this sub-cluster, the number of jobs in hospitals is projected to increase by 1,800 new jobs, with another 900 new jobs projected for services to elderly and disabled persons. 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 A-6 and A-7 for detail on industries with lower job projections).

Table 6 — Employment Projections by Industry Clusters: Fresno County: 2015 - 2025

NAICS	2015 JOBS	2025 PROJECTED	15-25 CHANGE	15-25 ANNUAL GROWTH RATE
Total	271,327	312,104	40,776	1.4%
Energy	21,288	26,079	4,790	2.1%
Manufacturing	6,577	6,069	-509	-0.8%
Health and Wellness	59,363	74,796	15,434	2.3%
Agriculture	103,731	111,012	7,281	0.7%
Water Flow Technology	2,894	3,147	253	0.8%
Logistics	10,228	11,841	1,613	1.5%
Retail	37,249	43,465	6,216	1.6%
Accommodations and Food Services	28,026	32,926	4,901	1.6%
Heavy Construction	1,971	2,769	798	3.5%

Source: Applied Development Economics, based on EMSI Q4 2015 QCEW and Non-QCEW Industry Employment. Note: Energy Cluster excludes employment data for NAICS 541 (Professional, Scientific and Technical), Health and Wellness Cluster excludes employment data for NAICS 9012 (Military); Manufacturing Cluster is only for "manufacturing – other" industries (internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T5r)

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 fluid milk manufacturing (NAICS 311511), dried and dehydrated food manufacturing (NAICS 311423), commercial bakeries (311812), and fruit and vegetable canning (NAICS 311421).

Table 7 — Industries Within Various Clusters That Are Expected to Decline Significantly Between 2015 and 2025: Fresno County

CLUSTER	NAICS	INDUSTRY	2015 JOBS	2025 PROJECTED	15-25 CHANGE	15-25 ANNUAL GROWTH RATE	RANK
Ag -- Distribution	445299	All Other Specialty Food Stores	210	149	-60	-3.3%	33
Ag -- Distribution	493110	General Warehousing and	872	725	-146	-1.8%	16
Ag -- Distribution	424410	General Line Grocery Merchant	211	24	-186	-19.5%	12
Ag -- Distribution	481111	Scheduled Passenger Air	363	144	-219	-8.8%	8
Ag -- Processing	311811	Retail Bakeries	198	116	-82	-5.2%	26
Ag -- Processing	311511	Fluid Milk Manufacturing	162	3	-159	-32.9%	15
Ag -- Processing	311812	Commercial Bakeries	237	41	-196	-16.1%	10
Ag -- Processing	311423	Dried and Dehydrated Food	1,036	742	-294	-3.3%	6
Ag -- Processing	311421	Fruit and Vegetable Canning	1,278	902	-376	-3.4%	2
Ag -- Production	112000	Animal Production and	2,173	2,030	-143	-0.7%	18
Ag -- Support	444220	Nursery, Garden Center, and	205	143	-62	-3.5%	32
Ag -- Support	444210	Outdoor Power Equipment	82	20	-62	-13.3%	31
Ag -- Support	333111	Farm Machinery and	417	348	-68	-1.8%	28
Ag -- Support	115111	Cotton Ginning	74	3	-71	-27.4%	27
Ag -- Support	115112	Soil Preparation, Planting, and	1,216	1,118	-99	-0.8%	25
Ag -- Support	522292	Real Estate Credit	203	43	-161	-14.5%	14
Ag -- Support	561110	Office Administrative Services	629	302	-327	-7.1%	4
Ag -- Support	551114	Corporate, Subsidiary, and	2,240	1,468	-772	-4.1%	1
Energy	221111	Hydroelectric Power	119	0	-119	-100.0%	20
Energy	221210	Natural Gas Distribution	310	3	-307	-37.1%	5
Health - Delivery	623210	Residential Intellectual and	757	658	-99	-1.4%	24
Health - Delivery	623990	Other Residential Care	580	359	-222	-4.7%	7
Logistics --	485410	School and Employee Bus	166	63	-104	-9.3%	22
Logistics --	493110	General Warehousing and	872	725	-146	-1.8%	16
Logistics --	481111	Scheduled Passenger Air	363	144	-219	-8.8%	8
Manufacturing --	336214	Travel Trailer and Camper	54	3	-51	-25.1%	37
Manufacturing --	339999	All Other Miscellaneous	55	3	-52	-25.3%	36
Manufacturing --	332813	Electroplating, Plating,	111	57	-54	-6.5%	35
Manufacturing --	321911	Wood Window and Door	277	220	-56	-2.3%	34
Manufacturing --	327320	Ready-Mix Concrete	106	3	-103	-30.0%	23
Manufacturing --	326199	All Other Plastics Product	170	52	-118	-11.2%	21
Manufacturing --	337110	Wood Kitchen Cabinet and	127	3	-124	-31.2%	19
Manufacturing --	327211	Flat Glass Manufacturing	186	3	-183	-33.8%	13
Manufacturing --	323111	Commercial Printing (except	230	36	-193	-16.8%	11
Manufacturing --	334220	Radio and Television	1,009	656	-353	-4.2%	3
Water Flow	333111	Farm Machinery and	417	348	-68	-1.8%	28
Heavy Construction	333111	Farm Machinery and	417	348	-68	-1.8%	28

Source: Applied Development Economics, based on EMSI Q4 2015 QCEW and Non-QCEW Industry Employment Data. (internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T6r)

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 140,400 openings are projected between 2015 and 2025, of which approximately 50,100 would be due to new job growth.

Table 8 — Annual Opening to Number of Unemployed Who Satisfy Minimum Educational Requirements by Occupation: Fresno County

	Annual Openings	Unemployed Whose Educational Attainment Matches Occupational Requirement	Part-Time Labor Whose Educational Attainment Matches Occupational Requirement
Total	14,467	21,596	63,420
53 Transportation and Material Moving	1,189	3,661	7,215
51 Production	490	944	1,947
49 Installation, Maintenance, and Repair	540	332	1,046
47 Construction and Extraction	434	2,307	3,552
45 Farming, Fishing, and Forestry	1,256	2,166	3,912
43 Office and Administrative Support	1,964	3,297	8,196
41 Sales and Related	1,716	1,506	7,071
39 Personal Care and Service	604	1,719	4,485
37 Building and Maintenance	354	793	3,594
35 Food Preparation and Serving Related	1,696	1,756	6,039
33 Protective Service	299	274	915
31 Healthcare Support	466	485	1,078
29 Healthcare Practitioners and Technical	770	203	2,628
27 Arts, Enter. and Media	103	99	789
25 Education, Training, and Library	906	777	6,201
23 Legal	65	90	198
21 Community and Social Services	363	51	723
19 Life, Physical, and Social Science	94	0	201
17 Architecture and Engineering	74	41	261
15 Computer and Mathematical	129	258	414
13 Business and Financial Operations	430	398	1,114
11 Management	525	439	1,841

Source: Applied Development Economics, based on EMSI Annual Openings Q4 2015 QCEW and non-QCEW and US Census ACS 3-Year Sample 2012-2014 (from iPUMS) (internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T7r)

Of the projected 140,400 openings over the next ten years, 45,800 are in occupations that will increase in numbers by 50 or more jobs. On average, these occupations command an hourly wage of \$17.11 (Table 9). The table below also shows the range in hourly pay, adjusted for educational attainment. Positions requiring a high school diploma and/or GED pay, on average, \$17.06 an hour, with hourly pay ranging for these growing occupation positions going from a low of \$13.59 to a high of \$21.92. At \$35.66 an hour, positions requiring at least an AA offer hourly pay rates that, on average, are twice that of pay rates for occupations requiring only a high school diploma.

Table 9 — Summary Education and Training Requirements for Sectors in which New Jobs are Expected to Grow By At Least 50

JOB CHANGE	EDUCATION	MEDIAN	HOURLY RANGE (25TH-50TH-75TH)
45,793	All Expected to Grow By 50+	\$17.11	\$13.81 --- \$17.11 --- \$22.46
18,200	01 Less than HS	\$10.56	\$9.45 --- \$10.56 --- \$13.50
14,382	02 HS\GED	\$17.06	\$13.59 --- \$17.06 --- \$21.92
657	03 Some college no degree	\$17.36	\$13.47 --- \$17.36 --- \$21.74
3,688	04 Postsecondary non-deg	\$17.69	\$14.77 --- \$17.69 --- \$21.59
1,753	05 Associate's degree	\$35.66	\$28.64 --- \$35.66 --- \$44.95
7,113	06 BA or higher	\$33.24	\$25.64 --- \$33.24 --- \$41.21

Source: Applied Development Economics, based on EMSI Occupational Data Q4 2015 QCEW and non-QCEW (internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\EMSI-Q4\02_OPENINGS\05_FRESNO-COUNTY--QCEW-NonQCEW--OPENINGS--Q4.xlsx)

LABOR FORCE CHARACTERISTICS

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:

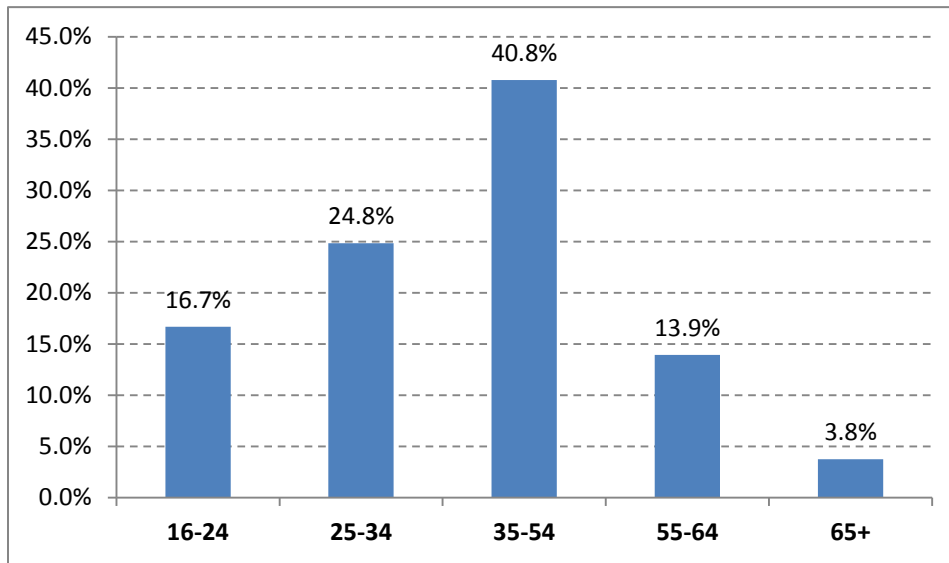
- Age
- Educational Attainment
- Employment status: full time, part time, unemployed
- Occupation

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

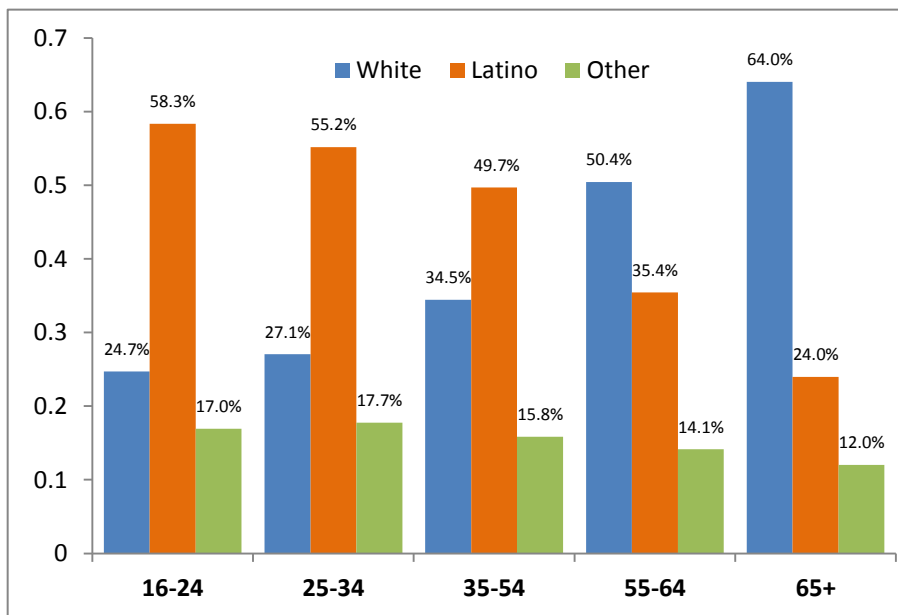
The labor force in Fresno County is generally concentrated in the younger age groups, with 17 percent in the 16-24 age group, nearly 25 percent of the 25-34 age group (Figure 2). The prime working age group of 35-54 has 41 percent of the workforce, which is less concentrated on a year to year basis than 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)



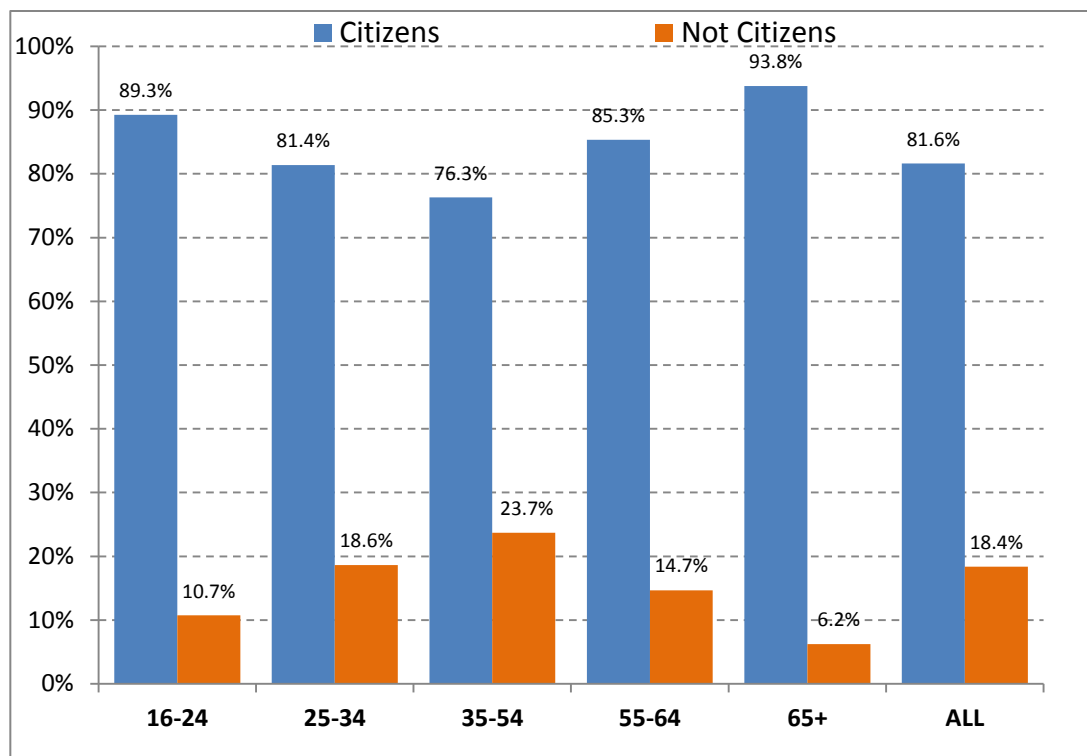
As shown in Figure 3, younger age groups tend to have a higher proportion of Latino workers while older age groups have higher percentages of white workers. Of the labor force between 16 and 24, almost 58 percent are Latino, while almost 25 percent White. Similarly for the 25-34 age cohort, 55 percent are Latino and 27 percent are White. At almost 50 percent of the 35 to 54 workforce, White comprise the largest segment of prime working-age adults in the labor force, with Latinos numbering 35 percent. At almost 50 percent of the 35 to 54 workforce, White comprise the largest segment of prime working-age adults in the labor force, with Latinos numbering 35 percent.

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



Non-citizen workers constitute 18.4 percent of the workforce in Fresno County, though the rate varies with age (Figure 4). At 23.7 percent of the prime working age (35 to 54) labor force, non-citizens are more concentrated in these two sub-populations relative to their overall concentration level, i.e. 18.4 percent. In contrast, non-citizens comprise only 13.4 percent of the labor force between 16 and 24.

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



UNEMPLOYMENT

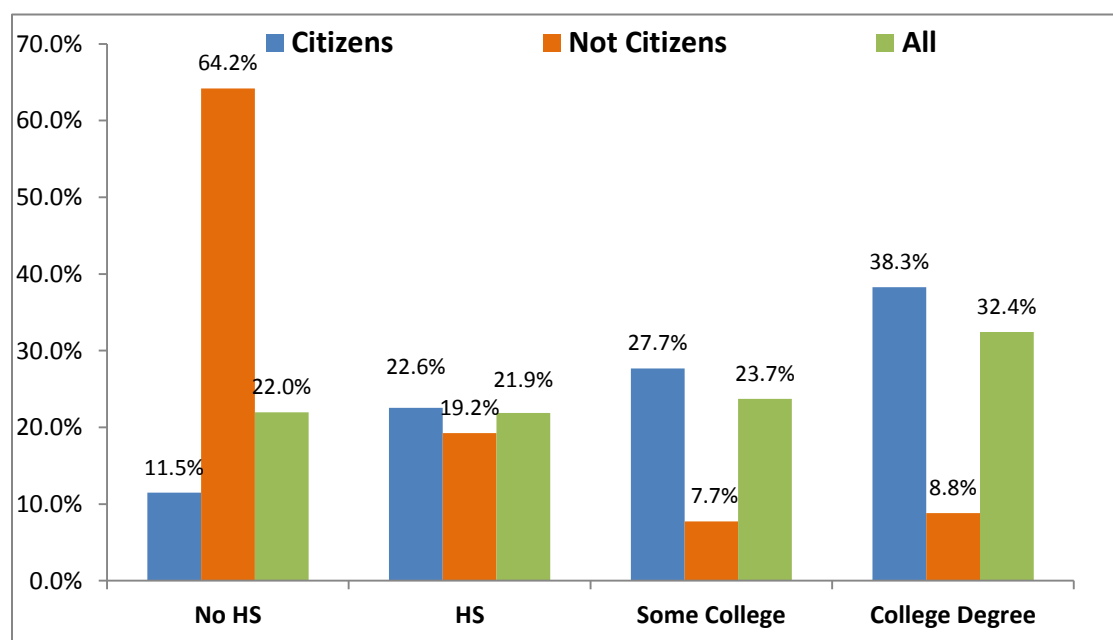
In Fresno County, almost 50 percent of the labor force is Latino, at 213,546 persons out of a labor force of 430,965 (see Table 8 at the end of the Chapter). Thirty-four percent is White. Unemployment for Latino workers 25 and older is 13.2 percent compared to 8.8 percent for Whites. Unemployment is 14.4 percent for workers in other racial and ethnic groups. Unemployment affects workers 25 and older with no college degree much more, at 14.4 percent, than those with a college degree (6.3 percent). Veterans' unemployment level is at 11.9 percent. Disabled workers have relatively high unemployment, at nearly 13.2 percent.

EDUCATIONAL ATTAINMENT

The Fresno County workforce exhibits comparable educational attainment to the rest of the San Joaquin Valley region. Among US citizens in the workforce, only 12 percent do not have a high school diploma or GED and 66 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, 64 percent of the non-citizens 25 and over in the labor force have not obtained a high

school diploma or a GED. Nineteen percent of non-citizens in the labor force have earned a high school diploma or equivalent, which is only three percentage points lower than the rate for citizens (i.e. 22.6 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 85 percent Latino; almost 38 percent of all Latinos in the workforce have no high school diploma or GED. It is also important to note that Latinos have earned high school diplomas and GEDs at rates slightly surpassing Whites and Others, at 23.3 percent versus 20.1 percent (Whites) and 21.7 percent (Others). However, Whites and Others are over two times more likely than Latinos to have earned a college degree: 17.6 percent of the Latinos in the labor force have earned a college degree versus 47 percent for Whites and 42 percent for Others (Figure 6).

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



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 16.6 percent versus 6.3 percent. Of the persons with a college degree, almost 68 percent work full-time, resulting in a full-time employment rate that is 20 percentage points greater than the rate for persons without a high school diploma (i.e. 67.8 percent versus 46.1 percent).

Figure 6 – Educational Attainment by Race/Ethnicity

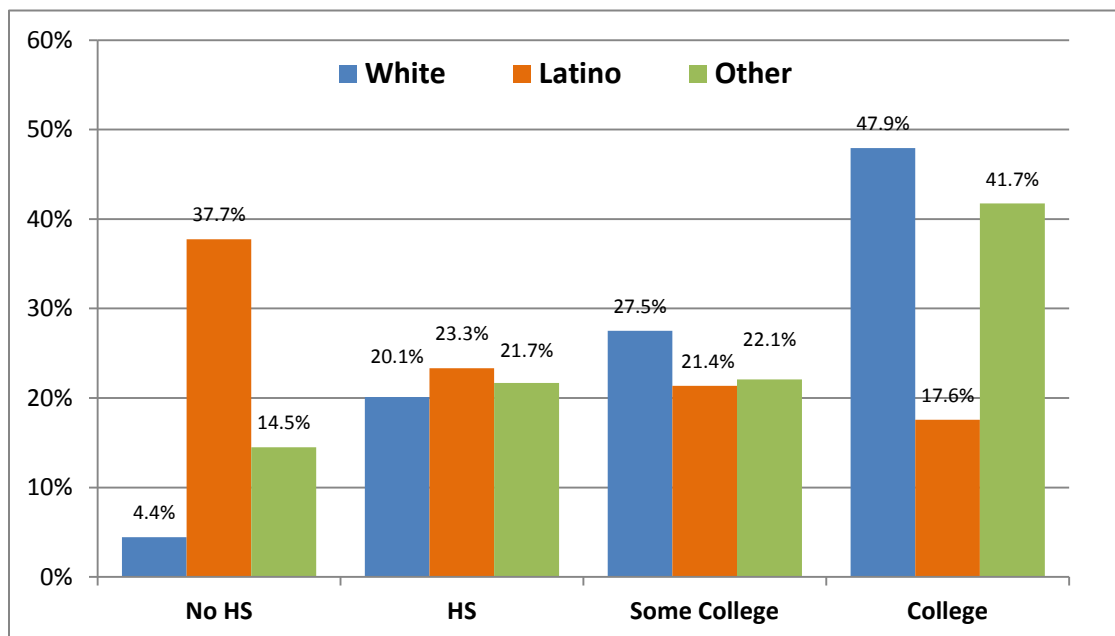
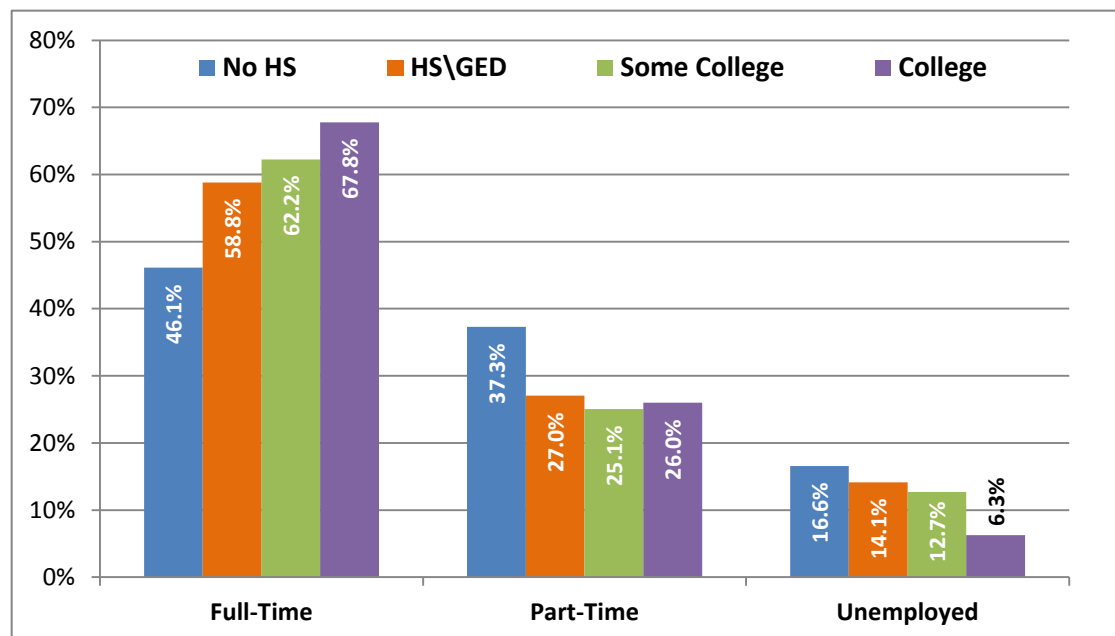
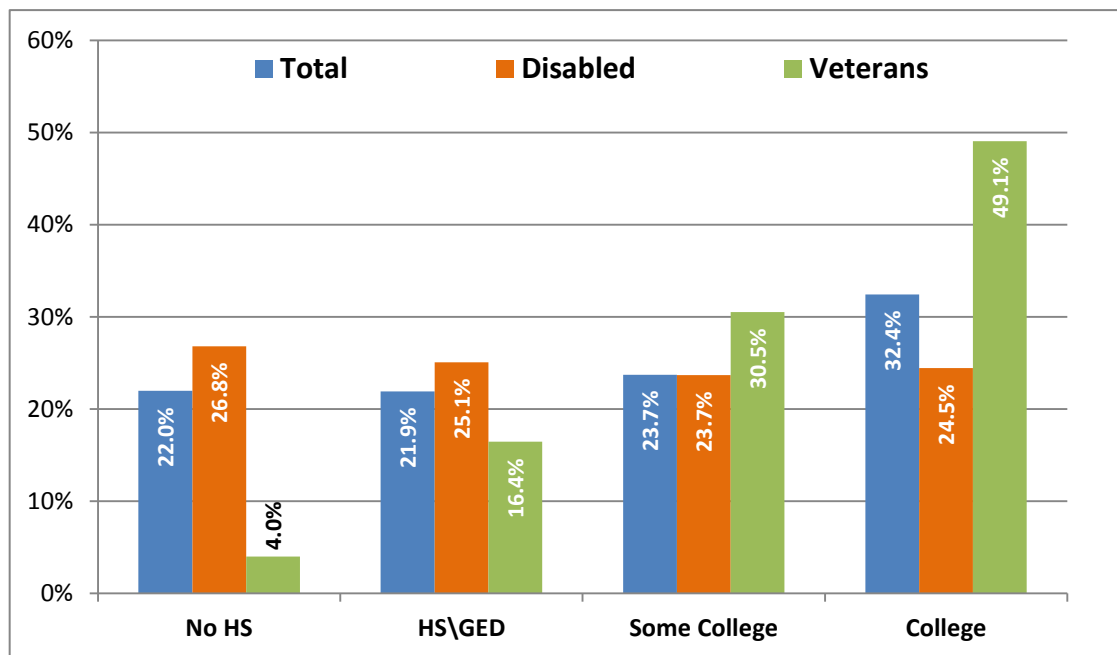


Figure 7 – Employment Status by Educational Attainment



Veterans in Fresno County tend to have high levels of overall educational attainment, with four percent not achieving a high school diploma (Figure 8). For the workforce as a whole, 22.0 percent do not have a high school diploma or equivalent degree. Among disabled workers, however, nearly 26.8 percent do not have a high school diploma.

Figure 8 – Educational Attainment for Disabled Workers and Veterans



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

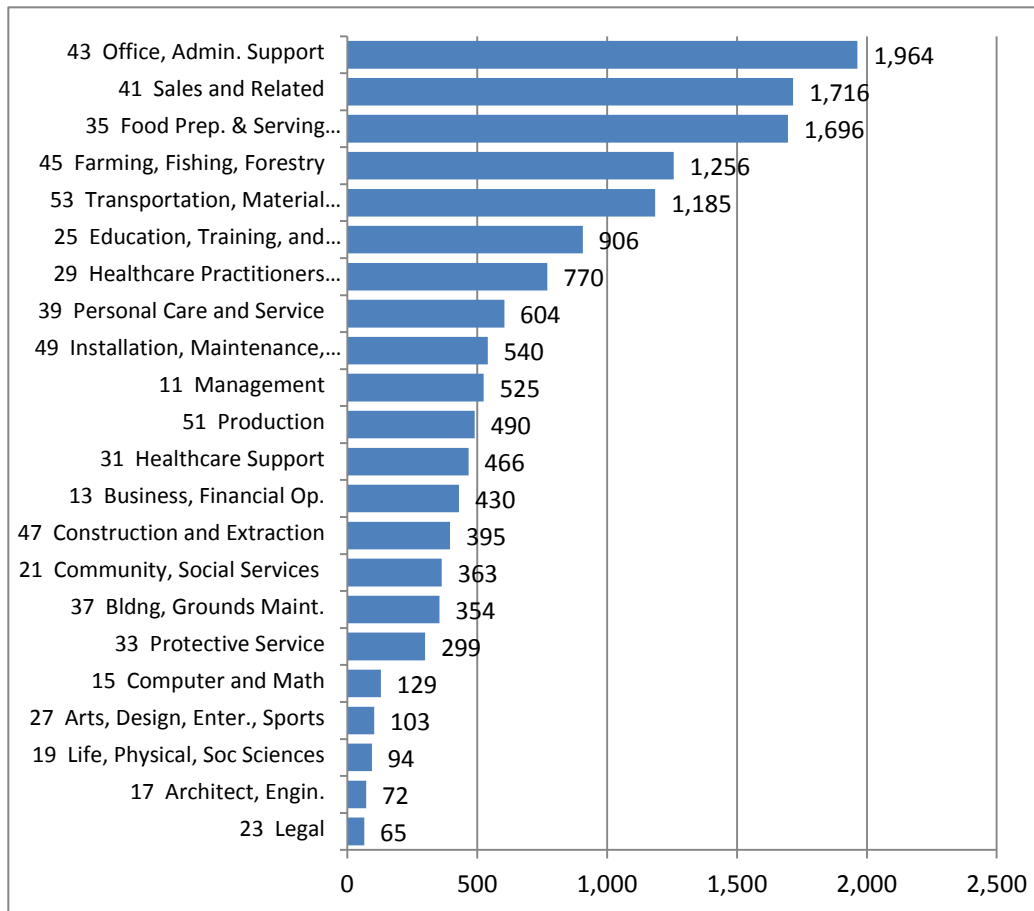


Figure 10 - Number of Unemployed and Part-Time Labor Force by Major Occupational Group

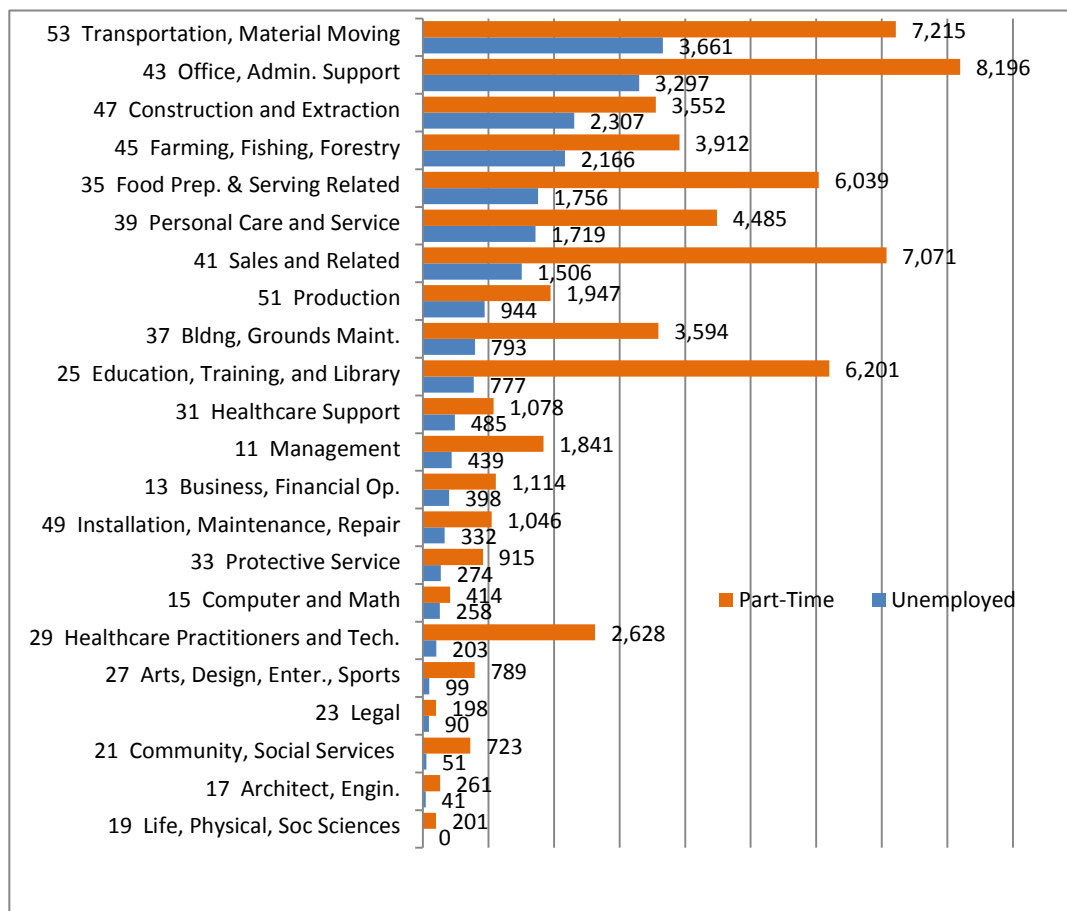


Figure 11 groups job openings by three main categories of occupational level: managers and supervisory personnel; workers with specialty or higher level skills; and support positions that are more entry level or have a lower required skill set. At this level, the unemployed and part time workforce combined 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 in demand by employers.

Figure 11 – Part Time and Unemployment Workers by Occupational Class Compared to Annual Openings: Only Persons Whose Educational Attainment Commensurate With Opening Position: Fresno County

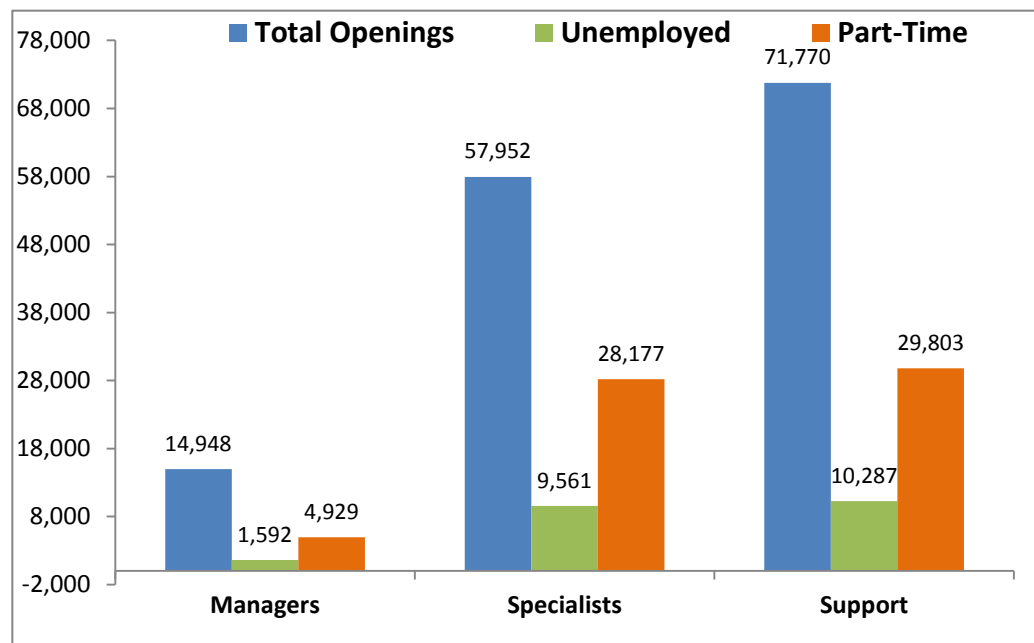


Figure 12 shows the educational level for the unemployed and part time workforce, categorized by occupational background. This figure tracks all unemployed and part-time workers, not just those who minimally qualify for the annually open positions. There are relatively few managers who have not achieved a high school diploma and the greatest number do have a high school diploma; of the 48,118 persons with no high school diploma, 2,120 (4 percent) are managers. Interestingly, the 2,120 managers with no high school diploma represent 14 percent of all managers (2,120 out of 15,059), 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 (22,570), or have had some college courses (17,397). Almost 14,300 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: Fresno County

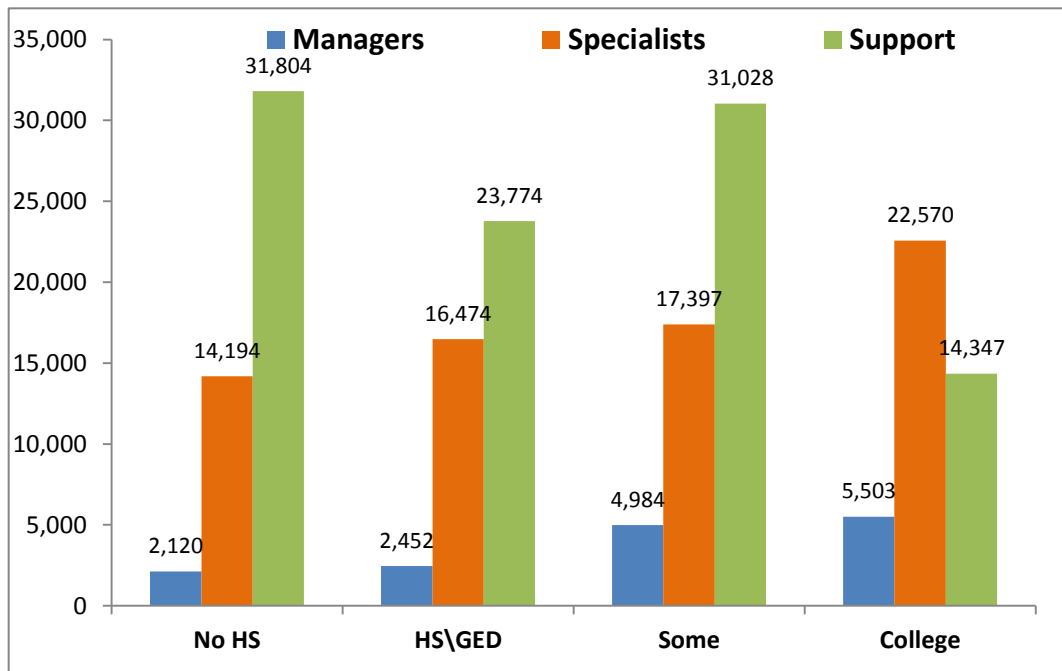


Table 10 — Summary of Overall Labor Force Trends for Select Demographic Categories (Persons 16 and Over): Fresno County

	LABOR FORCE TRENDS BY RACE AND ETHNICITY	LABOR FORCE TRENDS BY GENDER	LABOR FORCE TRENDS BY CITIZENSHIP STATUS	LABOR FORCE TRENDS BY EDUCATIONAL ATTAINMENT	LABOR FORCE TRENDS BY VETERAN STATUS	LABOR FORCE TRENDS BY DISABILITY STATUS
	White	Women	Citizen	College Degree (25 and Over)	Veterans	At least One Disability
Labor Force	147,965	196,898	351,792	125,471	17,976	28,567
Unemployed	14,759	27,937	46,756	8,814	2,208	6,600
Unemployment Rate	10.0%	14.2%	13.3%	7.0%	12.3%	23.1%
	Latino	Men	Not Citizen	No College Degree (25 and Over)	Not Veterans	No Reported Disability
Labor Force	213,546	234,067	79,173	305,494	411,469	402,398
Unemployed	31,814	30,200	11,381	49,323	55,015	51,538
Unemployment Rate	14.9%	12.9%	14.4%	16.1%	13.4%	12.8%
	Other				Veteran Status Unknown	
Labor Force	69,454				1,520	
Unemployed	11,565				915	
Unemployment Rate	16.7%				60.2%	
	Total	Total	Total	Total (25 and Over)	Total	Total
Labor Force	430,965	430,965	430,965	359,134	430,965	430,965
Unemployed	58,138	58,138	58,138	42,292	58,138	58,138
Unemployment Rate	13.5%	13.5%	13.5%	11.8%	13.5%	13.5%

Table 11 — Population by Age, Race\Ethnicity, and Educational Attainment: Fresno County

	0-15	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL
Total	250,228	56,371	80,305	72,779	66,419	230,455	96,759	103,454	956,769
White	47,678	11,422	18,869	18,966	17,818	76,744	45,989	60,188	297,674
Did not earn HSD\GED	39,584	6,006	1,268	833	1,422	5,115	2,537	7,672	64,437
HSD\GED	0	1,736	5,037	4,397	3,715	17,415	9,352	15,207	56,859
Some college -- not attending	0	292	3,066	4,268	4,326	19,261	12,919	16,172	60,304
Some college -- attending	28	3,387	5,379	2,288	1,023	1,519	121	105	13,850
AA	0	0	1,521	1,754	2,174	8,802	4,992	4,910	24,152
BA+	0	0	2,598	5,426	5,158	24,632	16,069	16,122	70,005
NA	8,066	0	0	0	0	0	0	0	8,066
Latino	158,760	34,373	45,322	39,439	37,185	114,809	34,958	28,564	493,409
Did not earn HSD\GED	128,754	22,246	8,465	10,416	13,013	53,450	16,561	18,397	271,301
HSD\GED	0	5,342	13,523	10,656	10,557	25,063	7,198	4,418	76,757
Some college -- not attending	0	532	8,396	8,738	6,056	18,251	5,981	3,025	50,978
Some college -- attending	33	6,160	10,158	3,029	1,419	1,848	202	63	22,913
AA	0	93	3,163	3,334	3,290	6,798	1,796	1,103	19,577
BA+	0	0	1,618	3,266	2,850	9,400	3,219	1,557	21,910
NA	29,973	0	0	0	0	0	0	0	29,973
Other	43,790	10,577	16,114	14,374	11,416	38,903	15,811	14,702	165,687
Did not earn HSD\GED	35,814	6,725	2,363	1,829	1,459	8,070	6,057	5,509	67,826
HSD\GED	0	1,717	3,673	3,528	3,104	8,822	2,753	2,832	26,430
Some college -- not attending	0	268	2,713	3,198	1,786	7,596	2,498	2,369	20,428
Some college -- attending	0	1,785	5,074	1,004	656	585	39	32	9,175
AA	0	82	1,077	1,520	1,546	3,095	905	1,262	9,486
BA+	0	0	1,214	3,295	2,865	10,735	3,559	2,697	24,365
NA	7,976	0	0	0	0	0	0	0	7,976

Table 12 — Labor Force by Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	16,272	55,559	55,905	51,185	175,744	60,089	16,208	359,134	430,965
White	3,586	14,160	14,822	14,155	60,560	30,303	10,378	130,219	147,965
Did not earn HSD\GED	NA	NA	568	866	2,308	1,273	779	5,793	NA
HSD\GED	NA	NA	2,993	2,899	13,034	5,579	1,670	26,175	NA
Some college -- not attending	NA	NA	3,647	3,452	14,783	8,068	2,467	32,418	NA
Some college -- attending	NA	NA	1,433	791	1,086	46	62	3,419	NA
AA	NA	NA	1,510	1,782	7,367	3,227	1,248	15,134	NA
BA+	NA	NA	4,671	4,365	21,982	12,110	4,152	47,280	NA
Latino	9,643	32,265	30,750	28,358	87,360	21,287	3,882	171,638	213,546
Did not earn HSD\GED	NA	NA	6,607	8,868	37,571	9,790	1,942	64,778	NA
HSD\GED	NA	NA	8,719	7,733	18,823	4,080	686	40,041	NA
Some college -- not attending	NA	NA	7,453	5,218	15,225	3,675	614	32,185	NA
Some college -- attending	NA	NA	2,127	1,109	1,129	120	18	4,502	NA
AA	NA	NA	2,798	2,957	6,197	1,163	187	13,303	NA
BA+	NA	NA	3,046	2,473	8,415	2,460	435	16,830	NA
Other	3,043	9,134	10,333	8,672	27,824	8,499	1,948	57,277	69,454
Did not earn HSD\GED	NA	NA	914	848	4,060	2,191	293	8,306	NA
HSD\GED	NA	NA	2,008	2,384	5,945	1,840	237	12,414	NA
Some college -- not attending	NA	NA	2,540	1,366	5,515	1,310	428	11,159	NA
Some college -- attending	NA	NA	707	316	471	0	0	1,494	NA
AA	NA	NA	1,335	1,343	2,571	504	301	6,054	NA
BA+	NA	NA	2,829	2,415	9,262	2,655	689	17,850	NA

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

Table 13 — Part-Time Employed Labor Force by Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	9,518	28,907	19,931	13,694	45,355	16,301	7,015	102,296	140,721
White	2,548	8,072	5,520	3,760	13,423	8,035	4,610	35,348	45,968
Did not earn HSD\GED	NA	NA	390	77	924	640	420	2,451	NA
HSD\GED	NA	NA	1,096	827	2,747	1,403	701	6,774	NA
Some college -- not attending	NA	NA	1,266	956	2,721	2,168	1,149	8,260	NA
Some college -- attending	NA	NA	683	350	192	24	62	1,312	NA
AA	NA	NA	823	672	1,818	950	569	4,832	NA
BA+	NA	NA	1,263	877	5,020	2,849	1,710	11,719	NA
Latino	5,333	15,907	10,914	7,733	25,542	6,162	1,646	51,997	73,237
Did not earn HSD\GED	NA	NA	2,731	3,179	13,839	3,947	850	24,546	NA
HSD\GED	NA	NA	3,059	1,928	5,416	905	215	11,523	NA
Some college -- not attending	NA	NA	2,165	980	2,683	695	262	6,785	NA
Some college -- attending	NA	NA	1,199	206	286	51	0	1,742	NA
AA	NA	NA	585	735	1,765	156	121	3,363	NA
BA+	NA	NA	1,174	705	1,552	408	198	4,038	NA
Other	1,637	4,928	3,497	2,201	6,390	2,104	759	14,951	21,516
Did not earn HSD\GED	NA	NA	397	234	998	651	147	2,428	NA
HSD\GED	NA	NA	557	563	1,207	542	99	2,968	NA
Some college -- not attending	NA	NA	970	410	1,205	205	129	2,919	NA
Some college -- attending	NA	NA	144	38	146	0	0	328	NA
AA	NA	NA	597	543	644	218	129	2,131	NA
BA+	NA	NA	832	413	2,190	488	254	4,178	NA

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

Table 14 — Unemployed Labor Force by Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	5,719	10,126	7,666	7,399	20,023	5,997	1,207	42,292	58,138
White	882	2,418	1,239	1,995	5,558	2,044	624	11,459	14,759
Did not earn HSD\GED	NA	NA	37	523	351	177	22	1,110	NA
HSD\GED	NA	NA	489	396	1,328	503	57	2,773	NA
Some college -- not attending	NA	NA	579	426	1,914	874	273	4,066	NA
Some college -- attending	NA	NA	0	228	473	0	0	701	NA
AA	NA	NA	55	160	555	147	122	1,039	NA
BA+	NA	NA	79	261	937	342	151	1,769	NA
Latino	3,571	5,649	4,404	3,922	11,086	2,802	379	22,594	31,814
Did not earn HSD\GED	NA	NA	1,262	1,549	5,708	1,625	213	10,358	NA
HSD\GED	NA	NA	1,511	1,084	2,693	698	124	6,109	NA
Some college -- not attending	NA	NA	655	632	1,579	216	17	3,099	NA
Some college -- attending	NA	NA	263	95	119	31	0	508	NA
AA	NA	NA	515	434	539	45	0	1,533	NA
BA+	NA	NA	198	129	449	187	24	987	NA
Other	1,266	2,059	2,023	1,482	3,379	1,151	204	8,239	11,565
Did not earn HSD\GED	NA	NA	275	205	644	486	0	1,609	NA
HSD\GED	NA	NA	402	655	1,006	108	52	2,224	NA
Some college -- not attending	NA	NA	461	180	852	189	77	1,759	NA
Some college -- attending	NA	NA	375	258	64	0	0	697	NA
AA	NA	NA	136	43	201	71	0	452	NA
BA+	NA	NA	373	142	612	297	75	1,498	NA

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

Table 15 — Unemployment Rates by Age, Race\Ethnicity, and Educational Attainment: Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	35.1%	18.2%	13.7%	14.5%	11.4%	10.0%	7.4%	11.8%	13.5%
White	24.6%	17.1%	8.4%	14.1%	9.2%	6.7%	6.0%	8.8%	10.0%
Did not earn HSD\GED	NA	NA	6.6%	60.5%	15.2%	13.9%	2.8%	19.2%	NA
HSD\GED	NA	NA	16.3%	13.7%	10.2%	9.0%	3.4%	10.6%	NA
Some college -- not attending	NA	NA	15.9%	12.3%	12.9%	10.8%	11.1%	12.5%	NA
Some college -- attending	NA	NA	0.0%	28.9%	43.5%	0.0%	0.0%	20.5%	NA
AA	NA	NA	3.7%	9.0%	7.5%	4.6%	9.7%	6.9%	NA
BA+	NA	NA	1.7%	6.0%	4.3%	2.8%	3.6%	3.7%	NA
Latino	37.0%	17.5%	14.3%	13.8%	12.7%	13.2%	9.8%	13.2%	14.9%
Did not earn HSD\GED	NA	NA	19.1%	17.5%	15.2%	16.6%	11.0%	16.0%	NA
HSD\GED	NA	NA	17.3%	14.0%	14.3%	17.1%	18.1%	15.3%	NA
Some college -- not attending	NA	NA	8.8%	12.1%	10.4%	5.9%	2.8%	9.6%	NA
Some college -- attending	NA	NA	12.3%	8.6%	10.5%	26.2%	0.0%	11.3%	NA
AA	NA	NA	18.4%	14.7%	8.7%	3.9%	0.0%	11.5%	NA
BA+	NA	NA	6.5%	5.2%	5.3%	7.6%	5.6%	5.9%	NA
Other	41.6%	22.5%	19.6%	17.1%	12.1%	13.5%	10.5%	14.4%	16.7%
Did not earn HSD\GED	NA	NA	30.1%	24.1%	15.9%	22.2%	0.0%	19.4%	NA
HSD\GED	NA	NA	20.0%	27.5%	16.9%	5.9%	22.0%	17.9%	NA
Some college -- not attending	NA	NA	18.2%	13.2%	15.4%	14.5%	18.0%	15.8%	NA
Some college -- attending	NA	NA	53.1%	81.6%	13.6%	NA	NA	46.6%	NA
AA	NA	NA	10.2%	3.2%	7.8%	14.0%	0.0%	7.5%	NA
BA+	NA	NA	13.2%	5.9%	6.6%	11.2%	10.9%	8.4%	NA

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

Table 16 — Unemployment Rates by Age, Gender, and Educational Attainment: Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	35.1%	18.2%	13.7%	14.5%	11.4%	10.0%	7.4%	11.8%	13.5%
Men	36.6%	18.0%	12.6%	13.4%	10.8%	10.0%	5.7%	11.1%	12.9%
Did not earn HSD\GED	NA	NA	17.6%	16.6%	12.4%	15.3%	3.9%	13.7%	NA
HSD\GED	NA	NA	15.0%	15.5%	13.4%	12.1%	3.0%	13.6%	NA
Some college -- not attending	NA	NA	8.7%	10.0%	11.0%	12.5%	11.5%	10.7%	NA
Some college -- attending	NA	NA	12.9%	30.6%	16.1%	0.0%	0.0%	17.0%	NA
AA	NA	NA	12.6%	12.7%	7.2%	7.6%	7.9%	9.0%	NA
BA+	NA	NA	8.1%	5.0%	6.2%	2.7%	4.0%	5.3%	NA
Women	37.0%	17.5%	14.3%	13.8%	12.7%	13.2%	9.8%	13.2%	14.9%
Did not earn HSD\GED	NA	NA	23.6%	30.9%	20.4%	20.2%	13.7%	21.7%	NA
HSD\GED	NA	NA	21.9%	18.1%	13.2%	10.8%	14.4%	14.8%	NA
Some college -- not attending	NA	NA	17.4%	15.2%	13.6%	7.0%	9.2%	13.0%	NA
Some college -- attending	NA	NA	17.3%	23.3%	34.5%	24.3%	0.0%	23.5%	NA
AA	NA	NA	12.4%	9.4%	8.7%	3.6%	6.1%	8.6%	NA
BA+	NA	NA	4.7%	6.4%	4.0%	7.1%	6.1%	5.1%	NA

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

Table 17 — Labor Force by Age, Citizen Status, and Educational Attainment (Persons 16 and over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	16,273	55,559	55,905	51,186	175,745	60,090	16,208	359,134	430,965
Citizen	14,707	49,416	46,644	40,509	134,055	51,266	15,196	287,669	351,792
Did not earn HSD\GED	NA	NA	3,876	4,360	15,992	6,597	2,179	33,004	NA
HSD\GED	NA	NA	11,453	10,618	30,095	10,172	2,541	64,878	NA
Some college -- not attending	NA	NA	12,268	9,247	33,397	12,668	3,434	71,015	NA
Some college – attending	NA	NA	3,918	2,050	2,413	166	80	8,627	NA
AA	NA	NA	5,234	5,833	15,589	4,706	1,737	33,099	NA
BA+	NA	NA	9,895	8,401	36,569	16,956	5,225	77,046	NA
Not Citizen	1,566	6,142	9,262	10,677	41,690	8,824	1,012	71,465	79,173
Did not earn HSD\GED	NA	NA	4,213	6,222	27,948	6,656	835	45,874	NA
HSD\GED	NA	NA	2,267	2,398	7,707	1,327	51	13,751	NA
Some college -- not attending	NA	NA	1,372	789	2,126	384	75	4,746	NA
Some college – attending	NA	NA	349	166	274	0	0	789	NA
AA	NA	NA	410	249	546	188	0	1,392	NA
BA+	NA	NA	651	853	3,090	269	51	4,914	NA

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

Table 18 — Unemployed Labor Force by Age, Citizen Status, and Educational Attainment (Persons 16 and over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	5,719	10,126	7,666	7,399	20,023	5,997	1,207	42,292	58,138
Citizen	5,417	9,229	6,440	5,899	14,210	4,551	1,010	32,111	46,756
Did not earn HSD\GED	NA	NA	1,030	1,403	2,463	1,123	61	6,080	NA
HSD\GED	NA	NA	1,983	1,792	4,007	1,141	210	9,133	NA
Some college -- not attending	NA	NA	1,594	1,086	4,059	1,217	367	8,323	NA
Some college -- attending	NA	NA	583	551	655	31	0	1,821	NA
AA	NA	NA	707	637	1,203	263	122	2,931	NA
BA+	NA	NA	544	430	1,823	776	250	3,822	NA
Not Citizen	302	897	1,226	1,500	5,812	1,446	197	10,182	11,381
Did not earn HSD\GED	NA	NA	545	874	4,239	1,165	174	6,998	NA
HSD\GED	NA	NA	419	343	1,019	169	23	1,973	NA
Some college -- not attending	NA	NA	102	152	286	62	0	602	NA
Some college -- attending	NA	NA	55	30	0	0	0	84	NA
AA	NA	NA	0	0	93	0	0	93	NA
BA+	NA	NA	106	101	175	50	0	432	NA

Table 19 — Labor Force by Citizen Status, Age, and Educational Attainment: Unemployment Rates: Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	35.1%	18.2%	13.7%	14.5%	11.4%	10.0%	7.4%	11.8%	13.5%
Citizen	36.8%	18.7%	13.8%	14.6%	10.6%	8.9%	6.6%	11.2%	13.3%
Did not earn HSD\GED	NA	NA	26.6%	32.2%	15.4%	17.0%	2.8%	18.4%	NA
HSD\GED	NA	NA	17.3%	16.9%	13.3%	11.2%	8.3%	14.1%	NA
Some college -- not attending	NA	NA	13.0%	11.7%	12.2%	9.6%	10.7%	11.7%	NA
Some college -- attending	NA	NA	14.9%	26.9%	27.2%	18.9%	0.0%	21.1%	NA
AA	NA	NA	13.5%	10.9%	7.7%	5.6%	7.0%	8.9%	NA
BA+	NA	NA	5.5%	5.1%	5.0%	4.6%	4.8%	5.0%	NA
Not Citizen	19.3%	14.6%	13.2%	14.1%	13.9%	16.4%	19.5%	14.2%	14.4%
Did not earn HSD\GED	NA	NA	12.9%	14.1%	15.2%	17.5%	20.8%	15.3%	NA
HSD\GED	NA	NA	18.5%	14.3%	13.2%	12.7%	45.5%	14.4%	NA
Some college -- not attending	NA	NA	7.4%	19.2%	13.5%	16.2%	0.0%	12.7%	NA
Some college -- attending	NA	NA	15.7%	17.9%	0.0%	NA	NA	10.7%	NA
AA	NA	NA	0.0%	0.0%	17.0%	0.0%	NA	6.7%	NA
BA+	NA	NA	16.3%	11.9%	5.7%	18.5%	0.0%	8.8%	NA

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

Table 20 — Labor Force by Age, Disability Status, and Educational Attainment (Persons 16 and over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	16,273	55,559	55,905	51,186	175,745	60,090	16,208	359,134	430,965
No Reported Disability	15,544	53,882	53,367	48,255	164,780	53,625	12,946	332,972	402,398
Did not earn HSD\GED	NA	NA	7,567	9,526	40,800	11,646	2,324	71,863	NA
HSD\GED	NA	NA	12,859	12,144	35,375	9,803	1,892	72,073	NA
Some college -- not attending	NA	NA	13,099	9,562	33,453	11,379	2,759	70,253	NA
Some college -- attending	NA	NA	4,145	2,017	2,471	78	19	8,730	NA
AA	NA	NA	5,398	5,918	15,084	4,454	1,465	32,319	NA
BA+	NA	NA	10,299	9,088	37,597	16,265	4,486	77,734	NA
At Least One Disability	729	1,677	2,539	2,931	10,965	6,465	3,262	26,162	28,567
Did not earn HSD\GED	NA	NA	522	1,056	3,140	1,607	690	7,015	NA
HSD\GED	NA	NA	861	872	2,427	1,696	700	6,556	NA
Some college -- not attending	NA	NA	541	474	2,070	1,673	750	5,508	NA
Some college -- attending	NA	NA	122	199	216	88	61	686	NA
AA	NA	NA	246	164	1,051	440	272	2,172	NA
BA+	NA	NA	247	166	2,062	960	790	4,225	NA

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

Table 21 — Unemployed Labor Force by Age, Disability Status, and Educational Attainment (Persons 16 and over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	5,719	10,126	7,666	7,399	20,023	5,997	1,207	42,292	58,138
No Reported Disability	5,180	9,601	7,082	6,327	17,348	4,986	1,012	36,756	51,538
Did not earn HSD\GED	NA	NA	1,436	1,738	5,904	1,863	204	11,144	NA
HSD\GED	NA	NA	1,993	1,920	4,318	1,152	181	9,564	NA
Some college -- not attending	NA	NA	1,677	1,052	3,704	991	350	7,774	NA
Some college -- attending	NA	NA	638	470	579	31	0	1,718	NA
AA	NA	NA	707	637	1,224	204	69	2,840	NA
BA+	NA	NA	632	511	1,619	745	209	3,717	NA
At Least One Disability	539	525	584	1,072	2,674	1,011	195	5,536	6,600
Did not earn HSD\GED	NA	NA	139	539	798	426	32	1,933	NA
HSD\GED	NA	NA	409	216	708	158	52	1,543	NA
Some college -- not attending	NA	NA	18	186	641	288	17	1,151	NA
Some college -- attending	NA	NA	0	111	76	0	0	187	NA
AA	NA	NA	0	0	72	59	53	184	NA
BA+	NA	NA	18	20	379	80	41	538	NA

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

Table 22 — Labor Force by Disability Status, Age, and Educational Attainment: Unemployment Rates: Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	35.1%	18.2%	13.7%	14.5%	11.4%	10.0%	7.4%	11.8%	13.5%
No Reported Disability	33.3%	17.8%	13.3%	13.1%	10.5%	9.3%	7.8%	11.0%	12.8%
Did not earn HSD\GED	NA	NA	19.0%	18.2%	14.5%	16.0%	8.8%	15.5%	NA
HSD\GED	NA	NA	15.5%	15.8%	12.2%	11.8%	9.6%	13.3%	NA
Some college -- not attending	NA	NA	12.8%	11.0%	11.1%	8.7%	12.7%	11.1%	NA
Some college -- attending	NA	NA	15.4%	23.3%	23.4%	40.3%	0.0%	19.7%	NA
AA	NA	NA	13.1%	10.8%	8.1%	4.6%	4.7%	8.8%	NA
BA+	NA	NA	6.1%	5.6%	4.3%	4.6%	4.7%	4.8%	NA
At Least One Disability	37.0%	17.5%	14.3%	13.8%	12.7%	13.2%	9.8%	13.2%	14.9%
Did not earn HSD\GED	NA	NA	26.6%	51.1%	25.4%	26.5%	4.6%	27.6%	NA
HSD\GED	NA	NA	47.5%	24.7%	29.2%	9.3%	7.4%	23.5%	NA
Some college -- not attending	NA	NA	3.4%	39.3%	31.0%	17.2%	2.3%	20.9%	NA
Some college -- attending	NA	NA	0.0%	55.9%	35.3%	0.0%	0.0%	27.3%	NA
AA	NA	NA	0.0%	0.0%	6.9%	13.5%	19.5%	8.5%	NA
BA+	NA	NA	7.2%	12.0%	18.4%	8.3%	5.2%	12.7%	NA

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

Table 23 — Labor Force by Age, Veteran Status, and Educational Attainment (Persons 16 and over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	16,273	55,559	55,905	51,186	175,745	60,090	16,208	359,134	430,965
Not Veterans	16,273	55,124	55,187	49,818	169,124	55,055	12,408	341,592	412,989
Did not earn HSD\GED	NA	NA	8,089	10,476	43,805	13,023	2,785	78,178	NA
HSD\GED	NA	NA	13,532	12,758	36,608	10,718	2,130	75,745	NA
Some college -- not attending	NA	NA	13,388	9,702	33,857	11,675	2,544	71,166	NA
Some college -- attending	NA	NA	4,119	2,094	2,262	166	19	8,660	NA
AA	NA	NA	5,541	5,690	14,907	4,128	1,122	31,389	NA
BA+	NA	NA	10,519	9,098	37,685	15,345	3,808	76,454	NA
Veterans	0	434	718	1,367	6,621	5,035	3,800	17,541	17,976
Did not earn HSD\GED	NA	NA	0	105	134	231	229	699	NA
HSD\GED	NA	NA	189	258	1,194	781	462	2,884	NA
Some college -- not attending	NA	NA	252	334	1,667	1,377	965	4,595	NA
Some college -- attending	NA	NA	148	122	425	0	61	755	NA
AA	NA	NA	102	392	1,227	766	615	3,102	NA
BA+	NA	NA	27	156	1,974	1,880	1,469	5,506	NA

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

Table 24 — Unemployed Labor Force by Age, Veteran Status, and Educational Attainment (Persons 16 and over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	5,719	10,126	7,666	7,399	20,023	5,997	1,207	42,292	58,138
Not Veterans	5,719	10,007	7,514	7,363	18,789	5,574	963	40,203	55,929
Did not earn HSD\GED	NA	NA	1,575	2,277	6,677	2,207	215	12,951	NA
HSD\GED	NA	NA	2,402	2,135	4,690	1,185	233	10,645	NA
Some college -- not attending	NA	NA	1,544	1,238	4,043	1,228	234	8,287	NA
Some college -- attending	NA	NA	638	562	446	31	0	1,677	NA
AA	NA	NA	707	637	1,129	221	53	2,746	NA
BA+	NA	NA	650	514	1,805	703	227	3,898	NA
Veterans	0	119	152	36	1,234	423	244	2,089	2,208
Did not earn HSD\GED	NA	NA	0	0	25	82	20	127	NA
HSD\GED	NA	NA	0	0	337	125	0	462	NA
Some college -- not attending	NA	NA	152	0	302	51	132	637	NA
Some college -- attending	NA	NA	0	19	210	0	0	228	NA
AA	NA	NA	0	0	167	43	69	278	NA
BA+	NA	NA	0	18	193	123	23	356	NA

Table 25 — Labor Force by Veteran Status, Age, and Educational Attainment: Unemployment Rates: Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	TOTAL 25+ ONLY	TOTAL
Total	35.1%	18.2%	13.7%	14.5%	11.4%	10.0%	7.4%	11.8%	13.5%
Not Veterans	35.1%	18.2%	13.6%	14.8%	11.1%	10.1%	7.8%	11.8%	13.5%
Did not earn HSD\GED	NA	NA	19.5%	21.7%	15.2%	16.9%	7.7%	16.6%	NA
HSD\GED	NA	NA	17.7%	16.7%	12.8%	11.1%	10.9%	14.1%	NA
Some college -- not attending	NA	NA	11.5%	12.8%	11.9%	10.5%	9.2%	11.6%	NA
Some college -- attending	NA	NA	15.5%	26.9%	19.7%	18.9%	0.0%	19.4%	NA
AA	NA	NA	12.8%	11.2%	7.6%	5.3%	4.7%	8.7%	NA
BA+	NA	NA	6.2%	5.6%	4.8%	4.6%	6.0%	5.1%	NA
Veterans	NA	27.5%	21.1%	2.7%	18.6%	8.4%	6.4%	11.9%	12.3%
Did not earn HSD\GED	NA	NA	NA	0.0%	18.9%	35.4%	8.7%	18.2%	NA
HSD\GED	NA	NA	0.0%	0.0%	28.2%	16.0%	0.0%	16.0%	NA
Some college -- not attending	NA	NA	60.1%	0.0%	18.1%	3.7%	13.7%	13.9%	NA
Some college -- attending	NA	NA	0.0%	15.3%	49.4%	NA	0.0%	30.2%	NA
AA	NA	NA	0.0%	0.0%	13.6%	5.6%	11.2%	9.0%	NA
BA+	NA	NA	0.0%	11.3%	9.8%	6.5%	1.6%	6.5%	NA

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

Table 26 — Employed and Unemployed Labor Force by College Degree Status and Economic Sector (Persons 25 and Over): Fresno County

	COLLEGE DEGREE				No COLLEGE DEGREE			
	Full-Time	Part-Time	Unem-ployed	UER	Full-Time	Part-Time	Unem-ployed	UER
Total	78,913	30,259	7,278	6.3%	135,632	72,037	35,014	14.4%
11 Agriculture	1,640	582	161	6.7%	16,118	16,522	7,097	17.9%
21 Mining	49	0	0	0.0%	306	68	0	0.0%
22 Utilities	1,265	169	96	6.3%	1,391	204	59	3.6%
23 Construction	2,666	882	265	7.0%	9,153	4,945	3,053	17.8%
31 Manufacturing	4,316	396	396	7.8%	15,328	3,622	2,761	12.7%
42 Wholesale	2,396	528	168	5.4%	6,972	2,426	1,268	11.9%
43 Retail	4,510	2,272	745	9.9%	14,030	7,874	1,977	8.3%
48 Transportation	1,071	533	72	4.3%	5,091	1,845	903	11.5%
49 Warehousing	564	295	134	13.5%	2,373	953	251	7.0%
51 Information	1,159	316	196	11.7%	1,931	493	749	23.6%
52 Finance	3,562	994	171	3.6%	4,491	846	529	9.0%
53 Real Estate	1,579	644	60	2.6%	3,360	1,205	474	9.4%
54 Professional Technical	6,305	2,217	755	8.1%	3,051	1,260	424	9.0%
55 MCE	187	0	0	0.0%	63	52	0	0.0%
56 Admin Support	1,287	983	269	10.6%	5,976	5,389	2,076	15.4%
56 Waste Mgt	209	0	0	0.0%	1,178	203	195	12.4%
61 Education	13,144	7,914	1,046	4.7%	3,221	3,766	491	6.6%
62 Health	19,235	6,812	1,081	4.0%	16,215	7,043	2,788	10.7%
71 Arts, Entrmnt, etc.	997	603	79	4.7%	1,514	1,556	326	9.6%
72 Accommodations	53	0	0	0.0%	1,299	603	204	9.7%
72 Food Services	975	1,294	265	10.5%	5,335	5,363	1,225	10.3%
81 Other Services	2,297	1,621	257	6.2%	7,294	3,893	1,193	9.6%
92 Public Sector	8,691	1,103	242	2.4%	8,764	1,907	1,447	11.9%
98 Military	756	101	39	4.3%	1,177	0	60	4.9%
99 Long-Term Unemployed	0	0	782	100.0%	0	0	5,463	100.0%

Source: Applied Development Economics, based on US Census ACS Public Use Microdata 2012-2014 from iPUMS (Internal: file = H:\zTEMPORARY\2016_projects\CCWC--2016\01_DATA\PUMS\06_EZ-TAG--OUTPUTS\05_Fresno\EZ-TAGS--zSector-05_Fresno--25+.xlsx)

CONCLUSION

At 1.3 percent a year, jobs in Fresno County is expected to grow modestly from now to 2025, although analysts project a number of sectors (Construction, 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

The following tables provide more detailed information on the topics discussed in the report.

Table 27 — Occupational Projections by Education and Training Requirement: New Jobs (Jobs Expected to Grow By At Least 50)

OCCSOC	DESCRIPTION	CHANGE	EDUCATION	MEDIAN	HOURLY RANGE (25th-50th-75th)
11-1021	General and Operations Managers	669	06 BA or higher	\$42.01	30.45 --- 42.01 --- 57.88
11-2022	Sales Managers	94	06 BA or higher	\$36.85	23.65 --- 36.85 --- 63.28
11-3011	Administrative Services Managers	78	06 BA or higher	\$36.86	28.22 --- 36.86 --- 48.32
11-9021	Construction Managers	88	06 BA or higher	\$37.24	30.68 --- 37.24 --- 50.66
11-9032	Education Administrators, Elementary and Secondary School	78	06 BA or higher	\$47.70	41.99 --- 47.7 --- 54.76
11-9051	Food Service Managers	58	02 HSGED	\$19.25	15.19 --- 19.25 --- 23.52
11-9111	Medical and Health Services Managers	149	06 BA or higher	\$55.90	43.26 --- 55.9 --- 67.68
11-9151	Social and Community Service Managers	160	06 BA or higher	\$29.40	22.61 --- 29.4 --- 35.49
13-1051	Cost Estimators	136	06 BA or higher	\$26.14	18.53 --- 26.14 --- 38.38
13-1071	Human Resources Specialists	112	06 BA or higher	\$26.67	20.44 --- 26.67 --- 34.39
13-1111	Management Analysts	85	06 BA or higher	\$33.73	26.11 --- 33.73 --- 44.34
13-1151	Training and Development Specialists	72	06 BA or higher	\$26.16	19.90 --- 26.16 --- 33.05
13-1161	Market Research Analysts and Marketing Specialists	163	06 BA or higher	\$25.07	16.87 --- 25.07 --- 36.91
13-1199	Business Operations Specialists, All Other	149	02 HSGED	\$29.35	23.01 --- 29.35 --- 37.6
13-2011	Accountants and Auditors	233	06 BA or higher	\$30.01	23.12 --- 30.01 --- 36.8
15-1121	Computer Systems Analysts	115	06 BA or higher	\$33.78	28.26 --- 33.78 --- 39.08
15-1132	Software Developers, Applications	84	06 BA or higher	\$49.52	35.58 --- 49.52 --- 62.25
15-1142	Network and Computer Systems Administrators	80	06 BA or higher	\$31.65	24.32 --- 31.65 --- 40.56
15-1151	Computer User Support Specialists	191	03 Some college, no degree	\$20.65	14.45 --- 20.65 --- 27.29
17-2051	Civil Engineers	98	06 BA or higher	\$47.65	42.28 --- 47.65 --- 50.29
19-3031	Clinical, Counseling, and School Psychologists	81	06 BA or higher	\$39.60	29.38 --- 39.60 --- 48
21-1012	Educational, Guidance, School, and Vocational Counselors	110	06 BA or higher	\$23.16	18.07 --- 23.16 --- 31.28
21-1014	Mental Health Counselors	65	06 BA or higher	\$11.70	10.23 --- 11.70 --- 17.11
21-1015	Rehabilitation Counselors	102	06 BA or higher	\$11.71	10.16 --- 11.71 --- 19.38
21-1021	Child, Family, and School Social Workers	131	06 BA or higher	\$20.36	16.70 --- 20.36 --- 24.12
21-1022	Healthcare Social Workers	211	06 BA or higher	\$27.48	24.16 --- 27.48 --- 32.34
21-1023	Mental Health and Substance Abuse Social Workers	60	06 BA or higher	\$22.32	17.48 --- 22.32 --- 31.73
21-1093	Social and Human Service Assistants	379	02 HSGED	\$11.83	10.04 --- 11.83 --- 15.62

OCCSOC	DESCRIPTION	CHANGE	EDUCATION	MEDIAN	HOURLY RANGE (25th-50th-75th)
21-1099	Community and Social Service Specialists, All Other	68	06 BA or higher	\$15.91	12.24 --- 15.91 --- 22.15
21-2011	Clergy	76	06 BA or higher	\$18.03	9.46 --- 18.03 --- 30.4
23-1011	Lawyers	192	06 BA or higher	\$49.09	36.49 --- 49.09 --- 68.59
23-2011	Paralegals and Legal Assistants	134	05 Associate's degree	\$22.00	16.88 --- 22.00 --- 27.37
25-1099	Postsecondary Teachers	511	06 BA or higher	\$30.60	21.46 --- 30.60 --- 43.61
25-2011	Preschool Teachers, Except Special Education	82	05 Associate's degree	\$12.73	10.3 --- 12.73 --- 16.16
25-2012	Kindergarten Teachers, Except Special Education	80	06 BA or higher	\$31.62	26.55 --- 31.62 --- 35.13
25-2021	Elementary School Teachers, Except Special Education	628	06 BA or higher	\$34.51	30.16 --- 34.51 --- 41.12
25-2022	Middle School Teachers, Except Special and Career/Technical Education	287	06 BA or higher	\$30.72	25.64 --- 30.72 --- 34.68
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	342	06 BA or higher	\$35.87	29.75 --- 35.87 --- 46.08
25-2052	Special Education Teachers, Kindergarten and Elementary School	69	06 BA or higher	\$37.60	30.62 --- 37.6 --- 44.66
25-3021	Self-Enrichment Education Teachers	128	02 HS/GED	\$12.65	10.16 --- 12.65 --- 20.00
25-3098	Substitute Teachers	232	06 BA or higher	\$16.52	15.08 --- 16.52 --- 17.96
25-3099	Teachers and Instructors, All Other	162	06 BA or higher	\$16.52	13.58 --- 16.52 --- 41.21
25-9031	Instructional Coordinators	63	06 BA or higher	\$34.00	28.92 --- 34.00 --- 42.74
25-9041	Teacher Assistants	466	03 Some college, no degree	\$14.07	12.48 --- 14.07 --- 16.18
27-1026	Merchandise Displayers and Window Trimmers	50	02 HS/GED	\$13.33	11.05 --- 13.33 --- 15.12
27-2022	Coaches and Scouts	75	06 BA or higher	\$16.33	11.21 --- 16.33 --- 38.12
27-3031	Public Relations Specialists	55	06 BA or higher	\$25.39	17.84 --- 25.39 --- 29.83
27-3091	Interpreters and Translators	77	06 BA or higher	\$18.99	15.97 --- 18.99 --- 26.65
27-4011	Audio and Video Equipment Technicians	52	04 Postsecondary non-deg	\$20.77	18.96 --- 20.77 --- 22.58
29-1051	Pharmacists	139	06 BA or higher	\$69.17	62.76 --- 69.17 --- 78.93
29-1062	Family and General Practitioners	61	06 BA or higher	\$77.93	62.23 --- 77.93 --- 95.45
29-1069	Physicians and Surgeons, All Other	136	06 BA or higher	\$116.28	90 --- 116.28 --- 134.42
29-1071	Physician Assistants	90	06 BA or higher	\$53.71	45.81 --- 53.71 --- 64.37
29-1122	Occupational Therapists	53	06 BA or higher	\$41.41	30.71 --- 41.41 --- 50.41
29-1123	Physical Therapists	93	06 BA or higher	\$44.92	37.32 --- 44.92 --- 53.75
29-1127	Speech-Language Pathologists	79	06 BA or higher	\$37.10	30.38 --- 37.1 --- 49.95
29-1141	Registered Nurses	1246	05 Associate's degree	\$37.68	32.23 --- 37.68 --- 46.34
29-1171	Nurse Practitioners	89	06 BA or higher	\$51.14	42.84 --- 51.14 --- 60.27

OCCSOC	DESCRIPTION	CHANGE	EDUCATION	MEDIAN	HOURLY RANGE (25th-50th-75th)
29-2012	Medical and Clinical Laboratory Technicians	90	05 Associate's degree	\$16.79	14.11 --- 16.79 --- 23.12
29-2021	Dental Hygienists	56	05 Associate's degree	\$40.52	34.73 --- 40.52 --- 44.95
29-2032	Diagnostic Medical Sonographers	53	05 Associate's degree	\$44.40	35.95 --- 44.4 --- 54.82
29-2034	Radiologic Technologists	92	05 Associate's degree	\$35.66	28.64 --- 35.66 --- 47.66
29-2041	Emergency Medical Technicians and Paramedics	95	04 Postsecondary non-deg	\$14.85	11.92 --- 14.85 --- 20.6
29-2052	Pharmacy Technicians	210	02 HS\GED	\$16.87	14.04 --- 16.87 --- 19.44
29-2055	Surgical Technologists	73	04 Postsecondary non-deg	\$27.84	23.79 --- 27.84 --- 33.6
29-2057	Ophthalmic Medical Technicians	63	04 Postsecondary non-deg	\$16.40	13.13 --- 16.4 --- 18.58
29-2061	Licensed Practical and Licensed Vocational Nurses	326	04 Postsecondary non-deg	\$22.96	20.71 --- 22.96 --- 25.93
29-2071	Medical Records and Health Information Technicians	81	04 Postsecondary non-deg	\$15.37	11.47 --- 15.37 --- 20.52
29-2081	Opticians, Dispensing	91	02 HS\GED	\$16.97	14.74 --- 16.97 --- 21.08
29-2099	Health Technologists and Technicians, All Other	90	02 HS\GED	\$23.37	18.07 --- 23.37 --- 28.97
31-1011	Home Health Aides	1050	01 Less than HS	\$10.86	9.69 --- 10.86 --- 11.86
31-1014	Nursing Assistants	639	04 Postsecondary non-deg	\$11.59	10.21 --- 11.59 --- 13.73
31-9091	Dental Assistants	73	04 Postsecondary non-deg	\$12.72	10.5 --- 12.72 --- 14.76
31-9092	Medical Assistants	547	04 Postsecondary non-deg	\$13.81	12.2 --- 13.81 --- 16.38
31-9097	Phlebotomists	73	04 Postsecondary non-deg	\$15.89	13.42 --- 15.89 --- 18.3
33-2011	Firefighters	51	04 Postsecondary non-deg	\$23.67	19.74 --- 23.67 --- 27.72
33-3012	Correctional Officers and Jailers	159	02 HS\GED	\$33.97	26.49 --- 33.97 --- 37.83
33-3051	Police and Sheriff's Patrol Officers	118	02 HS\GED	\$31.53	24.1 --- 31.53 --- 37.17
33-9032	Security Guards	301	02 HS\GED	\$9.79	9.29 --- 9.79 --- 10.91
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	426	02 HS\GED	\$12.93	10.87 --- 12.93 --- 16.77
35-2011	Cooks, Fast Food	147	01 Less than HS	\$9.62	9.23 --- 9.62 --- 10.05
35-2012	Cooks, Institution and Cafeteria	170	01 Less than HS	\$13.02	11.33 --- 13.02 --- 14.56
35-2014	Cooks, Restaurant	466	01 Less than HS	\$11.13	9.58 --- 11.13 --- 13.51
35-2021	Food Preparation Workers	272	01 Less than HS	\$9.88	9.33 --- 9.88 --- 11.7
35-3011	Bartenders	163	01 Less than HS	\$10.80	9.46 --- 10.8 --- 14.42
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	1859	01 Less than HS	\$9.76	9.28 --- 9.76 --- 11.17
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	86	01 Less than HS	\$9.90	9.34 --- 9.9 --- 12.85
35-3031	Waiters and Waitresses	735	01 Less than HS	\$9.83	9.31 --- 9.83 --- 12.45

OCCSOC	DESCRIPTION	CHANGE	EDUCATION	MEDIAN	HOURLY RANGE (25th-50th-75th)
35-3041	Food Servers, Nonrestaurant	124	01 Less than HS	\$10.51	9.42 --- 10.51 --- 13.85
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	199	01 Less than HS	\$9.71	9.26 --- 9.71 --- 10.64
35-9021	Dishwashers	193	01 Less than HS	\$9.60	9.23 --- 9.6 --- 9.97
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	116	01 Less than HS	\$9.64	9.24 --- 9.64 --- 10.06
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	54	02 HS\GED	\$17.00	15.42 --- 17 --- 18.58
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	738	01 Less than HS	\$10.96	9.49 --- 10.96 --- 14.92
37-2012	Maids and Housekeeping Cleaners	248	01 Less than HS	\$10.01	9.38 --- 10.01 --- 11.89
37-2021	Pest Control Workers	53	02 HS\GED	\$11.63	10.54 --- 11.63 --- 14.52
37-3011	Landscaping and Groundskeeping Workers	111	01 Less than HS	\$13.90	10.77 --- 13.9 --- 17.78
39-1021	First-Line Supervisors of Personal Service Workers	93	02 HS\GED	\$19.88	15.09 --- 19.88 --- 24.67
39-3011	Gaming Dealers	61	02 HS\GED	\$9.56	9.46 --- 9.56 --- 12.75
39-5012	Hairdressers, Hairstylists, and Cosmetologists	59	04 Postsecondary non-deg	\$11.00	9.63 --- 11 --- 12.73
39-9011	Childcare Workers	112	02 HS\GED	\$10.42	9.44 --- 10.42 --- 12.05
39-9021	Personal Care Aides	3177	01 Less than HS	\$9.70	9.26 --- 9.7 --- 10.45
39-9032	Recreation Workers	136	06 BA or higher	\$11.79	9.99 --- 11.79 --- 14.19
39-9041	Residential Advisors	50	02 HS\GED	\$12.87	11.43 --- 12.87 --- 15.71
41-1011	First-Line Supervisors of Retail Sales Workers	557	02 HS\GED	\$17.21	13.67 --- 17.21 --- 22.46
41-1012	First-Line Supervisors of Non-Retail Sales Workers	94	02 HS\GED	\$29.07	19.93 --- 29.07 --- 36.28
41-2011	Cashiers	729	01 Less than HS	\$10.16	9.39 --- 10.16 --- 13.5
41-2021	Counter and Rental Clerks	216	01 Less than HS	\$11.41	9.56 --- 11.41 --- 15.16
41-2022	Parts Salespersons	97	01 Less than HS	\$12.18	10.33 --- 12.18 --- 18.03
41-2031	Retail Salespersons	2318	01 Less than HS	\$10.65	9.46 --- 10.65 --- 13.09
41-3021	Insurance Sales Agents	254	02 HS\GED	\$22.60	15.38 --- 22.6 --- 35.99
41-3099	Sales Representatives, Services, All Other	372	02 HS\GED	\$20.83	15.83 --- 20.83 --- 28.09
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	66	06 BA or higher	\$33.24	25.21 --- 33.24 --- 44.44
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	480	02 HS\GED	\$22.70	14.32 --- 22.7 --- 32.93
41-9011	Demonstrators and Product Promoters	78	02 HS\GED	\$12.06	10.8 --- 12.06 --- 14.36
41-9041	Telemarketers	231	01 Less than HS	\$10.56	9.43 --- 10.56 --- 13.7

OCCSOC	DESCRIPTION	CHANGE	EDUCATION	MEDIAN	HOURLY RANGE (25th-50th-75th)
43-1011	First-Line Supervisors of Office and Administrative Support Workers	489	02 HS\GED	\$23.72	19.07 --- 23.72 --- 29.68
43-3021	Billing and Posting Clerks	224	02 HS\GED	\$16.38	13.81 --- 16.38 --- 19
43-3031	Bookkeeping, Accounting, and Auditing Clerks	519	02 HS\GED	\$17.46	14.3 --- 17.46 --- 21.42
43-3051	Payroll and Timekeeping Clerks	69	02 HS\GED	\$17.84	14.45 --- 17.84 --- 22.16
43-4051	Customer Service Representatives	1350	02 HS\GED	\$16.09	12.94 --- 16.09 --- 21.88
43-4061	Eligibility Interviewers, Government Programs	123	02 HS\GED	\$21.97	18.83 --- 21.97 --- 24.86
43-4171	Receptionists and Information Clerks	364	02 HS\GED	\$12.41	10.26 --- 12.41 --- 15.04
43-5032	Dispatchers, Except Police, Fire, and Ambulance	129	02 HS\GED	\$17.81	14.13 --- 17.81 --- 24.32
43-5061	Production, Planning, and Expediting Clerks	59	02 HS\GED	\$20.62	16.12 --- 20.62 --- 26.65
43-5071	Shipping, Receiving, and Traffic Clerks	146	02 HS\GED	\$13.50	11.08 --- 13.5 --- 17.26
43-5081	Stock Clerks and Order Fillers	545	01 Less than HS	\$11.52	9.59 --- 11.52 --- 15.76
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	50	02 HS\GED	\$11.90	10.19 --- 11.9 --- 15.65
43-6013	Medical Secretaries	480	02 HS\GED	\$15.39	12.57 --- 15.39 --- 18.12
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	875	02 HS\GED	\$16.22	12.63 --- 16.22 --- 19.64
43-9041	Insurance Claims and Policy Processing Clerks	56	02 HS\GED	\$17.47	13.03 --- 17.47 --- 21.96
43-9061	Office Clerks, General	768	02 HS\GED	\$13.47	10.91 --- 13.47 --- 16.91
45-2041	Graders and Sorters, Agricultural Products	54	01 Less than HS	\$9.60	9.23 --- 9.6 --- 9.97
45-2091	Agricultural Equipment Operators	108	01 Less than HS	\$10.07	9.1 --- 10.07 --- 10.97
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	464	01 Less than HS	\$9.61	9.23 --- 9.61 --- 10
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	194	02 HS\GED	\$30.66	25.29 --- 30.66 --- 36.56
47-2031	Carpenters	247	02 HS\GED	\$18.25	13.81 --- 18.25 --- 23.18
47-2051	Cement Masons and Concrete Finishers	160	01 Less than HS	\$16.44	13.78 --- 16.44 --- 19.47
47-2061	Construction Laborers	493	01 Less than HS	\$15.35	10.88 --- 15.35 --- 18.31
47-2073	Operating Engineers and Other Construction Equipment Operators	138	02 HS\GED	\$28.25	21.47 --- 28.25 --- 38.45
47-2081	Drywall and Ceiling Tile Installers	80	01 Less than HS	\$17.90	13.81 --- 17.9 --- 23.66
47-2111	Electricians	293	02 HS\GED	\$23.45	16.61 --- 23.45 --- 32.69
47-2152	Plumbers, Pipefitters, and Steamfitters	198	02 HS\GED	\$25.64	19.22 --- 25.64 --- 29.34
47-2181	Roofers	112	01 Less than HS	\$23.13	16.79 --- 23.13 --- 27.53
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	139	02 HS\GED	\$29.88	24.2 --- 29.88 --- 35.64

OCCSOC	DESCRIPTION	CHANGE	EDUCATION	MEDIAN	HOURLY RANGE (25th-50th-75th)
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	248	04 Postsecondary non-deg	\$30.84	21.88 --- 30.84 --- 34.74
49-3021	Automotive Body and Related Repairers	60	02 HS\GED	\$16.97	10.44 --- 16.97 --- 24.53
49-3023	Automotive Service Technicians and Mechanics	282	02 HS\GED	\$17.11	12.24 --- 17.11 --- 22.82
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	111	02 HS\GED	\$22.99	17.38 --- 22.99 --- 28.03
49-3093	Tire Repairers and Changers	69	02 HS\GED	\$11.38	9.51 --- 11.38 --- 13.95
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	174	04 Postsecondary non-deg	\$19.74	16.11 --- 19.74 --- 26.34
49-9041	Industrial Machinery Mechanics	149	02 HS\GED	\$21.71	18.08 --- 21.71 --- 25.92
49-9051	Electrical Power-Line Installers and Repairers	142	02 HS\GED	\$40.66	30.15 --- 40.66 --- 46.34
49-9052	Telecommunications Line Installers and Repairers	110	02 HS\GED	\$32.52	29.71 --- 32.52 --- 35.29
49-9071	Maintenance and Repair Workers, General	353	02 HS\GED	\$17.13	12.85 --- 17.13 --- 22.17
49-9098	Helpers--Installation, Maintenance, and Repair Workers	55	02 HS\GED	\$11.22	9.98 --- 11.22 --- 13.24
51-1011	First-Line Supervisors of Production and Operating Workers	77	04 Postsecondary non-deg	\$24.74	18.73 --- 24.74 --- 30
51-2092	Team Assemblers	204	02 HS\GED	\$11.96	9.69 --- 11.96 --- 15.11
51-2099	Assemblers and Fabricators, All Other	90	02 HS\GED	\$11.74	9.86 --- 11.74 --- 15.28
51-3021	Butchers and Meat Cutters	80	01 Less than HS	\$11.68	9.68 --- 11.68 --- 19.8
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	189	01 Less than HS	\$11.37	10.21 --- 11.37 --- 13.66
51-3023	Slaughterers and Meat Packers	83	01 Less than HS	\$11.68	10.37 --- 11.68 --- 14.11
51-4041	Machinists	75	02 HS\GED	\$17.75	11.4 --- 17.75 --- 21.88
51-4121	Welders, Cutters, Solderers, and Brazers	56	02 HS\GED	\$15.58	13.12 --- 15.58 --- 18.4
51-6011	Laundry and Dry-Cleaning Workers	60	01 Less than HS	\$12.12	9.88 --- 12.12 --- 13.89
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	141	02 HS\GED	\$11.69	9.47 --- 11.69 --- 17.4
51-9111	Packaging and Filling Machine Operators and Tenders	149	02 HS\GED	\$10.85	9.70 --- 10.85 --- 11.96
51-9198	Helpers--Production Workers	122	01 Less than HS	\$10.24	9.38 --- 10.24 --- 14.06
51-9199	Production Workers, All Other	82	02 HS\GED	\$9.91	9.34 --- 9.91 --- 11.53
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	86	02 HS\GED	\$20.47	16.10 --- 20.47 --- 24.76
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	96	02 HS\GED	\$23.82	18.36 --- 23.82 --- 30.33
53-3022	Bus Drivers, School or Special Client	128	02 HS\GED	\$15.81	13.50 --- 15.81 --- 19.3

OCCSOC	DESCRIPTION	CHANGE	EDUCATION	MEDIAN	HOURLY RANGE (25th-50th-75th)
53-3031	Driver/Sales Workers	260	02 HS\GED	\$15.43	9.95 --- 15.43 --- 22.62
53-3032	Heavy and Tractor-Trailer Truck Drivers	1057	04 Postsecondary non-deg	\$18.98	16.25 --- 18.98 --- 23.17
53-3033	Light Truck or Delivery Services Drivers	357	02 HS\GED	\$13.00	9.67 --- 13.00 --- 17.5
53-3041	Taxi Drivers and Chauffeurs	152	01 Less than HS	\$10.98	10.07 --- 10.98 --- 11.93
53-6031	Automotive and Watercraft Service Attendants	97	01 Less than HS	\$10.36	9.45 --- 10.36 --- 11.87
53-7061	Cleaners of Vehicles and Equipment	330	01 Less than HS	\$10.02	9.37 --- 10.02 --- 11.83
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1092	01 Less than HS	\$10.03	9.37 --- 10.03 --- 13.21
53-7064	Packers and Packagers, Hand	483	01 Less than HS	\$9.78	9.30 --- 9.78 --- 10.92
53-7081	Refuse and Recyclable Material Collectors	51	01 Less than HS	\$11.93	9.66 --- 11.93 --- 19.78

Source: Applied Development Economics, based on EMSI Occupational Data Q4 2015 QCEW and non-QCEW

Table 28 — Occupational Projections by Education and Training Requirement: Annual and Cumulative Projected Openings (At Least 50) Fresno County

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
		14,467	144,670	\$18.99	15.08 --- 18.99 --- 24.67
11-1011	Chief Executives	17	170	\$70.73	58.52 --- 70.73 --- 99.92
11-1021	General and Operations Managers	166	1,660	\$42.01	30.45 --- 42.01 --- 57.88
11-2021	Marketing Managers	7	70	\$40.57	28.16 --- 40.57 --- 59.59
11-2022	Sales Managers	34	340	\$36.85	23.65 --- 36.85 --- 63.28
11-2031	Public Relations and Fundraising	6	60	\$36.31	31.52 --- 36.31 --- 51.93
11-3011	Administrative Services Managers	20	200	\$36.86	28.22 --- 36.86 --- 48.32
11-3021	Computer and Information	9	90	\$47.36	40.98 --- 47.36 --- 63.36
11-3031	Financial Managers	25	250	\$44.31	34.38 --- 44.31 --- 56.63
11-3051	Industrial Production Managers	8	80	\$35.70	27.18 --- 35.70 --- 46.37

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
11-3071	Transportation, Storage, and	11	110	\$36.31	30.42 --- 36.31 --- 45.56
11-3121	Human Resources Managers	10	100	\$37.11	32.69 --- 37.11 --- 47.65
11-9013	Farmers, Ranchers, and Other	25	250	\$31.59	22.59 --- 31.59 --- 36.47
11-9021	Construction Managers	15	150	\$37.24	30.68 --- 37.24 --- 50.66
11-9031	Education Administrators,	9	90	\$21.18	17.23 --- 21.18 --- 25.57
11-9032	Education Administrators,	27	270	\$47.70	41.99 --- 47.70 --- 54.76
11-9033	Education Administrators,	14	140	\$45.98	33.81 --- 45.98 --- 60.96
11-9039	Education Administrators, All	6	60	\$44.17	37.41 --- 44.17 --- 51.33
11-9041	Architectural and Engineering	7	70	\$62.97	50.38 --- 62.97 --- 79.06
11-9051	Food Service Managers	16	160	\$19.25	15.19 --- 19.25 --- 23.52
11-9111	Medical and Health Services	35	350	\$55.90	43.26 --- 55.90 --- 67.68
11-9141	Property, Real Estate, and	12	120	\$27.75	20.58 --- 27.75 --- 41.22
11-9151	Social and Community Service	29	290	\$29.40	22.61 --- 29.40 --- 35.49
11-9199	Managers, All Other	17	170	\$49.61	36.85 --- 49.61 --- 60.65
13-1022	Wholesale and Retail Buyers,	10	100	\$22.72	20.13 --- 22.72 --- 27.12
13-1023	Purchasing Agents, Except	12	120	\$26.85	21.49 --- 26.85 --- 34.13
13-1031	Claims Adjusters, Examiners, and	18	180	\$31.34	24.83 --- 31.34 --- 34.73
13-1041	Compliance Officers	14	140	\$32.31	27.27 --- 32.31 --- 38.4
13-1051	Cost Estimators	39	390	\$26.14	18.53 --- 26.14 --- 38.38
13-1071	Human Resources Specialists	26	260	\$26.67	20.44 --- 26.67 --- 34.39
13-1075	Labor Relations Specialists	7	70	\$28.31	9.55 --- 28.31 --- 42.49
13-1081	Logisticians	5	50	\$33.88	26.88 --- 33.88 --- 41.8
13-1111	Management Analysts	22	220	\$33.73	26.11 --- 33.73 --- 44.34
13-1121	Meeting, Convention, and Event	7	70	\$18.70	15.24 --- 18.70 --- 25.68
13-1131	Fundraisers	7	70	\$21.03	15.73 --- 21.03 --- 29.71
13-1141	Compensation, Benefits, and Job	7	70	\$32.20	26.91 --- 32.2 --- 35.7
13-1151	Training and Development	14	140	\$26.16	19.9 --- 26.16 --- 33.05
13-1161	Market Research Analysts and	26	260	\$25.07	16.87 --- 25.07 --- 36.91

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
13-1199	Business Operations Specialists, All	43	430	\$29.35	23.01 --- 29.35 --- 37.6
13-2011	Accountants and Auditors	91	910	\$30.01	23.12 --- 30.01 --- 36.8
13-2031	Budget Analysts	6	60	\$28.29	20.41 --- 28.29 --- 36.76
13-2051	Financial Analysts	8	80	\$38.50	32.47 --- 38.50 --- 51.39
13-2072	Loan Officers	8	80	\$36.75	29.69 --- 36.75 --- 48.97
13-2081	Tax Examiners and Collectors, and	60	600	\$21.97	18.65 --- 21.97 --- 24.48
15-1121	Computer Systems Analysts	22	220	\$33.78	28.26 --- 33.78 --- 39.08
15-1131	Computer Programmers	9	90	\$38.32	25.32 --- 38.32 --- 44.99
15-1132	Software Developers, Applications	14	140	\$49.52	35.58 --- 49.52 --- 62.25
15-1133	Software Developers, Systems	8	80	\$47.25	37.62 --- 47.25 --- 59.86
15-1141	Database Administrators	5	50	\$35.01	27.13 --- 35.01 --- 43.69
15-1142	Network and Computer Systems	16	160	\$31.65	24.32 --- 31.65 --- 40.56
15-1143	Computer Network Architects	6	60	\$41.27	30.52 --- 41.27 --- 57.73
15-1151	Computer User Support Specialists	35	350	\$20.65	14.45 --- 20.65 --- 27.29
15-1152	Computer Network Support	8	80	\$25.76	20.28 --- 25.76 --- 34.41
15-1199	Computer Occupations, All Other	6	60	\$37.45	30.73 --- 37.45 --- 43.71
17-1011	Architects, Except Landscape and	7	70	\$34.14	27.96 --- 34.14 --- 44.85
17-2051	Civil Engineers	35	353	\$47.65	42.28 --- 47.65 --- 50.29
17-2071	Electrical Engineers	12	120	\$57.83	46.94 --- 57.83 --- 66.8
17-2072	Electronics Engineers, Except	6	60	\$43.23	34.7 --- 43.23 --- 54.79
17-2112	Industrial Engineers	6	60	\$39.22	30.68 --- 39.22 --- 51.9
17-2141	Mechanical Engineers	8	80	\$37.97	30.9 --- 37.97 --- 51.85
19-1042	Medical Scientists, Except	7	70	\$43.95	37.17 --- 43.95 --- 50.47
19-2031	Chemists	7	70	\$19.88	16.2 --- 19.88 --- 26.34
19-2041	Environmental Scientists and	12	120	\$33.29	28.23 --- 33.29 --- 37.28
19-3031	Clinical, Counseling, and School	26	260	\$39.60	29.38 --- 39.60 --- 48.00
19-3051	Urban and Regional Planners	10	100	\$33.70	31.17 --- 33.70 --- 40.17
19-4011	Agricultural and Food Science	6	60	\$16.07	12.98 --- 16.07 --- 24.3

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
19-4021	Biological Technicians	6	60	\$16.94	11.72 --- 16.94 --- 25.21
19-4031	Chemical Technicians	8	80	\$14.55	11.46 --- 14.55 --- 24.62
19-4091	Environmental Science and	6	60	\$19.89	14.77 --- 19.89 --- 26.32
19-4093	Forest and Conservation	6	60	\$13.34	10.03 --- 13.34 --- 17.48
21-1011	Substance Abuse and Behavioral	9	90	\$17.64	13.94 --- 17.64 --- 24.31
21-1012	Educational, Guidance, School, and	40	400	\$23.16	18.07 --- 23.16 --- 31.28
21-1014	Mental Health Counselors	13	130	\$11.70	10.23 --- 11.7 --- 17.11
21-1015	Rehabilitation Counselors	18	180	\$11.71	10.16 --- 11.71 --- 19.38
21-1019	Counselors, All Other	9	90	\$22.41	18.16 --- 22.41 --- 31.80
21-1021	Child, Family, and School Social	29	290	\$20.36	16.7 --- 20.36 --- 24.12
21-1022	Healthcare Social Workers	40	400	\$27.48	24.16 --- 27.48 --- 32.34
21-1023	Mental Health and Substance	13	130	\$22.32	17.48 --- 22.32 --- 31.73
21-1029	Social Workers, All Other	18	180	\$28.62	24.44 --- 28.62 --- 33.83
21-1091	Health Educators	6	60	\$21.98	18.53 --- 21.98 --- 27.48
21-1092	Probation Officers and	10	100	\$35.62	27.68 --- 35.62 --- 45.82
21-1093	Social and Human Service	85	850	\$11.83	10.04 --- 11.83 --- 15.62
21-1094	Community Health Workers	10	100	\$14.16	12.12 --- 14.16 --- 17.91
21-1099	Community and Social Service	16	160	\$15.91	12.24 --- 15.91 --- 22.15
21-2011	Clergy	23	230	\$18.03	9.46 --- 18.03 --- 30.40
21-2021	Directors, Religious Activities and	18	180	\$15.76	13.44 --- 15.76 --- 18.10
21-2099	Religious Workers, All Other	6	60	\$17.77	11.94 --- 17.77 --- 26.8
23-1011	Lawyers	40	400	\$49.09	36.49 --- 49.09 --- 68.59
23-2011	Paralegals and Legal Assistants	25	250	\$22.00	16.88 --- 22.00 --- 27.37
25-1099	Postsecondary Teachers	120	1,200	\$30.60	21.46 --- 30.60 --- 43.61
25-2011	Preschool Teachers, Except Special	40	400	\$12.73	10.3 --- 12.73 --- 16.16
25-2012	Kindergarten Teachers, Except	23	230	\$31.62	26.55 --- 31.62 --- 35.13
25-2021	Elementary School Teachers,	151	1,510	\$34.51	30.16 --- 34.51 --- 41.12
25-2022	Middle School Teachers, Except	68	680	\$30.72	25.64 --- 30.72 --- 34.68

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
25-2031	Secondary School Teachers, Except	137	1,370	\$35.87	29.75 --- 35.87 --- 46.08
25-2052	Special Education Teachers,	17	170	\$37.60	30.62 --- 37.60 --- 44.66
25-2054	Special Education Teachers,	10	100	\$39.15	32.15 --- 39.15 --- 44.54
25-3011	Adult Basic and Secondary	7	70	\$35.13	30.35 --- 35.13 --- 42.18
25-3021	Self-Enrichment Education	22	220	\$12.65	10.16 --- 12.65 --- 20.00
25-3098	Substitute Teachers	70	700	\$16.52	15.08 --- 16.52 --- 17.96
25-3099	Teachers and Instructors, All Other	42	420	\$16.52	13.58 --- 16.52 --- 41.21
25-4021	Librarians	7	70	\$35.19	28.11 --- 35.19 --- 42.72
25-4031	Library Technicians	28	280	\$16.64	13.33 --- 16.64 --- 18.72
25-9031	Instructional Coordinators	11	110	\$34.00	28.92 --- 34.00 --- 42.74
25-9041	Teacher Assistants	145	1,450	\$14.07	12.48 --- 14.07 --- 16.18
25-9099	Education, Training, and Library	8	80	\$14.32	12.1 --- 14.32 --- 17.38
27-1024	Graphic Designers	10	100	\$17.65	13.48 --- 17.65 --- 22.56
27-1026	Merchandise Displayers and	12	120	\$13.33	11.05 --- 13.33 --- 15.12
27-2012	Producers and Directors	10	100	\$31.45	21.1 --- 31.45 --- 36.27
27-2022	Coaches and Scouts	21	210	\$16.33	11.21 --- 16.33 --- 38.12
27-2041	Music Directors and Composers	7	70	\$21.04	16.28 --- 21.04 --- 25.50
27-2042	Musicians and Singers	9	90	\$25.10	16.52 --- 25.10 --- 40.26
27-3031	Public Relations Specialists	10	100	\$25.39	17.84 --- 25.39 --- 29.83
27-3091	Interpreters and Translators	13	130	\$18.99	15.97 --- 18.99 --- 26.65
27-4011	Audio and Video Equipment	11	110	\$20.77	18.96 --- 20.77 --- 22.58
29-1021	Dentists, General	13	130	\$83.72	45.25 --- 83.72 --- 96.09
29-1031	Dietitians and Nutritionists	8	80	\$27.58	21.02 --- 27.58 --- 37.55
29-1041	Optometrists	8	80	\$50.54	41.2 --- 50.54 --- 61.86
29-1051	Pharmacists	33	330	\$69.17	62.76 --- 69.17 --- 78.93
29-1061	Anesthesiologists	5	50	\$101.59	92.28 --- 101.59 --- 142.68
29-1062	Family and General Practitioners	17	170	\$77.93	62.23 --- 77.93 --- 95.45
29-1063	Internists, General	8	80	\$114.22	84.49 --- 114.22 --- 132.57

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
29-1067	Surgeons	6	60	\$96.61	90.08 --- 96.61 --- 135.68
29-1069	Physicians and Surgeons, All Other	27	270	\$116.28	90.00 --- 116.28 --- 134.42
29-1071	Physician Assistants	15	150	\$53.71	45.81 --- 53.71 --- 64.37
29-1122	Occupational Therapists	9	90	\$41.41	30.71 --- 41.41 --- 50.41
29-1123	Physical Therapists	19	190	\$44.92	37.32 --- 44.92 --- 53.75
29-1126	Respiratory Therapists	9	90	\$41.06	29.1 --- 41.06 --- 50.79
29-1127	Speech-Language Pathologists	17	170	\$37.10	30.38 --- 37.10 --- 49.95
29-1131	Veterinarians	6	60	\$41.89	38.38 --- 41.89 --- 45.54
29-1141	Registered Nurses	260	2,600	\$37.68	32.23 --- 37.68 --- 46.34
29-1171	Nurse Practitioners	15	150	\$51.14	42.84 --- 51.14 --- 60.27
29-2011	Medical and Clinical Laboratory	12	120	\$35.15	23.68 --- 35.15 --- 41.31
29-2012	Medical and Clinical Laboratory	18	180	\$16.79	14.11 --- 16.79 --- 23.12
29-2021	Dental Hygienists	16	160	\$40.52	34.73 --- 40.52 --- 44.95
29-2031	Cardiovascular Technologists and	5	50	\$25.61	19.81 --- 25.61 --- 33.36
29-2032	Diagnostic Medical Sonographers	7	70	\$44.40	35.95 --- 44.4 --- 54.82
29-2034	Radiologic Technologists	15	150	\$35.66	28.64 --- 35.66 --- 47.66
29-2041	Emergency Medical Technicians	26	260	\$14.85	11.92 --- 14.85 --- 20.6
29-2052	Pharmacy Technicians	30	300	\$16.87	14.04 --- 16.87 --- 19.44
29-2053	Psychiatric Technicians	6	60	\$27.44	25.52 --- 27.44 --- 29.36
29-2055	Surgical Technologists	10	100	\$27.84	23.79 --- 27.84 --- 33.60
29-2056	Veterinary Technologists and	5	50	\$10.69	9.39 --- 10.69 --- 16.51
29-2057	Ophthalmic Medical Technicians	10	100	\$16.40	13.13 --- 16.40 --- 18.58
29-2061	Licensed Practical and Licensed	72	720	\$22.96	20.71 --- 22.96 --- 25.93
29-2071	Medical Records and Health	22	220	\$15.37	11.47 --- 15.37 --- 20.52
29-2081	Opticians, Dispensing	15	150	\$16.97	14.74 --- 16.97 --- 21.08
29-2099	Health Technologists and	13	130	\$23.37	18.07 --- 23.37 --- 28.97
29-9011	Occupational Health and Safety	5	50	\$36.88	27.26 --- 36.88 --- 41.9
29-9099	Healthcare Practitioners and	8	80	\$17.92	15.63 --- 17.92 --- 25.53

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
31-1011	Home Health Aides	143	1,430	\$10.86	9.69 --- 10.86 --- 11.86
31-1014	Nursing Assistants	130	1,300	\$11.59	10.21 --- 11.59 --- 13.73
31-1015	Orderlies	6	60	\$17.81	13.1 --- 17.81 --- 24.79
31-2022	Physical Therapist Aides	6	60	\$12.19	10.61 --- 12.19 --- 14.6
31-9091	Dental Assistants	30	300	\$12.72	10.5 --- 12.72 --- 14.76
31-9092	Medical Assistants	113	1,130	\$13.81	12.2 --- 13.81 --- 16.38
31-9093	Medical Equipment Preparers	5	50	\$20.25	16.91 --- 20.25 --- 23.84
31-9096	Veterinary Assistants and	6	60	\$13.20	12.2 --- 13.2 --- 14.19
31-9097	Phlebotomists	17	170	\$15.89	13.42 --- 15.89 --- 18.3
31-9099	Healthcare Support Workers, All	10	100	\$18.41	15.43 --- 18.41 --- 23.56
33-1011	First-Line Supervisors of	8	80	\$42.18	37.46 --- 42.18 --- 44.18
33-2011	Firefighters	16	160	\$23.67	19.74 --- 23.67 --- 27.72
33-3012	Correctional Officers and Jailers	61	610	\$33.97	26.49 --- 33.97 --- 37.83
33-3021	Detectives and Criminal	7	70	\$37.25	31.85 --- 37.25 --- 45.94
33-3051	Police and Sheriff's Patrol Officers	53	530	\$31.53	24.1 --- 31.53 --- 37.17
33-9032	Security Guards	96	960	\$9.79	9.29 --- 9.79 --- 10.91
33-9091	Crossing Guards	5	50	\$9.94	9.35 --- 9.94 --- 11.17
33-9092	Lifeguards, Ski Patrol, and Other	21	210	\$9.71	9.26 --- 9.71 --- 10.50
33-9099	Protective Service Workers, All	32	320	\$11.70	9.99 --- 11.7 --- 15.43
35-1011	Chefs and Head Cooks	7	70	\$20.22	17.25 --- 20.22 --- 22.91
35-1012	First-Line Supervisors of Food	104	1,040	\$12.93	10.87 --- 12.93 --- 16.77
35-2011	Cooks, Fast Food	64	640	\$9.62	9.23 --- 9.62 --- 10.05
35-2012	Cooks, Institution and Cafeteria	37	370	\$13.02	11.33 --- 13.02 --- 14.56
35-2014	Cooks, Restaurant	86	860	\$11.13	9.58 --- 11.13 --- 13.51
35-2015	Cooks, Short Order	12	120	\$10.17	9.4 --- 10.17 --- 11.48
35-2019	Cooks, All Other	5	50	\$12.37	10.85 --- 12.37 --- 14.17
35-2021	Food Preparation Workers	101	1,010	\$9.88	9.33 --- 9.88 --- 11.7
35-3011	Bartenders	59	590	\$10.80	9.46 --- 10.8 --- 14.42

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
35-3021	Combined Food Preparation and	546	5,460	\$9.76	9.28 --- 9.76 --- 11.17
35-3022	Counter Attendants, Cafeteria,	64	640	\$9.90	9.34 --- 9.9 --- 12.85
35-3031	Waiters and Waitresses	306	3,060	\$9.83	9.31 --- 9.83 --- 12.45
35-3041	Food Servers, Nonrestaurant	34	340	\$10.51	9.42 --- 10.51 --- 13.85
35-9011	Dining Room and Cafeteria	98	980	\$9.71	9.26 --- 9.71 --- 10.64
35-9021	Dishwashers	93	930	\$9.60	9.23 --- 9.6 --- 9.97
35-9031	Hosts and Hostesses, Restaurant,	64	640	\$9.64	9.24 --- 9.64 --- 10.06
35-9099	Food Preparation and Serving	16	160	\$10.54	9.46 --- 10.54 --- 13.58
37-1011	First-Line Supervisors of	18	180	\$17.00	15.42 --- 17 --- 18.58
37-2011	Janitors and Cleaners, Except	177	1,770	\$10.96	9.49 --- 10.96 --- 14.92
37-2012	Maids and Housekeeping Cleaners	62	620	\$10.01	9.38 --- 10.01 --- 11.89
37-2021	Pest Control Workers	15	150	\$11.63	10.54 --- 11.63 --- 14.52
37-3011	Landscaping and Groundskeeping	65	650	\$13.90	10.77 --- 13.9 --- 17.78
37-3012	Pesticide Handlers, Sprayers, and	11	110	\$12.86	10.93 --- 12.86 --- 15.81
37-3013	Tree Trimmers and Pruners	6	60	\$16.18	11.67 --- 16.18 --- 20.46
39-1021	First-Line Supervisors of Personal	14	140	\$19.88	15.09 --- 19.88 --- 24.67
39-2021	Nonfarm Animal Caretakers	9	90	\$11.36	9.71 --- 11.36 --- 13.86
39-3011	Gaming Dealers	15	150	\$9.56	9.46 --- 9.56 --- 12.75
39-3019	Gaming Service Workers, All Other	10	100	\$11.24	9.64 --- 11.24 --- 14.53
39-3031	Ushers, Lobby Attendants, and	16	160	\$9.61	9.23 --- 9.61 --- 9.99
39-3091	Amusement and Recreation	37	370	\$9.75	9.28 --- 9.75 --- 10.85
39-5012	Hairdressers, Hairstylists, and	13	130	\$11.00	9.63 --- 11 --- 12.73
39-7011	Tour Guides and Escorts	5	50	\$10.93	9.18 --- 10.93 --- 14.29
39-9011	Childcare Workers	90	900	\$10.42	9.44 --- 10.42 --- 12.05
39-9021	Personal Care Aides	354	3,540	\$9.70	9.26 --- 9.7 --- 10.45
39-9031	Fitness Trainers and Aerobics	7	70	\$26.24	23.82 --- 26.24 --- 28.58
39-9032	Recreation Workers	21	210	\$11.79	9.99 --- 11.79 --- 14.19
39-9041	Residential Advisors	13	130	\$12.87	11.43 --- 12.87 --- 15.71

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
41-1011	First-Line Supervisors of Retail	120	1,200	\$17.21	13.67 --- 17.21 --- 22.46
41-1012	First-Line Supervisors of Non-Retail	17	170	\$29.07	19.93 --- 29.07 --- 36.28
41-2011	Cashiers	458	4,580	\$10.16	9.39 --- 10.16 --- 13.5
41-2021	Counter and Rental Clerks	72	720	\$11.41	9.56 --- 11.41 --- 15.16
41-2022	Parts Salespersons	32	320	\$12.18	10.33 --- 12.18 --- 18.03
41-2031	Retail Salespersons	637	6,370	\$10.65	9.46 --- 10.65 --- 13.09
41-3011	Advertising Sales Agents	13	130	\$23.05	15.35 --- 23.05 --- 33.13
41-3021	Insurance Sales Agents	65	650	\$22.60	15.38 --- 22.6 --- 35.99
41-3031	Securities, Commodities, and	14	140	\$24.95	17.13 --- 24.95 --- 43.86
41-3099	Sales Representatives, Services, All	89	890	\$20.83	15.83 --- 20.83 --- 28.09
41-4011	Sales Representatives, Wholesale	17	170	\$33.24	25.21 --- 33.24 --- 44.44
41-4012	Sales Representatives, Wholesale	113	1,130	\$22.70	14.32 --- 22.7 --- 32.93
41-9011	Demonstrators and Product	22	220	\$12.06	10.8 --- 12.06 --- 14.36
41-9022	Real Estate Sales Agents	6	60	\$25.88	16.24 --- 25.88 --- 32.71
41-9041	Telemarketers	30	300	\$10.56	9.43 --- 10.56 --- 13.7
41-9099	Sales and Related Workers, All	11	110	\$16.34	11.95 --- 16.34 --- 30.19
43-1011	First-Line Supervisors of Office and	143	1,430	\$23.72	19.07 --- 23.72 --- 29.68
43-2011	Switchboard Operators, Including	6	60	\$13.83	12.08 --- 13.83 --- 16.33
43-3011	Bill and Account Collectors	35	350	\$14.53	11.95 --- 14.53 --- 18.41
43-3021	Billing and Posting Clerks	49	490	\$16.38	13.81 --- 16.38 --- 19
43-3031	Bookkeeping, Accounting, and	93	930	\$17.46	14.3 --- 17.46 --- 21.42
43-3051	Payroll and Timekeeping Clerks	21	210	\$17.84	14.45 --- 17.84 --- 22.16
43-3061	Procurement Clerks	8	80	\$18.25	15.66 --- 18.25 --- 22.24
43-3071	Tellers	40	400	\$12.17	10.82 --- 12.17 --- 14.19
43-4031	Court, Municipal, and License	12	120	\$20.15	17.39 --- 20.15 --- 22.11
43-4051	Customer Service Representatives	265	2,650	\$16.09	12.94 --- 16.09 --- 21.88
43-4061	Eligibility Interviewers,	52	520	\$21.97	18.83 --- 21.97 --- 24.86
43-4071	File Clerks	19	190	\$14.42	10.85 --- 14.42 --- 17.88

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
43-4081	Hotel, Motel, and Resort Desk	19	190	\$10.99	9.78 --- 10.99 --- 12.63
43-4111	Interviewers, Except Eligibility and	14	140	\$18.64	15.01 --- 18.64 --- 24.66
43-4121	Library Assistants, Clerical	14	140	\$11.47	9.9 --- 11.47 --- 16.45
43-4151	Order Clerks	15	150	\$14.38	11.43 --- 14.38 --- 18.62
43-4161	Human Resources Assistants,	12	120	\$19.64	16.21 --- 19.64 --- 22.94
43-4171	Receptionists and Information	108	1,080	\$12.41	10.26 --- 12.41 --- 15.04
43-4199	Information and Record Clerks, All	21	210	\$15.73	13.98 --- 15.73 --- 18.39
43-5011	Cargo and Freight Agents	8	80	\$18.83	15.07 --- 18.83 --- 21.93
43-5031	Police, Fire, and Ambulance	7	70	\$21.65	18.11 --- 21.65 --- 25.94
43-5032	Dispatchers, Except Police, Fire,	36	360	\$17.81	14.13 --- 17.81 --- 24.32
43-5052	Postal Service Mail Carriers	21	210	\$27.50	25.63 --- 27.5 --- 27.51
43-5061	Production, Planning, and	25	250	\$20.62	16.12 --- 20.62 --- 26.65
43-5071	Shipping, Receiving, and Traffic	56	560	\$13.50	11.08 --- 13.5 --- 17.26
43-5081	Stock Clerks and Order Fillers	216	2,160	\$11.52	9.59 --- 11.52 --- 15.76
43-5111	Weighers, Measurers, Checkers,	19	190	\$11.90	10.19 --- 11.9 --- 15.65
43-6011	Executive Secretaries and	20	200	\$22.18	18.65 --- 22.18 --- 28.58
43-6012	Legal Secretaries	12	120	\$24.31	17.02 --- 24.31 --- 28.46
43-6013	Medical Secretaries	75	750	\$15.39	12.57 --- 15.39 --- 18.12
43-6014	Secretaries and Administrative	157	1,570	\$16.22	12.63 --- 16.22 --- 19.64
43-9021	Data Entry Keyers	9	90	\$14.50	13.7 --- 14.5 --- 15.85
43-9041	Insurance Claims and Policy	31	310	\$17.47	13.03 --- 17.47 --- 21.96
43-9051	Mail Clerks and Mail Machine	14	140	\$13.31	12.11 --- 13.31 --- 14.95
43-9061	Office Clerks, General	245	2,450	\$13.47	10.91 --- 13.47 --- 16.91
43-9199	Office and Administrative Support	67	670	\$15.12	11.29 --- 15.12 --- 20.22
45-1011	First-Line Supervisors of Farming,	21	210	\$14.44	12.45 --- 14.44 --- 23.47
45-2011	Agricultural Inspectors	9	90	\$20.09	18.83 --- 20.09 --- 23.8
45-2041	Graders and Sorters, Agricultural	42	420	\$9.60	9.23 --- 9.6 --- 9.97
45-2091	Agricultural Equipment Operators	66	660	\$10.07	9.1 --- 10.07 --- 10.97

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
45-2092	Farmworkers and Laborers, Crop,	1,078	10,780	\$9.61	9.23 --- 9.61 --- 10
45-2093	Farmworkers, Farm, Ranch, and	34	340	\$10.62	9.51 --- 10.62 --- 12.29
45-2099	Agricultural Workers, All Other	6	60	\$10.69	9.62 --- 10.69 --- 11.6
47-1011	First-Line Supervisors of	35	348	\$30.66	25.29 --- 30.66 --- 36.56
47-2031	Carpenters	47	469	\$18.25	13.81 --- 18.25 --- 23.18
47-2044	Tile and Marble Setters	8	80	\$17.70	14.31 --- 17.7 --- 25.79
47-2051	Cement Masons and Concrete	28	280	\$16.44	13.78 --- 16.44 --- 19.47
47-2061	Construction Laborers	114	1,144	\$15.35	10.88 --- 15.35 --- 18.31
47-2073	Operating Engineers and Other	36	356	\$28.25	21.47 --- 28.25 --- 38.45
47-2081	Drywall and Ceiling Tile Installers	17	170	\$17.90	13.81 --- 17.9 --- 23.66
47-2111	Electricians	54	540	\$23.45	16.61 --- 23.45 --- 32.69
47-2141	Painters, Construction and	9	90	\$20.18	14.52 --- 20.18 --- 25.23
47-2152	Plumbers, Pipefitters, and	29	290	\$25.64	19.22 --- 25.64 --- 29.34
47-2181	Roofers	17	170	\$23.13	16.79 --- 23.13 --- 27.53
47-2211	Sheet Metal Workers	9	90	\$20.51	15.9 --- 20.51 --- 26.72
47-2221	Structural Iron and Steel Workers	6	60	\$15.75	13.08 --- 15.75 --- 18.28
47-3013	Helpers--Electricians	6	60	\$12.03	10.68 --- 12.03 --- 14.58
47-4011	Construction and Building	6	60	\$23.87	18.53 --- 23.87 --- 31.76
47-4041	Hazardous Materials Removal	7	70	\$14.37	12.52 --- 14.37 --- 17.55
47-4051	Highway Maintenance Workers	6	60	\$21.16	18.45 --- 21.16 --- 25.26
49-1011	First-Line Supervisors of	41	410	\$29.88	24.2 --- 29.88 --- 35.64
49-2011	Computer, Automated Teller, and	8	80	\$18.37	13.47 --- 18.37 --- 22.64
49-2022	Telecommunications Equipment	35	350	\$30.84	21.88 --- 30.84 --- 34.74
49-2095	Electrical and Electronics	6	60	\$29.18	24.3 --- 29.18 --- 33.15
49-3011	Aircraft Mechanics and Service	16	160	\$24.15	19.19 --- 24.15 --- 29.76
49-3021	Automotive Body and Related	15	150	\$16.97	10.44 --- 16.97 --- 24.53
49-3023	Automotive Service Technicians	74	740	\$17.11	12.24 --- 17.11 --- 22.82
49-3031	Bus and Truck Mechanics and	29	290	\$22.99	17.38 --- 22.99 --- 28.03

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
49-3041	Farm Equipment Mechanics and	13	130	\$20.63	12.77 --- 20.63 --- 26.47
49-3042	Mobile Heavy Equipment	18	180	\$25.72	22.47 --- 25.72 --- 28.73
49-3093	Tire Repairers and Changers	22	220	\$11.38	9.51 --- 11.38 --- 13.95
49-9021	Heating, Air Conditioning, and	37	370	\$19.74	16.11 --- 19.74 --- 26.34
49-9031	Home Appliance Repairers	12	120	\$18.15	14.4 --- 18.15 --- 22.45
49-9041	Industrial Machinery Mechanics	34	340	\$21.71	18.08 --- 21.71 --- 25.92
49-9043	Maintenance Workers, Machinery	8	80	\$17.00	13.68 --- 17 --- 21.91
49-9051	Electrical Power-Line Installers and	31	310	\$40.66	30.15 --- 40.66 --- 46.34
49-9052	Telecommunications Line Installers	19	190	\$32.52	29.71 --- 32.52 --- 35.29
49-9062	Medical Equipment Repairers	5	50	\$21.01	19.5 --- 21.01 --- 22.52
49-9071	Maintenance and Repair Workers,	94	940	\$17.13	12.85 --- 17.13 --- 22.17
49-9098	Helpers--Installation, Maintenance,	15	150	\$11.22	9.98 --- 11.22 --- 13.24
49-9099	Installation, Maintenance, and	8	80	\$16.25	13.16 --- 16.25 --- 22.48
51-1011	First-Line Supervisors of	23	230	\$24.74	18.73 --- 24.74 --- 30
51-2041	Structural Metal Fabricators and	12	120	\$17.64	14.23 --- 17.64 --- 21.01
51-2092	Team Assemblers	40	400	\$11.96	9.69 --- 11.96 --- 15.11
51-2099	Assemblers and Fabricators, All	15	150	\$11.74	9.86 --- 11.74 --- 15.28
51-3011	Bakers	19	190	\$13.27	9.63 --- 13.27 --- 19.15
51-3021	Butchers and Meat Cutters	20	200	\$11.68	9.68 --- 11.68 --- 19.8
51-3022	Meat, Poultry, and Fish Cutters and	41	410	\$11.37	10.21 --- 11.37 --- 13.66
51-3023	Slaughterers and Meat Packers	41	410	\$11.68	10.37 --- 11.68 --- 14.11
51-3091	Food and Tobacco Roasting,	6	60	\$9.63	9.23 --- 9.63 --- 10.02
51-3092	Food Batchmakers	16	160	\$9.92	9.34 --- 9.92 --- 13.59
51-3099	Food Processing Workers, All	9	90	\$9.69	9.03 --- 9.69 --- 11.49
51-4041	Machinists	19	190	\$17.75	11.4 --- 17.75 --- 21.88
51-4121	Welders, Cutters, Solderers, and	22	220	\$15.58	13.12 --- 15.58 --- 18.4
51-4122	Welding, Soldering, and Brazing	6	60	\$16.63	14.11 --- 16.63 --- 18.85
51-6011	Laundry and Dry-Cleaning Workers	24	240	\$12.12	9.88 --- 12.12 --- 13.89

EMSI OCCSOC	Occupation	Annual Openings	Annual Opening Over Ten Years (15-25)	Median Hourly Pay	Pay Range (25th-50th-75th)
51-8013	Power Plant Operators	7	70	\$42.33	36.82 --- 42.33 --- 49.47
51-8031	Water and Wastewater Treatment	12	120	\$22.78	18.43 --- 22.78 --- 28.02
51-9023	Mixing and Blending Machine	11	110	\$22.56	12.36 --- 22.56 --- 27.09
51-9061	Inspectors, Testers, Sorters,	39	390	\$11.69	9.47 --- 11.69 --- 17.4
51-9111	Packaging and Filling Machine	47	470	\$10.85	9.7 --- 10.85 --- 11.96
51-9198	Helpers--Production Workers	35	350	\$10.24	9.38 --- 10.24 --- 14.06
51-9199	Production Workers, All Other	26	260	\$9.91	9.34 --- 9.91 --- 11.53
53-1021	First-Line Supervisors of Helpers,	23	230	\$20.47	16.10 --- 20.47 --- 24.76
53-1031	First-Line Supervisors of	27	270	\$23.82	18.36 --- 23.82 --- 30.33
53-2021	Air Traffic Controllers	6	60	\$59.81	42.56 --- 59.81 --- 72.77
53-3021	Bus Drivers, Transit and Intercity	9	90	\$14.96	13.34 --- 14.96 --- 20.10
53-3022	Bus Drivers, School or Special	40	400	\$15.81	13.50 --- 15.81 --- 19.3
53-3031	Driver/Sales Workers	46	460	\$15.43	9.95 --- 15.43 --- 22.62
53-3032	Heavy and Tractor-Trailer Truck	206	2,060	\$18.98	16.25 --- 18.98 --- 23.17
53-3033	Light Truck or Delivery Services	79	790	\$13.00	9.67 --- 13.00 --- 17.50
53-3041	Taxi Drivers and Chauffeurs	19	190	\$10.98	10.07 --- 10.98 --- 11.93
53-3099	Motor Vehicle Operators, All Other	7	70	\$14.29	11.33 --- 14.29 --- 19.71
53-6021	Parking Lot Attendants	6	60	\$9.71	9.27 --- 9.71 --- 10.32
53-6031	Automotive and Watercraft Service	20	200	\$10.36	9.45 --- 10.36 --- 11.87
53-7051	Industrial Truck and Tractor	58	580	\$13.53	10.46 --- 13.53 --- 17.83
53-7061	Cleaners of Vehicles and	81	810	\$10.02	9.37 --- 10.02 --- 11.83
53-7062	Laborers and Freight, Stock, and	351	3,510	\$10.03	9.37 --- 10.03 --- 13.21
53-7063	Machine Feeders and Offbearers	6	60	\$11.73	9.71 --- 11.73 --- 15.26
53-7064	Packers and Packagers, Hand	156	1,560	\$9.78	9.30 --- 9.78 --- 10.92
53-7081	Refuse and Recyclable Material	13	130	\$11.93	9.66 --- 11.93 --- 19.78
55-9999	Military occupations	36	360	\$16.42	12.34 --- 16.42 --- 19.49

Source: Applied Development Economics, based on EMSI Occupational Trends Data Q4 2015 QCEW and non-QCEW

Table 29 — Employment Projections by Industry Clusters: Agriculture: Distribution Fresno County

Ag and Food -- Distribution		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025p	2015-2025	
Total		21,168	25,097	3,929	1.7%
Supermarkets and Other Grocery (except Convenience) Stores	445110	5,937	6,916	979	1.5%
Other Grocery and Related Products Merchant Wholesalers	424490	1,858	2,697	839	3.8%
Fresh Fruit and Vegetable Merchant Wholesalers	424480	1,469	1,947	478	2.9%
Specialized Freight (except Used Goods) Trucking, Local	484220	1,265	1,726	461	3.2%
General Freight Trucking, Long-Distance, Truckload	484121	902	1,143	241	2.4%
Specialized Freight (except Used Goods) Trucking, Long-Distance	484230	334	557	223	5.3%
Packing and Crating	488991	369	585	216	4.7%
Wine and Distilled Alcoholic Beverage Merchant Wholesalers	424820	230	404	174	5.8%
Farm Supplies Merchant Wholesalers	424910	1,048	1,160	112	1.0%
Grain and Field Bean Merchant Wholesalers	424510	216	327	111	4.2%
Beer, Wine, and Liquor Stores	445310	358	451	94	2.4%
Freight Transportation Arrangement	488510	336	421	85	2.3%
Fish and Seafood Merchant Wholesalers	424460	87	156	70	6.1%
Beer and Ale Merchant Wholesalers	424810	464	529	65	1.3%
Packaged Frozen Food Merchant Wholesalers	424420	137	199	62	3.8%
Meat Markets	445210	178	229	51	2.6%
Dairy Product (except Dried or Canned) Merchant Wholesalers	424430	112	162	51	3.8%
Convenience Stores	445120	516	558	42	0.8%
Refrigerated Warehousing and Storage	493120	255	294	39	1.4%
Other Airport Operations	488119	112	145	34	2.7%
Rail transportation	482110	334	366	31	0.9%
Baked Goods Stores	445291	53	82	28	4.4%
General Freight Trucking, Long-Distance, Less Than Truckload	484122	636	664	28	0.0%
Confectionery and Nut Stores	445292	71	99	28	0.0%

Ag and Food -- Distribution		Employment		Change	Ann. Growth Rate
Meat and Meat Product Merchant Wholesalers	424470	135	160	25	0.0%
Confectionery Merchant Wholesalers	424450	219	231	12	0.0%
Nonscheduled Chartered Passenger Air Transportation	481211	3	11	8	13.8%
Scheduled Freight Air Transportation	481112	84	92	8	0.9%
General Freight Trucking, Local	484110	1,370	1,372	2	0.0%
Nonscheduled Chartered Freight Air Transportation	481212	17	18	1	0.5%
Poultry and Poultry Product Merchant Wholesalers	424440	<10	<10	Unknown	
Fish and Seafood Markets	445220	<10	<10	Unknown	
Deep Sea Freight Transportation	483111	<10	<10	Unknown	
Coastal and Great Lakes Freight Transportation	483113	<10	<10	Unknown	
Other Warehousing and Storage	493190	17	14	-3	-1.9%
Other Support Activities for Air Transportation	488190	264	261	-3	-0.1%
Other Farm Product Raw Material Merchant Wholesalers	424590	52	44	-8	-1.6%
Livestock Merchant Wholesalers	424520	29	20	-9	-3.6%
Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	424930	36	3	-33	-22.1%
All Other Specialty Food Stores	445299	210	149	-60	-3.3%
General Warehousing and Storage	493110	872	725	-146	-1.8%
General Line Grocery Merchant Wholesalers	424410	211	24	-186	-19.5%
Scheduled Passenger Air Transportation	481111	363	144	-219	-8.8%

Source: Applied Development Economics, based on EMSI 2015 Q4 QCEW and Non-QCEW Industry Employment Data (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\05_draft_Fresno-update.xlsx T10r)

Table 30 — Employment Projections by Industry Clusters: Agriculture: Processing Fresno County

Ag and Food -- Processing		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025p	2015-2025	
Total		13,595	13,768	173	0.1%
Poultry Processing	311615	3,647	4,053	405	1.1%
Animal (except Poultry) Slaughtering	311611	1,918	2,233	315	1.5%
Meat Processed from Carcasses	311612	430	665	235	4.5%
Wineries	312130	617	813	196	2.8%
Corrugated and Solid Fiber Box Manufacturing	322211	396	536	140	3.1%
Perishable Prepared Food Manufacturing	311991	178	278	100	4.6%
Wood Container and Pallet Manufacturing	321920	274	336	61	2.0%
Frozen Fruit, Juice, and Vegetable Manufacturing	311411	1,181	1,219	39	0.3%
Roasted Nuts and Peanut Butter Manufacturing	311911	120	142	22	1.7%
Medicinal and Botanical Manufacturing	325411	22	42	20	6.7%
Broadwoven Fabric Mills	313210	31	43	12	3.5%
All Other Miscellaneous Food Manufacturing	311999	3	14	11	16.6%
Ice Cream and Frozen Dessert Manufacturing	311520	27	30	4	1.3%
Rice Milling	311212	<10	<10	Unknown	
Nonchocolate Confectionery Manufacturing	311340	<10	<10	Unknown	
Cheese Manufacturing	311513	<10	<10	Unknown	
Spice and Extract Manufacturing	311942	<10	<10	Unknown	
Bottled Water Manufacturing	312112	<10	<10	Unknown	
Ice Manufacturing	312113	<10	<10	Unknown	
Breweries	312120	<10	<10	Unknown	
Nonwoven Fabric Mills	313230	<10	<10	Unknown	
Folding Paperboard Box Manufacturing	322212	153	152	-1	-0.1%
Flour Milling	311211	3	0	-3	-100.0%
Frozen Cakes, Pies, and Other Pastries Manufacturing	311813	11	3	-8	-12.0%
Ag and Food -- Processing		Employment		Change	Ann. Growth Rate

Dog and Cat Food Manufacturing	311111	44	36	-8	-2.0%
Dry, Condensed, and Evaporated Dairy Product Manufacturing	311514	105	90	-15	-1.5%
Tortilla Manufacturing	311830	620	604	-16	-0.3%
Distilleries	312140	89	73	-16	-2.0%
Breakfast Cereal Manufacturing	311230	20	3	-17	-17.5%
Frozen Specialty Food Manufacturing	311412	44	25	-19	-5.6%
Soft Drink Manufacturing	312111	497	475	-21	-0.4%
Leather and Hide Tanning and Finishing	316110	24	3	-21	-18.9%
Beet Sugar Manufacturing	311313	27	0	-27	-100.0%
Other Animal Food Manufacturing	311119	33	3	-30	-21.3%
Rendering and Meat Byproduct Processing	311613	96	65	-31	-3.8%
Cookie and Cracker Manufacturing	311821	50	3	-47	-24.6%
Retail Bakeries	311811	198	116	-82	-5.2%
Fluid Milk Manufacturing	311511	162	3	-159	-32.9%
Commercial Bakeries	311812	237	41	-196	-16.1%
Dried and Dehydrated Food Manufacturing	311423	1,036	742	-294	-3.3%
Fruit and Vegetable Canning	311421	1,278	902	-376	-3.4%

Source: Applied Development Economics, based on EMSI 2015 Q4 QCEW and Non-QCEW Industry Employment Data (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\05_draft_Fresno-update.xlsx T11r)

Table 31 — Employment Projections by Industry Clusters: Agriculture: Production Fresno County

Ag and Food -- Production		Employment		Change	Ann. Growth Rate
NAICS	Industry	2015	2025 proj.	2015-2025	
Total		17,660	15,863	-1,797	-1.1%
Forest Nurseries, Forest Products	113210	30	18	-12	-5.2%
Animal Production and Aquaculture	112000	2,173	2,030	-143	-0.7%
Crop Production	111000	15,457	13,815	-1,642	-1.1%

Source: Applied Development Economics, based on EMSI 2015 Q4 QCEW and Non-QCEW Industry Employment Data (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\05_draft_Fresno-update.xlsx T12r)

Table 32 — Employment Projections by Industry Clusters: Agriculture: Support Fresno County

Ag and Food -- Support		Employment		Change	Ann. GrowthRate
Industry	NAICS	2015	2025 proj.	2015-2025	
Total		51,308	56,284	4,976	0.9%
Temporary Help Services	561320	6,155	8,461	2,305	3.2%
Farm Labor Contractors and Crew Leaders	115115	21,935	23,422	1,487	0.7%
Postharvest Crop Activities (except Cotton Ginning)	115114	7,159	8,184	1,025	1.3%
Water and Sewer Line and Related Structures Construction	237110	902	1,216	313	3.0%
Testing Laboratories	541380	467	696	229	4.1%
Other Scientific and Technical Consulting Services	541690	803	1,030	226	2.5%
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	811310	622	816	194	2.7%
Other Services Related to Advertising	541890	503	640	137	2.4%
Process, Physical Distribution, and Logistics Consulting Services	541614	148	273	125	6.3%
Crop Harvesting, Primarily by Machine	115113	507	609	102	1.9%
Veterinary Services	541940	500	592	92	1.7%
Exterminating and Pest Control Services	561710	457	539	82	1.7%
Materials Recovery Facilities	562920	155	227	72	3.9%
Other Commercial and Industrial Machinery and Equipment Rental and Leasing	532490	150	217	68	3.8%
Farm and Garden Machinery and Equipment Merchant Wholesalers	423820	534	590	56	1.0%
Water Supply and Irrigation Systems	221310	142	196	54	3.3%
Metal Tank (Heavy Gauge) Manufacturing	332420	108	157	49	3.8%
Industrial Machinery and Equipment Merchant Wholesalers	423830	795	841	46	0.6%
Environmental Consulting Services	541620	47	82	35	5.7%
Fertilizer (Mixing Only) Manufacturing	325314	62	87	26	3.5%
Surveying and Mapping (except Geophysical) Services	541370	82	107	25	2.7%
All Other Rubber Product Manufacturing	326299	17	39	23	9.0%
Phosphatic Fertilizer Manufacturing	325312	58	80	22	3.3%
Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	333924	67	86	19	2.6%
Landscaping Services	561730	1,433	1,449	16	0.1%
Service Establishment Equipment and Supplies Merchant Wholesalers	423850	103	117	15	1.4%

Public Relations Agencies	541820	39	53	14	3.2%
Pump and Pumping Equipment Manufacturing	333911	504	514	9	0.2%
Other Nonhazardous Waste Treatment and Disposal	562219	37	46	9	2.3%
Packaging Machinery Manufacturing	333993	366	374	8	0.2%
Media Representatives	541840	37	39	3	0.7%
Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesale	423860	15	16	1	0.6%
Support Activities for Forestry	115310	<10	<10	Unknown	
Geophysical Surveying and Mapping Services	541360	<10	<10	Unknown	
Media Buying Agencies	541830	6	6	0	0.0%
Advertising Material Distribution Services	541870	6	3	-3	-6.7%
Advertising Agencies	541810	156	152	-4	-0.2%
Industrial Supplies Merchant Wholesalers	423840	178	167	-11	-0.6%
Marketing Consulting Services	541613	59	42	-17	-3.3%
Outdoor Advertising	541850	32	13	-19	-8.7%
Solid Waste Combustors and Incinerators	562213	24	3	-21	-18.6%
Prefabricated Metal Building and Component Manufacturing	332311	54	33	-21	-4.9%
Offices of Other Holding Companies	551112	29	3	-26	-20.2%
Pesticide and Other Agricultural Chemical Manufacturing	325320	53	18	-36	-10.6%
Nitrogenous Fertilizer Manufacturing	325311	43	3	-40	-23.3%
Support Activities for Animal Production	115210	84	39	-45	-7.3%
Farm Management Services	115116	605	557	-48	-0.8%
Nursery, Garden Center, and Farm Supply Stores	444220	205	143	-62	-3.5%
Outdoor Power Equipment Stores	444210	82	20	-62	-13.3%
Farm Machinery and Equipment Manufacturing	333111	417	348	-68	-1.8%
Cotton Ginning	115111	74	3	-71	-27.4%
Soil Preparation, Planting, and Cultivating	115112	1,216	1,118	-99	-0.8%
Real Estate Credit	522292	203	43	-161	-14.5%
Office Administrative Services	561110	629	302	-327	-7.1%
Corporate, Subsidiary, and Regional Managing Offices	551114	2,240	1,468	-772	-4.1%

Source: Applied Development Economics, based on EMSI 2015 Q4 QCEW and Non-QCEW Industry Employment Data (Internal file: P:\CCWC Labor Force 2015\03_NEXT-ASKS\TABLES\05_draft_Fresno-update.xlsx T13r)

Table 33 — Employment Projections by Industry Clusters: Energy Fresno County

Fresno County			Employment		Change	Ann. Growth Rate
Energy Cluster and Sub-Clusters	Industry	NAICS	2015	2025p	2015-2025	
	Total		21,288	26,079	4,790	2.1%
01 Energy Core--01Petroleum	Crude Petroleum and Natural Gas Extraction	211111	94	126	31	1.9%
01 Energy Core--01Petroleum	Drilling Oil and Gas Wells	213111	<10	<10	Unknown	
01 Energy Core--01Petroleum	Petroleum Refineries	324110	<10	<10	Unknown	
01 Energy Core--02 Petroelum Distribution	Petroleum Bulk Stations and Terminals	424710	146	192	45	2.8%
01 Energy Core--02 Petroelum Distribution	Pipeline Transportation of Crude Oil	486110	51	62	12	4.2%
01 Energy Core--02 Petroelum Distribution	Pipeline Transportation of Refined Petroleum Products	486910	<10	<10	Unknown	
01 Energy Core--02 Petroelum Distribution	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	424720	90	76	-14	3.2%
01 Energy Core--03 Power Generation	Fossil Fuel Electric Power Generation	221112	1,590	2,339	749	1.3%
01 Energy Core--03 Power Generation	Hydroelectric Power Generation	221111	119	0	-119	0.0%
01 Energy Core--03 Power Generation	Natural Gas Distribution	221210	310	3	-307	1.2%
01 Energy Core--04 Alt Energy Production	Water and Sewer Line and Related Structures Construction	237110	902	1,216	313	
01 Energy Core--04 Alt Energy Production	Roofing Contractors	238160	429	642	213	6.9%
01 Energy Core--05 Alt Energy Distribution	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	423610	344	413	70	
01 Energy Core--05 Alt Energy Distribution	Other Electronic Parts and Equipment Merchant Wholesalers	423690	55	53	-2	2.8%
01 Energy Core--05 Alt Energy Distribution	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	423720	197	155	-42	5.2%

01 Energy Core--06 Energy Efficiency	Electrical Contractors and Other Wiring Installation Contractors	238210	1,555	2,071	516	2.8%
01 Energy Core--06 Energy Efficiency	Plumbing, Heating, and Air-Conditioning Contractors	238220	1,688	2,295	607	-2.0%
01 Energy Core--06 Energy Efficiency	Drywall and Insulation Contractors	238310	1,245	1,431	186	2.4%
01 Energy Core--07 Energy Equipment Mfg	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing	335122	23	46	23	
01 Energy Core--07 Energy Equipment Mfg	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	334512	11	16	5	-100.0%
01 Energy Core--07 Energy Equipment Mfg	Turbine and Turbine Generator Set Units Manufacturing	333611	<10	<10	Unknown	
01 Energy Core--07 Energy Equipment Mfg	Residential Electric Lighting Fixture Manufacturing	335121	<10	<10	Unknown	
01 Energy Core--07 Energy Equipment Mfg	Other Lighting Equipment Manufacturing	335129	<10	<10	Unknown	
02 Energy related--01 Manufacturing	All Other Converted Paper Product Manufacturing	322299	114	171	58	2.6%
02 Energy related--01 Manufacturing	Relay and Industrial Control Manufacturing	335314	14	28	14	
02 Energy related--01 Manufacturing	All Other Miscellaneous Electrical Equipment and Component Manufacturing	335999	<10	<10	Unknown	
02 Energy related--01 Manufacturing	Rendering and Meat Byproduct Processing	311613	96	65	-31	
02 Energy related--02 Services	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	811310	622	816	194	1.7%
02 Energy related--02 Services	Other Electronic and Precision Equipment Repair and Maintenance	811219	102	178	76	6.3%
02 Energy related--02 Services	Miscellaneous Intermediation	523910	59	112	53	
02 Energy related--02 Services	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	533110	104	144	40	3.1%
02 Energy related--02 Services	Miscellaneous Financial Investment Activities	523999	<10	<10	Unknown	
02 Energy related--03 Research	Prof., Scientific, Tech.	541	11,302	13,404	2,102	2.8%

Source: Applied Development Economics, based on EMSI Industry Employment Trends Data Q4 2015 QCEW and non-QCEW (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T14r)

Table 34 — Employment Projections by Industry Clusters: Health and Wellness: Delivery Fresno County

Health and Wellness -- Health Care - Delivery		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025p	2015-2025	
Total		38,780	45,563	6,784	1.6%
Offices of Physicians (except Mental Health Specialists)	621111	7,802	9,622	1,821	2.1%
General Medical and Surgical Hospitals	622110	11,730	13,538	1,809	1.4%
HMO Medical Centers	621491	1,383	2,310	927	5.3%
Home Health Care Services	621610	1,134	1,597	463	3.5%
Nursing Care Facilities (Skilled Nursing Facilities)	623110	3,713	3,993	280	0.7%
Offices of Optometrists	621320	498	777	279	4.6%
Continuing Care Retirement Communities	623311	728	1,002	273	3.2%
Assisted Living Facilities for the Elderly	623312	1,162	1,349	187	1.5%
Offices of Dentists	621210	2,330	2,516	187	0.8%
Diagnostic Imaging Centers	621512	320	501	181	4.6%
Offices of Physical, Occupational and Speech Therapists, and Audiologists	621340	544	704	161	2.6%
Kidney Dialysis Centers	621492	310	422	111	3.1%
Offices of Mental Health Practitioners (except Physicians)	621330	291	398	107	3.2%
Ambulance Services	621910	601	697	96	1.5%
Hospitals (State Government)	902622	1,850	1,913	62	0.3%
Family Planning Centers	621410	151	207	56	3.2%
All Other Outpatient Care Centers	621498	210	259	48	2.1%
Residential Mental Health and Substance Abuse Facilities	623220	441	478	37	0.8%
Vocational Rehabilitation Services	624310	1,027	1,059	32	0.3%
Offices of Chiropractors	621310	314	336	22	0.7%
Offices of Physicians, Mental Health Specialists	621112	61	70	9	1.4%
Outpatient Mental Health and Substance Abuse Centers	621420	303	306	3	0.1%
Hospitals (Local Government)	903622	44	46	2	0.4%
Medical Laboratories	621511	178	179	1	0.1%
Offices of Podiatrists	621391	63	64	1	0.1%
Blood and Organ Banks	621991	159	148	-10	-0.7%

Health and Wellness -- Health Care - Delivery		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025p	2015-2025	
Freestanding Ambulatory Surgical and Emergency Centers	621493	97	56	-41	-5.3%
Residential Intellectual and Developmental Disability Facilities	623210	757	658	-99	-1.4%
Other Residential Care Facilities	623990	580	359	-222	-4.7%

Source: Applied Development Economics, based on EMSI Industry Employment Trends Data Q4 2015 QCEW and non-QCEW (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T15r)

Table 35 — Employment Projections by Industry Clusters: Health and Wellness: All Others: Fresno County

Fresno County			Employment		Change	Ann. Growth Rate
Health and Wellness: All Others	Industry	NAICS	2015	2025 proj.	2015-2025	
	Total		20,583	29,233	8,650	3.6%
Health and Wellness--Health Care--02 Pharmaceuticals	Medicinal and Botanical Manufacturing	325411	22	42	20	6.7%
Health and Wellness--Health Care--03 Wellness and Fitness	Pharmaceutical Preparation Manufacturing	325412	<10	<10	Unknown	
Health and Wellness--Health Care--03 Wellness and Fitness	Pharmacies and Drug Stores	446110	1,993	2,304	311	1.5%
Health and Wellness--Health Care--03 Wellness and Fitness	All Other Health and Personal Care Stores	446199	185	249	63	3.0%
Health and Wellness--Health Care--03 Wellness and Fitness	Offices of All Other Miscellaneous Health Practitioners	621399	98	135	37	
Health and Wellness--Health Care--03 Wellness and Fitness	Optical Goods Stores	446130	96	119	24	2.3%
Health and Wellness--Health Care--03 Wellness and Fitness	All Other Miscellaneous Ambulatory Health Care Services	621999	40	44	4	0.9%
Health and Wellness--Health Care--03 Wellness and Fitness	Food (Health) Supplement Stores	446191	80	73	-8	-1.0%
Health and Wellness--Health Care--03 Wellness and Fitness	Home Health Equipment Rental	532291	26	3	-23	-19.3%

Fresno County			Employment		Change	Ann. Growth Rate
Health and Wellness: All Others	Industry	NAICS	2015	2025 proj.	2015-2025	
Health and Wellness--Health Care--04 Medical devices manufacturing	Diet and Weight Reducing Centers	812191	31	3	-28	-20.7%
Health and Wellness--Health Care--04 Medical devices manufacturing	Ophthalmic Goods Manufacturing	339115	<10	<10	Unknown	
Health and Wellness--Health Care--04 Medical devices manufacturing	Dental Equipment and Supplies Manufacturing	339114	26	17	-10	-4.5%
Health and Wellness--Health Care--04 Medical devices manufacturing	Dental Laboratories	339116	72	44	-28	-4.8%
Health and Wellness--Health Care--05 Supplies and Services	Surgical Appliance and Supplies Manufacturing	339113	406	373	-33	-0.9%
Health and Wellness--Health Care--05 Supplies and Services	Voluntary Health Organizations	813212	205	329	124	4.8%
Health and Wellness--Health Care--05 Supplies and Services	Drugs and Druggists' Sundries Merchant Wholesalers	424210	220	337	117	4.4%
Health and Wellness--Health Care--05 Supplies and Services	Other Professional Equipment and Supplies Merchant Wholesalers	423490	11	3	-8	-12.5%
Health and Wellness--Health Care--06 Other Services	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	423450	59	49	-10	-1.8%
Health and Wellness--Health Care--06 Other Services	Child and Youth Services	624110	646	889	243	3.2%
Health and Wellness--Health Care--06 Other Services	Services for the Elderly and Persons with Disabilities	624120	14,213	22,056	7,844	4.5%
Health and Wellness--Health Care--06 Other Services	Other Individual and Family Services	624190	519	475	-44	-0.9%
Health and Wellness--Health Care--06 Other Services	Community Food Services	624210	112	152	40	3.1%
Health and Wellness--Health Care--06 Other Services	Temporary Shelters	624221	139	164	24	1.6%
Health and Wellness--Health Care--06 Other Services	Other Community Housing Services	624229	24	6	-18	-13.0%
Health and Wellness--Health Care--06 Other Services	Emergency and Other Relief Services	624230	28	27	-1	-0.2%

Source: Applied Development Economics, based on EMSI Industry Employment Trends Data Q4 2015 QCEW and non-QCEW (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T16r)

Table 36 — Employment Projections by Industry Clusters: Logistics: Fresno County

Logistics --		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025 proj.	2015-2025	
Total		10,228	11,841	1,613	1.5%
Specialized Freight (except Used Goods) Trucking, Local	484220	1,265	1,726	461	3.2%
General Freight Trucking, Long-Distance, Truckload	484121	902	1,143	241	2.4%
Specialized Freight (except Used Goods) Trucking, Long-Distance	484230	334	557	223	5.3%
Packing and Crating	488991	369	585	216	4.7%
Special Needs Transportation	485991	301	487	186	4.9%
Other Support Activities for Road Transportation	488490	183	327	143	6.0%
Process, Physical Distribution, and Logistics Consulting Services	541614	148	273	125	6.3%
Motor Vehicle Towing	488410	273	395	122	3.8%
Freight Transportation Arrangement	488510	336	421	85	2.3%
Couriers and Express Delivery Services	492110	1,112	1,169	57	0.5%
Local Messengers and Local Delivery	492210	118	171	53	3.8%
Refrigerated Warehousing and Storage	493120	255	294	39	1.4%
Other Airport Operations	488119	112	145	34	2.7%
Rail transportation	482110	334	366	31	0.9%
General Freight Trucking, Long-Distance, Less Than Truckload	484122	636	664	28	0.4%
Used Household and Office Goods Moving	484210	124	145	21	1.6%
All Other Transit and Ground Passenger Transportation	485999	23	38	15	5.1%
Other Urban Transit Systems	485119	25	36	11	3.7%
Taxi Service	485310	3	14	11	16.6%
All Other Support Activities for Transportation	488999	56	65	9	1.4%
Nonscheduled Chartered Passenger Air Transportation	481211	3	11	8	13.8%
Scheduled Freight Air Transportation	481112	84	92	8	0.9%
Charter Bus Industry	485510	49	56	7	1.3%
General Freight Trucking, Local	484110	1,370	1,372	2	0.0%
Nonscheduled Chartered Freight Air Transportation	481212	17	18	1	0.5%

Logistics --		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025 proj.	2015-2025	
Deep Sea Freight Transportation	483111	<10	<10	Unknown	
Coastal and Great Lakes Freight Transportation	483113	<10	<10	Unknown	
Bus and Other Motor Vehicle Transit Systems	485113	<10	<10	Unknown	
Other Warehousing and Storage	493190	17	14	-3	-1.9%
Other Support Activities for Air Transportation	488190	264	261	-3	-0.1%
Boat Building	336612	15	3	-12	-14.7%
Packaging and Labeling Services	561910	18	3	-15	-16.4%
Interurban and Rural Bus Transportation	485210	71	49	-23	-3.7%
School and Employee Bus Transportation	485410	166	63	-104	-9.3%
General Warehousing and Storage	493110	872	725	-146	-1.8%
Scheduled Passenger Air Transportation	481111	363	144	-219	-8.8%

Source: Applied Development Economics, based on EMSI Industry Employment Trends Data Q4 2015 QCEW and non-QCEW (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T17r)

Table 37 — Employment Projections by Industry Clusters: Manufacturing: All Others Fresno County

Manufacturing -- Other		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025 proj.	2015-2025	
Total		6,577	6,069	-509	-0.8%
Paint and Coating Manufacturing	325510	124	259	135	7.7%
Urethane and Other Foam Product (except Polystyrene) Manufacturing	326150	124	253	129	7.4%
Mattress Manufacturing	337910	119	232	113	6.9%
Motor Vehicle Body Manufacturing	336211	304	403	99	2.8%
Motor Vehicle Metal Stamping	336370	73	152	79	7.6%
Glass Product Manufacturing Made of Purchased Glass	327215	161	240	78	4.0%
All Other Miscellaneous Fabricated Metal Product Manufacturing	332999	60	113	52	6.4%
Sporting and Athletic Goods Manufacturing	339920	98	147	49	4.2%
Manufacturing -- Other		Employment	Change	Ann.	

				Growth Rate	
Industry	NAICS	2015	2025 proj.	2015- 2025	3.8%
Sheet Metal Work Manufacturing	332322	165	212	47	2.5%
All Other Miscellaneous Textile Product Mills	314999	34	75	41	8.3%
Concrete Block and Brick Manufacturing	327331	33	73	40	8.3%
Custom Roll Forming	332114	82	114	32	3.3%
Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	334513	54	82	29	4.4%
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	332812	75	104	28	3.2%
Plastics Material and Resin Manufacturing	325211	20	48	28	9.2%
Fertilizer (Mixing Only) Manufacturing	325314	62	87	26	3.5%
All Other Rubber Product Manufacturing	326299	17	39	23	9.0%
Phosphatic Fertilizer Manufacturing	325312	58	80	22	3.3%
Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	333924	67	86	19	2.6%
Machine Shops	332710	289	308	19	0.6%
All Other Miscellaneous General Purpose Machinery Manufacturing	333999	131	145	15	1.1%
Automobile Manufacturing	336111	23	34	10	3.7%
Motor Vehicle Transmission and Power Train Parts Manufacturing	336350	24	33	10	3.5%
Commercial Screen Printing	323113	53	63	9	1.6%
Other Electronic Component Manufacturing	334419	17	27	9	4.4%
Electronic Computer Manufacturing	334111	3	12	9	15.3%
Books Printing	323117	3	12	9	14.9%
Institutional Furniture Manufacturing	337127	16	25	9	4.5%
Packaging Machinery Manufacturing	333993	366	374	8	0.2%
Soap and Other Detergent Manufacturing	325611	3	11	8	13.9%
Construction Machinery Manufacturing	333120	143	147	4	0.3%
All Other Miscellaneous Chemical Product and Preparation Manufacturing	325998	26	30	4	1.3%
Bolt, Nut, Screw, Rivet, and Washer Manufacturing	332722	0	3	3	
Power-Driven Handtool Manufacturing	333991	13	16	3	2.0%

Manufacturing -- Other		Employment	Change	Ann. Growth Rate	
Industry	NAICS	2015	2025 proj.	2015- 2025	3.8%
Other Millwork (including Flooring)	321918	3	3	0	100.0%
Paper (except Newsprint) Mills	322121	3	3	0	100.0%
All Other Basic Organic Chemical Manufacturing	325199	3	3	0	0.0%
Plastics Packaging Film and Sheet (including Laminated) Manufacturing	326112	3	3	0	0.0%
Tire Retreading	326212	3	3	0	0.0%
Rubber and Plastics Hoses and Belting Manufacturing	326220	3	3	0	0.0%
Other Pressed and Blown Glass and Glassware Manufacturing	327212	3	3	0	
Gypsum Product Manufacturing	327420	3	3	0	
Steel Foundries (except Investment)	331513	3	3	0	
Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	333415	3	3	0	
Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	333514	3	3	0	
Mechanical Power Transmission Equipment Manufacturing	333613	3	3	0	
Elevator and Moving Stairway Manufacturing	333921	3	3	0	
Telephone Apparatus Manufacturing	334210	3	3	0	
Audio and Video Equipment Manufacturing	334310	3	3	0	
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	334511	3	3	0	
Storage Battery Manufacturing	335911	3	3	0	
Primary Battery Manufacturing	335912	3	3	0	
Other Communication and Energy Wire Manufacturing	335929	3	3	0	
Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing	336330	3	3	0	
Aircraft Manufacturing	336411	3	3	0	
All Other Transportation Equipment Manufacturing	336999	3	3	0	
Showcase, Partition, Shelving, and Locker Manufacturing	337215	3	3	0	
Prefabricated Wood Building Manufacturing	321992	3	0	-3	

Manufacturing -- Other		Employment	Change	Ann. Growth Rate	
Industry	NAICS	2015	2025 proj.	2015-2025	3.8%
Rolled Steel Shape Manufacturing	331221	3	0	-3	
Nonupholstered Wood Household Furniture Manufacturing	337122	3	0	-3	
Office Furniture (except Wood) Manufacturing	337214	14	11	-3	
Overhead Traveling Crane, Hoist, and Monorail System Manufacturing	333923	40	36	-4	
Sign Manufacturing	339950	102	96	-5	
Fabricated Structural Metal Manufacturing	332312	410	398	-12	
Boat Building	336612	15	3	-12	
Industrial Gas Manufacturing	325120	15	3	-12	
Aluminum Foundries (except Die-Casting)	331524	56	43	-12	-2.5%
Engineered Wood Member (except Truss) Manufacturing	321213	14	0	-14	-100.0%
Prefabricated Metal Building and Component Manufacturing	332311	54	33	-21	-4.9%
All Other Miscellaneous Wood Product Manufacturing	321999	26	3	-23	-19.6%
Other Fabricated Wire Product Manufacturing	332618	65	38	-27	-5.1%
Truck Trailer Manufacturing	336212	31	3	-28	-20.7%
Other Metal Valve and Pipe Fitting Manufacturing	332919	31	3	-28	-20.9%
Plate Work Manufacturing	332313	57	27	-30	-7.2%
Fluid Power Cylinder and Actuator Manufacturing	333995	52	21	-31	-8.5%
Pesticide and Other Agricultural Chemical Manufacturing	325320	53	18	-36	-10.6%
Asphalt Shingle and Coating Materials Manufacturing	324122	39	3	-36	-22.6%
Nitrogenous Fertilizer Manufacturing	325311	43	3	-40	-23.3%
Ornamental and Architectural Metal Work Manufacturing	332323	46	3	-43	-23.9%
Truss Manufacturing	321214	46	3	-43	-23.9%
Travel Trailer and Camper Manufacturing	336214	54	3	-51	-25.1%
All Other Miscellaneous Manufacturing	339999	55	3	-52	-25.3%
Electroplating, Plating, Polishing, Anodizing, and Coloring	332813	111	57	-54	-6.5%
Wood Window and Door Manufacturing	321911	277	220	-56	-2.3%

Manufacturing -- Other		Employment	Change	Ann. Growth Rate	
Industry	NAICS	2015	2025 proj.	2015-2025	3.8%
Ready-Mix Concrete Manufacturing	327320	106	3	-103	-30.0%
All Other Plastics Product Manufacturing	326199	170	52	-118	-11.2%
Wood Kitchen Cabinet and Countertop Manufacturing	337110	127	3	-124	-31.2%
Flat Glass Manufacturing	327211	186	3	-183	-33.8%
Commercial Printing (except Screen and Books)	323111	230	36	-193	-16.8%
Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	334220	1,009	656	-353	-4.2%

Source: Applied Development Economics, based on EMSI Industry Employment Trends Data Q4 2015 QCEW and non-QCEW (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T18r)

Table 38 — Employment Projections By Industry Clusters: Water Flow Technologies Fresno County

Water Flow Technology --		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025 proj.	2015-2025	
		2,894	3,147	253	0.8%
Plastics Pipe and Pipe Fitting Manufacturing	326122	130	284	154	8.1%
Farm Supplies Merchant Wholesalers	424910	1,048	1,160	112	1.0%
Industrial Machinery and Equipment Merchant Wholesalers	423830	795	841	46	0.6%
Pump and Pumping Equipment Manufacturing	333911	504	514	9	0.2%
Farm Machinery and Equipment Manufacturing	333111	417	348	-68	-1.8%

Source: Applied Development Economics, based on EMSI Industry Employment Trends Data Q4 2015 QCEW and non-QCEW

Table 39 — Employment Projections by Industry Clusters: Heavy Construction: Fresno County

Heavy Construction		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025 proj.	2015-2025	
Total		1,971	2,769	798	3.5%
Water and Sewer Line and Related Structures Construction	237110	902	1,216	313	3.0%
Power and Communication Line and Related Structures Construction	237130	180	257	77	3.6%
Highway, Street, and Bridge Construction	237310	406	436	30	0.7%
Other Heavy and Civil Engineering Construction	237990	108	564	456	18.0%
Public Sector Hvy Constr.	237000	265	265	0	0.0%
Oil and Gas Pipeline and Related Structures Construction	237120	18	6	-12	-10.5%
Land Subdivision	237210	92	26	-67	-12.1%

Source: Applied Development Economics, based on EMSI Industry Employment Trends Data Q4 2015 QCEW and non-QCEW (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T20r)

**Table 40 — Employment Projections by Industry Clusters:
Accommodations and Food Services, and Retail: Fresno County**

Accommodations, Food and Retail		Employment		Change	Ann. Growth Rate
Industries	NAICS	2015	2025 proj.	2015-2025	
Retail	44-45	37,249	43,465	6,216	1.6%
Accommodations	721	1,634	1,829	195	1.1%
Food services	722	26,391	31,097	4,706	1.7%

Source: Applied Development Economics, based on EMSI Industry Employment Trends Data Q4 2015 QCEW and non-QCEW (Internal file: P:\CCWC Labor Force 2015\03_NEXT-TASKS\TABLES\06_draft_Fresno-update.xlsx T21r)

Table 41 — Employed Labor Force by Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	10,554	45,432	48,239	43,786	155,722	54,092	15,001	372,827
White	2,705	11,742	13,583	12,161	55,003	28,260	9,753	133,206
Did not earn HSD\GED	637	203	530	342	1,958	1,096	757	5,523
HSD\GED	672	2,735	2,505	2,503	11,706	5,076	1,613	26,808
Some college -- not attending	71	2,021	3,068	3,026	12,869	7,194	2,194	30,443
Some college -- attending	1,324	3,547	1,433	563	614	46	62	7,590
AA	0	1,049	1,455	1,622	6,811	3,080	1,127	15,144
BA+	0	2,188	4,592	4,104	21,045	11,768	4,001	47,699
Latino	6,072	26,616	26,346	24,436	76,274	18,485	3,504	181,732
Did not earn HSD\GED	1,866	3,636	5,345	7,318	31,863	8,164	1,729	59,922
HSD\GED	1,681	8,191	7,208	6,649	16,130	3,382	562	43,803
Some college -- not attending	238	5,892	6,798	4,586	13,646	3,459	597	35,216
Some college -- attending	2,251	6,017	1,864	1,014	1,011	88	18	12,263
AA	36	1,992	2,283	2,524	5,658	1,118	187	13,798
BA+	0	887	2,848	2,345	7,966	2,273	411	16,731
Other	1,777	7,074	8,310	7,190	24,446	7,348	1,744	57,889
Did not earn HSD\GED	595	569	639	643	3,416	1,705	293	7,861
HSD\GED	610	1,427	1,606	1,729	4,938	1,732	185	12,227
Some college -- not attending	172	1,719	2,079	1,186	4,663	1,120	351	11,291
Some college -- attending	358	2,069	332	58	407	0	0	3,224
AA	41	603	1,199	1,300	2,370	433	301	6,246
BA+	0	688	2,456	2,274	8,650	2,358	614	17,040

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

Table 42 — Full-Time Employed Labor Force by Age, Race\Ethnicity, and Educational Attainment (Persons 16 and Over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	1,036	16,526	28,308	30,092	110,368	37,791	7,986	232,106
White	157	3,670	8,063	8,401	41,580	20,225	5,143	87,238
Did not earn HSD\GED	0	33	140	265	1,033	456	337	2,264
HSD\GED	64	1,490	1,409	1,675	8,959	3,673	912	18,181
Some college -- not attending	0	780	1,802	2,070	10,148	5,026	1,045	20,871
Some college -- attending	93	335	750	213	422	22	0	1,834
AA	0	174	632	950	4,994	2,129	558	9,437
BA+	0	859	3,329	3,228	16,025	8,919	2,291	34,650
Latino	739	10,709	15,432	16,702	50,732	12,323	1,858	108,495
Did not earn HSD\GED	91	1,349	2,614	4,139	18,024	4,217	879	31,313
HSD\GED	327	3,998	4,149	4,721	10,714	2,477	347	26,733
Some college -- not attending	17	2,627	4,633	3,606	10,963	2,764	335	24,945
Some college -- attending	304	1,305	666	808	724	37	18	3,861
AA	0	1,002	1,698	1,789	3,892	962	66	9,409
BA+	0	427	1,674	1,639	6,414	1,865	213	12,233
Other	140	2,147	4,813	4,989	18,056	5,244	985	36,373
Did not earn HSD\GED	0	382	242	409	2,418	1,054	146	4,651
HSD\GED	65	440	1,049	1,166	3,731	1,190	86	7,727
Some college -- not attending	53	664	1,108	776	3,459	915	222	7,198
Some college -- attending	22	243	188	20	261	0	0	735
AA	0	208	602	757	1,726	215	172	3,679
BA+	0	209	1,623	1,860	6,461	1,870	360	12,383

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

Table 43 — Labor Force by Gender, Age, and Educational Attainment: Population: Fresno County

	0-15	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	250,228	56,371	80,305	72,779	66,419	230,455	96,759	103,454	956,769
Men	128,060	28,320	40,404	37,707	34,011	115,382	47,196	45,845	476,924
Did not earn HSD\GED	104,849	17,598	6,798	7,478	8,886	35,346	12,717	14,119	207,792
HSD\GED	0	4,906	12,721	10,580	10,490	27,169	8,880	7,948	82,694
Some college -- not attending	0	620	6,685	8,499	6,409	22,613	10,562	9,476	64,864
Some college -- attending	28	5,104	9,806	3,257	1,202	2,184	56	60	21,697
AA	0	92	2,317	3,029	2,134	7,624	3,498	3,560	22,254
BA+	0	0	2,077	4,864	4,890	20,446	11,483	10,681	54,441
NA	23,183	0	0	0	0	0	0	0	23,183
Women	122,168	28,051	39,901	35,072	32,407	115,074	49,563	57,609	479,845
Did not earn HSD\GED	99,303	17,379	5,298	5,600	7,007	31,289	12,438	17,459	195,773
HSD\GED	0	3,889	9,511	8,001	6,887	24,131	10,424	14,509	77,352
Some college -- not attending	0	472	7,490	7,704	5,759	22,495	10,836	12,091	66,847
Some college -- attending	33	6,228	10,806	3,065	1,896	1,768	305	140	24,241
AA	0	82	3,444	3,579	4,876	11,071	4,196	3,715	30,962
BA+	0	0	3,352	7,123	5,983	24,321	11,364	9,696	61,839
NA	22,832	0	0	0	0	0	0	0	22,832

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

Table 44 — Labor Force by Age, Gender, and Educational Attainment (Persons 16 and Over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	16,273	55,559	55,905	51,186	175,745	60,090	16,208	430,965
Men	8,847	29,312	31,567	28,283	95,707	31,199	9,153	234,067
Did not earn HSD\GED	3,280	4,245	5,596	6,972	28,174	8,009	1,822	58,099
HSD\GED	2,430	9,971	8,659	8,531	21,599	5,267	1,237	57,695
Some college -- not attending	488	5,663	7,835	5,534	18,328	6,658	1,861	46,367
Some college -- attending	2,590	5,895	2,263	892	1,477	37	43	13,197
AA	58	1,971	2,736	1,997	6,850	2,185	869	16,665
BA+	0	1,566	4,478	4,357	19,279	9,042	3,322	42,044
Women	7,426	26,247	24,339	22,903	80,038	28,891	7,055	196,898
Did not earn HSD\GED	2,542	2,166	2,493	3,609	15,765	5,244	1,192	33,011
HSD\GED	1,823	5,873	5,061	4,485	16,202	6,232	1,355	41,033
Some college -- not attending	210	5,956	5,805	4,502	17,196	6,394	1,648	41,711
Some college -- attending	2,810	6,869	2,004	1,324	1,210	129	37	14,383
AA	41	2,549	2,908	4,086	9,285	2,709	868	22,446
BA+	0	2,834	6,068	4,897	20,380	8,182	1,954	44,315

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

Table 45 — Employed Labor Force by Age, Gender, and Educational Attainment (Persons 16 and Over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	10,554	45,432	48,239	43,786	155,722	54,092	15,001	372,827
Men	5,613	24,030	27,602	24,499	85,405	28,089	8,629	203,866
Did not earn HSD\GED	1,741	3,256	4,611	5,812	24,683	6,780	1,750	48,633
HSD\GED	1,468	7,838	7,364	7,207	18,712	4,628	1,199	48,416
Some college -- not attending	373	4,759	7,150	4,979	16,318	5,825	1,646	41,051
Some college -- attending	1,973	5,221	1,971	619	1,239	37	43	11,104
AA	58	1,640	2,391	1,744	6,359	2,018	800	15,010
BA+	0	1,316	4,115	4,139	18,093	8,800	3,190	39,652
Women	4,941	21,403	20,637	19,287	70,318	26,003	6,372	168,961
Did not earn HSD\GED	1,358	1,151	1,903	2,492	12,554	4,185	1,028	24,672
HSD\GED	1,495	4,515	3,954	3,674	14,062	5,561	1,160	34,423
Some college -- not attending	109	4,872	4,794	3,819	14,860	5,948	1,496	35,899
Some college -- attending	1,961	6,412	1,658	1,016	792	98	37	11,973
AA	18	2,004	2,546	3,702	8,480	2,612	815	20,177
BA+	0	2,448	5,781	4,584	19,568	7,599	1,836	41,817

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

Table 46 — Full-Time Employed Labor Force by Age, Gender, and Educational Attainment (Persons 16 and Over) Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	1,036	16,526	28,308	30,092	110,368	37,791	7,986	232,106
Men	829	9,838	17,148	17,501	64,280	20,874	4,887	135,357
Did not earn HSD\GED	67	1,227	2,252	3,636	15,295	3,699	959	27,135
HSD\GED	357	4,101	4,961	5,187	14,087	3,280	787	32,761
Some college -- not attending	70	2,200	4,959	3,844	13,539	4,975	806	30,392
Some college -- attending	335	901	1,005	396	917	37	0	3,592
AA	0	676	1,388	1,164	5,235	1,593	410	10,466
BA+	0	734	2,582	3,274	15,207	7,290	1,925	31,012
Women	206	6,688	11,160	12,592	46,087	16,917	3,099	96,750
Did not earn HSD\GED	24	537	745	1,178	6,181	2,027	403	11,094
HSD\GED	99	1,827	1,645	2,376	9,317	4,059	557	19,880
Some college -- not attending	0	1,872	2,584	2,609	11,031	3,730	796	22,622
Some college -- attending	84	982	598	645	490	22	18	2,838
AA	0	708	1,544	2,331	5,377	1,714	386	12,060
BA+	0	762	4,044	3,453	13,692	5,364	939	28,255

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

Table 47 — Part-Time Employed Labor Force by Age, Gender, and Educational Attainment (Persons 16 and Over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	9,518	28,907	19,931	13,694	45,355	16,301	7,015	140,721
Men	4,784	14,192	10,455	6,998	21,124	7,215	3,742	68,510
Did not earn HSD\GED	1,674	2,029	2,359	2,176	9,388	3,081	792	21,499
HSD\GED	1,111	3,737	2,403	2,020	4,625	1,348	412	15,656
Some college -- not attending	303	2,559	2,192	1,135	2,779	850	841	10,658
Some college -- attending	1,638	4,320	966	223	322	0	43	7,512
AA	58	964	1,002	579	1,124	426	390	4,544
BA+	0	582	1,532	865	2,886	1,510	1,265	8,641
Women	4,734	14,715	9,477	6,696	24,230	9,086	3,273	72,211
Did not earn HSD\GED	1,334	614	1,159	1,315	6,373	2,158	625	13,578
HSD\GED	1,396	2,688	2,309	1,298	4,746	1,502	603	14,542
Some college -- not attending	109	3,001	2,210	1,211	3,829	2,218	700	13,277
Some college -- attending	1,877	5,430	1,059	371	302	76	19	9,135
AA	18	1,296	1,002	1,371	3,103	898	429	8,117
BA+	0	1,687	1,737	1,130	5,876	2,235	897	13,562

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

Table 48 — Unemployed Labor Force by Age, Gender, and Educational Attainment (Persons 16 and Over): Fresno County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	5,719	10,126	7,666	7,399	20,023	5,997	1,207	58,138
Men	3,234	5,282	3,964	3,784	10,302	3,110	524	30,200
Did not earn HSD\GED	1,540	989	985	1,161	3,491	1,229	72	9,466
HSD\GED	963	2,133	1,295	1,325	2,887	639	38	9,278
Some college -- not attending	115	904	685	555	2,010	833	214	5,316
Some college -- attending	616	674	291	273	238	0	0	2,093
AA	0	331	345	253	491	167	69	1,655
BA+	0	251	363	218	1,186	242	132	2,392
Women	2,485	4,844	3,702	3,615	9,721	2,888	683	27,937
Did not earn HSD\GED	1,184	1,015	589	1,117	3,211	1,059	164	8,339
HSD\GED	328	1,358	1,107	811	2,140	671	195	6,610
Some college -- not attending	101	1,083	1,011	682	2,336	446	152	5,812
Some college -- attending	849	457	347	308	417	31	0	2,410
AA	23	546	362	384	805	97	53	2,269
BA+	0	385	286	314	812	583	118	2,498

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

Table 49 — Population by Age, Citizen Status, and Educational Attainment: Fresno County

	0-15	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	250,228	56,371	80,305	72,779	66,419	230,455	96,759	103,4	956,769
Citizen	242,765	51,135	70,905	59,488	51,630	173,873	82,537	95,12	827,460
Did not earn HSD\GED	196,950	31,561	8,415	6,619	7,228	27,543	14,178	24,812	317,306
HSD\GED		8,009	19,748	15,269	14,006	41,691	17,463	21,843	138,029
Some college -- not attending		1,012	13,068	14,546	11,227	42,491	20,795	21,043	124,181
Some college -- attending	62	10,420	18,969	5,911	2,864	3,429	337	158	42,150
AA		134	5,469	6,075	6,669	17,839	7,485	7,218	50,887
BA+			5,236	11,068	9,637	40,881	22,279	20,053	109,154
NA	45,753								45,753
Not Citizen	7,463	5,236	9,400	13,291	14,789	56,582	14,221	8,326	129,309
Did not earn HSD\GED	7,202	3,416	3,681	6,459	8,666	39,092	10,977	6,766	86,258
HSD\GED		786	2,484	3,312	3,371	9,609	1,841	614	22,016
Some college -- not attending		81	1,108	1,657	941	2,617	603	523	7,530
Some college -- attending		912	1,642	410	234	523	24	42	3,788
AA		41	292	533	341	856	209	57	2,328
BA+			194	919	1,236	3,886	568	324	7,127
NA	262								262

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

Table 50 — Population By Age, Disability Status, and Educational Attainment: Fresno County

	0-15	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	250,228	56,371	80,305	72,779	66,419	230,455	96,759	103,454	956,769
No Reported Disability	245,890	52,919	75,230	67,582	60,324	201,545	75,767	58,225	837,482
Did not earn HSD\GED	199,847	32,396	10,766	11,382	13,699	55,571	18,281	14,225	356,169
HSD\GED	0	8,457	20,714	16,714	15,551	44,734	13,901	12,318	132,390
Some college -- not attending	0	1,042	13,443	15,532	11,237	39,688	16,313	12,677	109,932
Some college -- attending	28	10,849	19,568	6,156	2,680	3,585	164	139	43,170
AA	0	174	5,454	6,323	6,750	16,659	6,586	4,821	46,767
BA+	0	0	5,284	11,475	10,407	41,309	20,521	14,045	103,040
NA	46,015	0	0	0	0	0	0	0	46,015
At Least One Disability	4,338	3,452	5,075	5,197	6,095	28,910	20,992	45,229	119,288
Did not earn HSD\GED	4,304	2,581	1,330	1,696	2,194	11,064	6,874	17,353	47,396
HSD\GED	0	338	1,518	1,868	1,826	6,565	5,403	10,139	27,656
Some college -- not attending	0	50	732	672	930	5,420	5,085	8,890	21,778
Some college -- attending	33	484	1,044	165	418	367	197	61	2,768
AA	0	0	307	285	260	2,036	1,108	2,454	6,449
BA+	0	0	145	512	466	3,458	2,326	6,332	13,240
NA	0	0	0	0	0	0	0	0	0

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

Table 51 — Population By Age, Veteran Status, and Educational Attainment: Fresno County

	0-15	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	250,228	56,371	80,305	72,779	66,419	230,455	96,759	103,454	956,769
Not Veterans	0	41,905	79,766	71,495	64,929	222,065	88,618	83,232	652,010
Did not earn HSD\GED	0	20,630	12,064	13,033	15,788	66,501	24,579	28,694	181,290
HSD\GED	0	8,675	21,831	18,245	17,098	49,832	17,751	18,251	151,683
Some college -- not attending	0	1,092	14,102	15,881	11,751	42,696	18,944	15,952	120,418
Some college -- attending	0	11,333	20,580	5,870	2,957	3,435	361	139	44,675
AA	0	174	5,761	6,506	6,618	17,215	6,463	4,750	47,487
BA+	0	0	5,429	11,961	10,717	42,385	20,519	15,446	106,457
NA	0	0	0	0	0	0	0	0	0
Veterans	0	0	539	1,284	1,490	8,391	8,141	20,222	40,065
Did not earn HSD\GED	0	0	32	45	105	134	576	2,884	3,777
HSD\GED	0	0	401	336	279	1,467	1,553	4,206	8,243
Some college -- not attending	0	0	73	323	416	2,411	2,454	5,615	11,292
Some college -- attending	0	0	32	451	141	517	0	61	1,201
AA	0	0	0	102	392	1,480	1,231	2,525	5,729
BA+	0	0	0	27	156	2,382	2,328	4,931	9,823
NA	0	0	0	0	0	0	0	0	0
Ineligible (i.e. youth < 17)	250,228	14,466	0	0	0	0	0	0	264,694
Did not earn HSD\GED	204,152	14,346	0	0	0	0	0	0	218,498
HSD\GED	0	120	0	0	0	0	0	0	120
Some college -- not attending	0	0	0	0	0	0	0	0	0
Some college -- attending	62	0	0	0	0	0	0	0	62
AA	0	0	0	0	0	0	0	0	0
BA+	0	0	0	0	0	0	0	0	0
NA	46,015	0	0	0	0	0	0	0	46,015

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

Table 52 — Part-Time Employed Labor Force By Broad Occupation Categories, Educational Attainment and Management Status Fresno County

		Managers					
	Total	Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	140,721	10,909	1,523	1,748	2,389	883	956
11 Management Occupations	5,513	5,513	951	945	922	555	307
13 Business Operations Specialists	1,365	0	0	0	0	0	0
13 Financial Specialists	1,129	0	0	0	0	0	0
15 Computer and Mathematical Occupations	858	0	0	0	0	0	0
17 Architecture and Engineering Occupations	683	0	0	0	0	0	0
19 Life, Physical, and Social Science Occupations	624	39	0	0	0	0	0
21 Community and Social Science Occupations	12,024	198	0	0	0	0	0
27 Arts, Design, Entertainment, Sports, and Media Occupations	2,700	0	0	0	0	0	0
29 Healthcare Practitioners and Technical Occupations	5,374	637	0	0	0	0	0
31 Healthcare Support Occupations	4,010	0	0	0	0	0	0
33 Protective Service Occupations	1,756	38	0	0	0	0	0
35 Food Preparation and Serving Occupations	12,476	1,012	85	142	330	155	136
37 Building and Ground Cleaning and Maintenance Occupations	8,162	150	0	27	51	23	49
39 Personal Care and Service Occupations	9,996	97	0	0	0	78	0
41 Sales Occupations	16,771	2,093	186	470	537	61	438
43 Office and Administrative Support Occupations	16,837	401	0	44	267	11	0
45 Farming, Fishing, and Forestry Occupations	17,100	231	209	22	0	0	0
47 Construction Trades	5,380	258	85	42	105	0	26
47 Extraction Workers	296	0	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	2,109	0	0	0	0	0	0
51 Production Occupations	4,401	199	7	56	136	0	0
53 Transportation and Material Moving Occupations	11,131	43	0	0	43	0	0
55 Military Specific Occupations	28	0	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).

	Specialists					
	Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	53,083	9,441	11,073	8,541	4,680	5,984
11 Management Occupations	0	0	0	0	0	0
13 Business Operations Specialists	1,365	24	168	156	298	183
13 Financial Specialists	1,129	103	42	214	92	130
15 Computer and Mathematical Occupations	858	0	119	124	108	217
17 Architecture and Engineering Occupations	683	69	33	58	78	90
19 Life, Physical, and Social Science Occupations	585	0	17	0	92	76
21 Community and Social Science Occupations	9,568	293	292	738	893	1,187
27 Arts, Design, Entertainment, Sports, and Media Occupations	2,700	174	667	456	327	206
29 Healthcare Practitioners and Technical Occupations	4,737	0	299	472	186	1,743
31 Healthcare Support Occupations	0	0	0	0	0	0
33 Protective Service Occupations	401	111	0	88	13	121
35 Food Preparation and Serving Occupations	4,904	1,192	1,278	923	944	400
37 Building and Ground Cleaning and Maintenance Occupations	55	0	34	21	0	0
39 Personal Care and Service Occupations	2,107	135	685	694	137	281
41 Sales Occupations	1,448	18	168	565	56	67
43 Office and Administrative Support Occupations	0	0	0	0	0	0
45 Farming, Fishing, and Forestry Occupations	0	0	0	0	0	0
47 Construction Trades	5,122	2,122	1,770	527	147	210
47 Extraction Workers	296	55	22	52	35	88
49 Installation, Maintenance, and Repair Workers	1,836	609	415	592	88	78
51 Production Occupations	4,202	1,310	1,397	650	407	281
53 Transportation and Material Moving Occupations	11,089	3,227	3,671	2,212	781	626
55 Military Specific Occupations	0	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).

	Support					
	Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	76,729	24,112	17,377	13,006	11,084	5,722
11 Management Occupations	0	0	0	0	0	0
13 Business Operations Specialists	0	0	0	0	0	0
13 Financial Specialists	0	0	0	0	0	0
15 Computer and Mathematical Occupations	0	0	0	0	0	0
17 Architecture and Engineering Occupations	0	0	0	0	0	0
19 Life, Physical, and Social Science Occupations	0	0	0	0	0	0
21 Community and Social Science Occupations	2,258	195	305	768	268	464
27 Arts, Design, Entertainment, Sports, and Media Occupations	0	0	0	0	0	0
29 Healthcare Practitioners and Technical Occupations	0	0	0	0	0	0
31 Healthcare Support Occupations	4,010	284	1,191	915	252	806
33 Protective Service Occupations	1,317	61	433	394	210	39
35 Food Preparation and Serving Occupations	6,559	1,578	1,520	879	1,644	442
37 Building and Ground Cleaning and Maintenance Occupations	7,957	3,454	2,159	893	739	435
39 Personal Care and Service Occupations	7,792	2,361	1,875	1,390	683	819
41 Sales Occupations	13,230	1,578	3,723	2,769	3,105	979
43 Office and Administrative Support Occupations	16,435	1,350	3,824	4,342	3,493	1,692
45 Farming, Fishing, and Forestry Occupations	16,869	13,086	2,347	593	643	46
47 Construction Trades	0	0	0	0	0	0
47 Extraction Workers	0	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	274	165	0	62	46	0
51 Production Occupations	0	0	0	0	0	0
53 Transportation and Material Moving Occupations	0	0	0	0	0	0
55 Military Specific Occupations	28	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).

Table 53 — Unemployed Labor Force By Broad Occupation Categories, Educational Attainment and Management Status (Excluding Long-Term Unemployed)

	Total	Managers					
		Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	45,925	4,150	597	703	1,574	138	457
11 Management Occupations	1,726	1,726	251	308	793	8	140
13 Business Operations Specialists	568	0	0	0	0	0	0
13 Financial Specialists	696	0	0	0	0	0	0
15 Computer and Mathematical Occupations	321	0	0	0	0	0	0
17 Architecture and Engineering Occupations	143	0	0	0	0	0	0
19 Life, Physical, and Social Science Occupations	202	0	0	0	0	0	0
21 Community and Social Science Occupations	1,884	21	0	0	0	0	0
27 Arts, Design, Entertainment, Sports, and Media Occupations	708	0	0	0	0	0	0
29 Healthcare Practitioners and Technical Occupations	368	0	0	0	0	0	0
31 Healthcare Support Occupations	1,186	0	0	0	0	0	0
33 Protective Service Occupations	549	0	0	0	0	0	0
35 Food Preparation and Serving Occupations	2,839	469	19	62	256	0	108
37 Building and Ground Cleaning and Maintenance Occupations	1,891	85	72	13	0	0	0
39 Personal Care and Service Occupations	2,614	0	0	0	0	0	0
41 Sales Occupations	4,236	604	68	115	132	0	51
43 Office and Administrative Support Occupations	6,199	333	0	57	170	11	95
45 Farming, Fishing, and Forestry Occupations	7,175	216	121	0	51	0	45
47 Construction Trades	3,348	256	0	78	39	119	19
47 Extraction Workers	266	0	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	1,072	125	0	44	81	0	0
51 Production Occupations	2,836	182	19	24	53	0	0
53 Transportation and Material Moving Occupations	5,036	132	48	0	0	0	0
55 Military Specific Occupations	64	0	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).

	Specialists					
	Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	17,552	4,753	5,401	3,202	974	833
11 Management Occupations	0	0	0	0	0	0
13 Business Operations Specialists	568	69	204	99	29	0
13 Financial Specialists	696	25	41	382	0	62
15 Computer and Mathematical Occupations	321	0	0	0	138	0
17 Architecture and Engineering Occupations	143	28	20	48	0	7
19 Life, Physical, and Social Science Occupations	202	19	13	164	0	0
21 Community and Social Science Occupations	1,304	0	0	58	81	319
27 Arts, Design, Entertainment, Sports, and Media Occupations	708	64	139	142	75	71
29 Healthcare Practitioners and Technical Occupations	368	25	34	4	0	128
31 Healthcare Support Occupations	0	0	0	0	0	0
33 Protective Service Occupations	173	0	64	43	52	0
35 Food Preparation and Serving Occupations	857	118	361	277	22	23
37 Building and Ground Cleaning and Maintenance Occupations	31	0	16	15	0	0
39 Personal Care and Service Occupations	275	91	133	30	21	0
41 Sales Occupations	384	57	83	34	122	19
43 Office and Administrative Support Occupations	35	0	13	22	0	0
45 Farming, Fishing, and Forestry Occupations	37	0	37	0	0	0
47 Construction Trades	3,092	1,198	1,067	683	58	50
47 Extraction Workers	266	17	196	53	0	0
49 Installation, Maintenance, and Repair Workers	535	350	116	31	0	14
51 Production Occupations	2,653	928	796	471	180	47
53 Transportation and Material Moving Occupations	4,904	1,763	2,069	647	197	94
55 Military Specific Occupations	0	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).

	Support					
	Sub-Total	<HS	HS	Some Coll OUT	Some Coll IN	AA
Broad Occupational Categories	24,223	7,691	6,397	5,056	1,882	1,783
11 Management Occupations	0	0	0	0	0	0
13 Business Operations Specialists	0	0	0	0	0	0
13 Financial Specialists	0	0	0	0	0	0
15 Computer and Mathematical Occupations	0	0	0	0	0	0
17 Architecture and Engineering Occupations	0	0	0	0	0	0
19 Life, Physical, and Social Science Occupations	0	0	0	0	0	0
21 Community and Social Science Occupations	559	78	24	165	51	127
27 Arts, Design, Entertainment, Sports, and Media Occupations	0	0	0	0	0	0
29 Healthcare Practitioners and Technical Occupations	0	0	0	0	0	0
31 Healthcare Support Occupations	1,186	152	370	413	87	143
33 Protective Service Occupations	376	43	58	142	48	61
35 Food Preparation and Serving Occupations	1,512	412	546	286	96	172
37 Building and Ground Cleaning and Maintenance Occupations	1,775	765	659	277	25	30
39 Personal Care and Service Occupations	2,338	306	1,074	450	169	232
41 Sales Occupations	3,249	541	670	669	479	426
43 Office and Administrative Support Occupations	5,831	354	1,520	2,230	644	465
45 Farming, Fishing, and Forestry Occupations	6,922	5,041	1,275	177	282	98
47 Construction Trades	0	0	0	0	0	0
47 Extraction Workers	0	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	412	0	136	247	0	29
51 Production Occupations	0	0	0	0	0	0
53 Transportation and Material Moving Occupations	0	0	0	0	0	0
55 Military Specific Occupations	64	0	64	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).

Table 54 — Long-Term Unemployed Labor Force By Educational Attainment

	Total	<HS	HS	Some Coll OUT	Some Coll IN	AA	BA or up
Long-Term Unemployed persons	12,213	4,764	3,387	1,295	1,509	851	407

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

Table 55 — Unemployed Labor Force-to-Job Openings Skills Match

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
		14,467		42,022	21,439	12,292	10,878	9,249	2,721	2,939	3,944
11-1021	General and Operations Managers	166	Bachelor's	70	0	0	0	47	0	23	0
11-10XX	Chief executives and legislators	17	Bachelor's	240	38	0	0	170	0	31	38
11-2020	Marketing and Sales Managers	41	Bachelor's	148	0	0	116	32	0	0	0
11-2031	Public Relations Managers	6	Bachelor's	0	0	0	0	0	0	0	0
11-3011	Administrative Services Managers	20	Bachelor's	0	0	0	0	0	0	0	0
11-3021	Computer and Information Systems Managers	9	Bachelor's	57	0	0	0	0	0	57	0
11-3031	Financial Managers	25	Bachelor's	103	0	0	0	103	0	0	0
11-3051	Industrial Production Managers	8	Bachelor's	31	0	0	0	31	0	0	0
11-3071	Transportation, Storage, and Distribution Managers	11	HS Dpl \ GED	31	31	0	31	0	0	0	0
11-3121	Human Resources Managers	10	Bachelor's	0	0	0	0	0	0	0	0
11-9013	Farmers, Ranchers, and Other Agricultural Managers	25	HS Dpl \ GED	203	0	166	0	0	8	29	0
11-9021	Constructions Managers	15	Bachelor's	118	23	34	0	61	0	0	23

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
11-9030	Education Administrators	56	Bachelor's	134	134	0	0	0	0	0	134
11-9041	Architectural and Engineering Managers	7	Bachelor's	0	0	0	0	0	0	0	0
11-9051	Food Service Managers	16	HS Dpl \ GED	98	48	50	48	0	0	0	0
11-9111	Medical and Health Services Managers	35	Bachelor's	0	0	0	0	0	0	0	0
11-9141	Property, Real Estate, and Community Association Managers	12	HS Dpl \ GED	165	165	0	22	143	0	0	0
11-9151	Social and Community Service Managers	29	Bachelor's	0	0	0	0	0	0	0	0
11-9XXX	Miscellaneous managers including postmansters and mail superintendents	17	AA	293	0	0	56	205	0	0	31
13-1022	Wholesale and Retail Buyers, Except Farm Products	10	HS Dpl \ GED	10	10	0	0	10	0	0	0
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	12	HS Dpl \ GED	109	109	0	109	0	0	0	0
13-1030	Claims Adjusters, Appraisers, Examiners, and Investigators	18	HS Dpl \ GED	0	0	0	0	0	0	0	0
13-1041	Compliance Officers, Except Ag., Construction, Health and SAfety, and Transport.	14	Bachelor's	34	34	0	0	0	0	0	34
13-1051	Cost Estimators	39	Bachelor's	0	0	0	0	0	0	0	0
13-1070	Human Resources, Training, and Labor Relations Specialists	33	Bachelor's	39	0	0	0	39	0	0	0
13-1081	Logisticians	5	Bachelor's	29	0	0	0	0	29	0	0
13-1111	Management Analysts	22	Bachelor's	48	48	0	0	0	0	0	48
13-1121	Meeting and Convention Planners	7	Bachelor's	47	19	0	0	28	0	0	19

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
13-1131	Fundraisers	7	Bachelor's	22	0	0	0	22	0	0	0
13-1141	Compensation, Benefits, and Job Analysis Specialists	7	Bachelor's	0	0	0	0	0	0	0	0
13-1151	Training and Development Specialists	14	Bachelor's	95	0	0	95	0	0	0	0
13-1161	Market Research Analysts and Marketing Specialists	26	Bachelor's	42	42	0	0	0	0	0	42
13-1199	Business Operations Specialists, All Other	43	HS Dpl \ GED	93	0	69	0	0	0	0	23
13-2011	Accountants and Auditors	91	Bachelor's	160	135	25	0	0	0	0	135
13-2031	Budget Analysts	6	Bachelor's	0	0	0	0	0	0	0	0
13-2051	Financial Analysts	8	Bachelor's	0	0	0	0	0	0	0	0
13-2070	Credit Counselors and Loan Officers	8	Bachelor's	27	0	0	0	0	0	27	0
13-2081	Tax Examiners and Collectors, and Revenue Agents	60	Bachelor's	432	0	0	41	369	0	22	0
15-1121	Computer Programmers	22	Bachelor's	36	36	0	0	0	0	0	36
15-1131	Computer Programmers	9	Bachelor's	0	0	0	0	0	0	0	0
15-113X	Software Developers, Applications and Systems Software	22	Bachelor's	84	84	0	0	0	0	0	84
15-1141	Database Administrators	5	Bachelor's	0	0	0	0	0	0	0	0
15-1142	Network and Computer Systems Administrators	16	Bachelor's	0	0	0	0	0	0	0	0
15-1143	Computer Network Architects	6	Bachelor's	0	0	0	0	0	0	0	0
15-1150	Computer Support Specialists	43	Some college, no degree	138	138	0	0	0	138	0	0
15-1199	Computer Occupations, All Other	6	Bachelor's	0	0	0	0	0	0	0	0
17-1010	Architects, Except Naval	7	Bachelor's	11	11	0	0	0	0	0	11
17-2051	Civil Engineers	35	Bachelor's	37	30	0	0	0	0	7	30

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
17-2070	Electrical and Electronics Engineers	12	Bachelor's	0	0	0	0	0	0	0	0
17-20XX	Biomedical and agricultural engineers	6	Bachelor's	0	0	0	0	0	0	0	0
17-2110	Industrial Engineers, including Health and Safety	6	Bachelor's	21	0	0	0	21	0	0	0
17-2141	Mechanical Engineers	8	Bachelor's	0	0	0	0	0	0	0	0
19-10XX	General and Operations Managers	7	Master's	0	0	0	0	0	0	0	0
19-2030	Chemists and Materials Scientists	7	Bachelor's	0	0	0	0	0	0	0	0
19-2040	Environmental Scientists and Geoscientists	12	Bachelor's	0	0	0	0	0	0	0	0
19-3030	Market and Survey Researchers	26	Doctoral or professional degree	0	0	0	0	0	0	0	0
19-3051	Urban and Regional Planners	10	Master's	0	0	0	0	0	0	0	0
19-4011	Agricultural and Food Science Technicians	6	AA	102	0	0	0	102	0	0	0
19-4021	Biological Technicians	6	Bachelor's	40	0	0	0	40	0	0	0
19-4031	Chemical Technicians	8	AA	19	0	19	0	0	0	0	0
19-40YY	Miscellaneous Life, Physical, and Social Science Technicians, Including Social Science Research Assistants	12	AA	36	0	0	13	23	0	0	0
21-1010	Counselors	89	HS Dpl \ GED	93	0	0	0	0	0	0	93
21-1020	Social Workers	100	Bachelor's	20	20	0	0	0	0	0	20
21-1092	Probation Officers and Correctional Treatment Specialists	10	Bachelor's	0	0	0	0	0	0	0	0
21-1093	Social and Human Service Assistants	85	HS Dpl \ GED	0	0	0	0	0	0	0	0
21-109X	Miscellaneous Community and Social Service Specialists	32	Bachelor's	31	31	0	0	0	0	0	31

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
21-2011	Clergy	23	Bachelor's	0	0	0	0	0	0	0	0
21-2021	Directors, Religious Activities and Education	18	Bachelor's	0	0	0	0	0	0	0	0
21-2099	Religious Workers, All Other	6	Bachelor's	0	0	0	0	0	0	0	0
23-10XX	Lawyers, and judges, magistrates, and other judicial workers	40	Doctoral or professional degree	0	0	0	0	0	0	0	0
23-2011	Paralegals and Legal Assistants	25	AA	208	90	0	0	25	0	90	92
25-1000	Postsecondary Teachers	120	Doctoral or professional degree	311	117	0	0	0	0	194	117
25-2010	Preschool and Kindergarten Teachers	63	AA	15	0	0	0	0	0	0	15
25-2020	Elementary and Middle School Teachers	219	Bachelor's	395	337	0	0	33	25	0	337
25-2030	Secondary School Teachers	137	Bachelor's	61	0	0	0	24	36	0	0
25-2050	Elementary and Middle School Teachers	27	Bachelor's	29	29	0	0	0	0	0	29
25-3000	Other Teachers and Instructors	141	Bachelor's	305	205	0	0	0	20	80	205
25-4021	Librarians	7	Master's	44	0	0	0	0	0	44	0
25-4031	Library Technicians	28	Postsecondary non-degree award	0	0	0	0	0	0	0	0
25-9041	Teacher Assistants	145	Some college, no degree	249	51	78	24	38	51	37	21
25-90XX	Other Education, Training, and Library Workers	19	Bachelor's	0	0	0	0	0	0	0	0
27-1020	Designers	22	Bachelor's	65	0	22	0	0	0	43	0
27-2012	Producers and Directors	10	Bachelor's	0	0	0	0	0	0	0	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
27-2020	Athletes, Coaches, Umpires, and Related Workers	21	HS Dpl \ GED	86	40	0	40	0	47	0	0
27-2040	Musicians, Singers, and Related Workers	16	Bachelor's	19	0	0	0	19	0	0	0
27-3031	Public Relations Specialists	10	Bachelor's	86	59	0	0	27	0	0	59
27-3090	Miscellaneous Media and Communication Workers	13	Bachelor's	96	0	0	0	96	0	0	0
27-40XX	Broadcast and Sound Engineering Techs and Radio Operators, and media and commequipment workers, all other	11	Postsecondary non-degree award	0	0	0	0	0	0	0	0
29-1020	Dentists	13	Doctoral or professional degree	0	0	0	0	0	0	0	0
29-1031	Dieticians and Nutritionists	8	Bachelor's	0	0	0	0	0	0	0	0
29-1041	Optometrists	8	Doctoral or professional degree	0	0	0	0	0	0	0	0
29-1051	Pharmacists	33	Doctoral or professional degree	0	0	0	0	0	0	0	0
29-1060	Physicians and Surgeons	63	Doctoral or professional degree	0	0	0	0	0	0	0	0
29-1071	Physician Assistants	15	Master's	0	0	0	0	0	0	0	0
29-1122	Occupational Therapists	9	Master's	0	0	0	0	0	0	0	0
29-1123	Physical Therapists	19	Doctoral or professional degree	0	0	0	0	0	0	0	0
29-1126	Respiratory Therapists	9	AA	0	0	0	0	0	0	0	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
29-1127	SpeechLanguage Pathologists	17	Master's	0	0	0	0	0	0	0	0
29-1131	Veterinarians	6	Doctoral or professional degree	0	0	0	0	0	0	0	0
29-1141	Nurse Practitioners, and Nurse Midwives	260	AA	59	20	0	0	0	0	20	40
29-11XX	Nurse Practitioners, and Nurse Midwives	27	Master's	0	0	0	0	0	0	0	0
29-2010	Clinical Laboratory Technologists and Technicians	18	AA	19	0	0	0	0	0	0	19
29-2021	Dental Hygienists	16	AA	0	0	0	0	0	0	0	0
29-2030	Diagnostic Related Technologists and Technicians	27	AA	93	93	0	0	0	0	93	0
29-2041	Emergency Medical Technicians and Paramedics	26	Postsecondary non-degree award	0	0	0	0	0	0	0	0
29-2050	Health Diagnosing and Treating Practitioner Support Technicians	61	AA	4	0	0	0	4	0	0	0
29-2061	Licensed Practical and Licensed Vocational Nurses	72	Postsecondary non-degree award	103	0	25	34	0	0	15	30
29-2071	Medical Records and Health Information Technicians	22	Postsecondary non-degree award	0	0	0	0	0	0	0	0
29-2081	Opticians, Dispensing	15	HS Dpl \ GED	0	0	0	0	0	0	0	0
29-2090	Miscellaneous Health Technologists and Technicians	13	Master's	67	67	0	0	0	0	0	67
29-9000	Other Healthcare Practitioners and Technical Occupations	13	Bachelor's	23	23	0	0	0	0	0	23
31-1010	Nursing, Psychiatric, and Home	279	< HS	749	338	128	210	266	57	88	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
	Health Aides										
31-2020	Physical Therapist Assistants and Aides	6	AA	30	0	0	0	0	30	0	0
31-9091	Dental Assistants	30	Postsecondary non-degree award	26	0	0	0	0	0	26	0
31-9092	Medical Assistants	118	Postsecondary non-degree award	292	130	24	110	130	0	28	0
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	6	HS Dpl \ GED	22	0	0	0	0	0	0	22
31-9097	Phlebotomists	17	Postsecondary non-degree award	0	0	0	0	0	0	0	0
31-909X	Medical Assistants and Other Healthcare Support Occupations, except dental assistants	10	HS Dpl \ GED	18	18	0	0	18	0	0	0
33-1011	First-Line Supervisors of Correctional Officers	8	HS Dpl \ GED	0	0	0	0	0	0	0	0
33-2011	Firefighters	16	Postsecondary non-degree award	33	0	0	33	0	0	0	0
33-3010	Bailiffs, Correctional Officers, and Jailers	61	HS Dpl \ GED	0	0	0	0	0	0	0	0
33-3021	Detectives and Criminal Investigators	7	HS Dpl \ GED	0	0	0	0	0	0	0	0
33-3050	Police Officers	53	HS Dpl \ GED	58	43	0	0	43	0	0	15
33-9030	Security Guards and Gaming Surveillance Officers	96	HS Dpl \ GED	376	200	43	58	142	48	61	23
33-9091	Crossing Guards	26	HS Dpl \ GED	0	0	0	0	0	0	0	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
33-909X	Lifeguards and Other Protective Service Workers	32	HS Dpl \ GED	82	31	0	31	0	52	0	0
35-1011	Chefs and Head Cooks	7	HS Dpl \ GED	155	74	0	42	32	0	81	0
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	104	HS Dpl \ GED	315	244	19	20	224	0	28	23
35-2010	Cooks	204	< HS	489	320	75	245	124	22	23	0
35-2021	Food Preparation Workers	101	< HS	194	111	43	68	27	0	0	57
35-3011	Bartenders	59	< HS	174	48	0	48	126	0	0	0
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	546	< HS	61	0	0	0	0	0	61	0
35-3022	Counter Attendant, Cafeteria, Food Concession, and Coffee Shop	64	< HS	57	57	41	16	0	0	0	0
35-3031	Waiters and Waitresses	306	< HS	713	378	53	326	237	66	31	0
35-3041	Food Servers, Nonrestaurant	34	< HS	143	64	64	0	0	0	79	0
35-9021	Dishwashers	93	< HS	34	4	0	4	0	30	0	0
35-9031	Host and Hostesses, Restaurant, Lounge, and Coffee Shop	64	< HS	290	285	254	30	6	0	0	0
35-90XX	Miscellaneous food preparation and serving related workers incl. dining room\cafeteria attendants, bartender helpers	114	< HS	213	170	0	170	43	0	0	0
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	18	HS Dpl \ GED	72	0	72	0	0	0	0	0
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	177	< HS	13	13	0	13	0	0	0	0
37-2012	Maids and Housekeeping Cleaners	62	< HS	536	455	369	86	81	0	0	0
37-2021	Pest Control Workers	15	HS Dpl \ GED	31	31	0	16	15	0	0	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
37-3010	Grounds Maintenance Workers	82	< HS	330	294	192	102	37	0	0	0
39-1021	First-Line Supervisors of Personal Service Workers	14	HS Dpl \ GED	0	0	0	0	0	0	0	0
39-2021	Nonfarm Animal Caretakers	9	< HS	224	224	91	133	0	0	0	0
39-3010	Gaming Services Workers	25	HS Dpl \ GED	0	0	0	0	0	0	0	0
39-3031	Ushers, Lobby Attendants, and Ticket Takers	16	< HS	0	0	0	0	0	0	0	0
39-3090	Miscellaneous Entertainment Attendants and Related Workers	37	< HS	0	0	0	0	0	0	0	0
39-5012	Hairdressers, Hairstylists, and Cosmetologists	13	Postsecondary non-degree award	30	30	0	0	30	0	0	0
39-7010	Tour and Travel Guides	5	HS Dpl \ GED	0	0	0	0	0	0	0	0
39-9011	Childcare Workers	90	HS Dpl \ GED	750	452	21	310	142	129	101	47
39-9021	Personal Care Aides	354	< HS	1,551	1,013	286	727	308	40	131	60
39-9030	Recreation and Fitness Workers	28	HS Dpl \ GED	0	0	0	0	0	0	0	0
39-9041	Residential Advisors	13	HS Dpl \ GED	0	0	0	0	0	0	0	0
41-1011	First-Line Supervisors of Retail Sales Workers	120	HS Dpl \ GED	588	247	52	115	132	0	51	238
41-1012	First-Line Supervisors of Non-Retail Sales	17	HS Dpl \ GED	16	0	16	0	0	0	0	0
41-2010	Cashiers	458	< HS	1,571	708	217	491	369	159	165	169
41-2021	Counter and Rental Clerks	72	< HS	44	0	0	0	0	0	0	44
41-2022	Parts Salespersons	32	< HS	42	42	17	26	0	0	0	0
41-2031	Retail Salespersons	637	< HS	877	217	157	60	173	295	56	135
41-3011	Advertising Sales Agents	13	HS Dpl \ GED	90	90	0	56	34	0	0	0
41-3021	Insurance Sales Agents	65	HS Dpl \ GED	77	27	0	27	0	31	19	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
41-3031	Securities, Commodities, and Financial Services Sales Agents	14	Bachelor's	40	40	0	0	0	0	0	40
41-3099	Sales Representatives, Services, All Other	89	HS Dpl \ GED	0	0	0	0	0	0	0	0
41-4010	Sales Representatives, Wholesale and Manufacturing	130	Bachelor's	267	69	0	0	78	24	95	69
41-9010	Models, Demonstrators, and Product Promoters	22	HS Dpl \ GED	57	0	57	0	0	0	0	0
41-9020	Real Estate Brokers and Sales Agents	6	HS Dpl \ GED	121	0	0	0	0	91	0	29
41-9041	Telemarketers	30	< HS	223	65	0	65	49	0	109	0
41-9099	Sales and Related Workers, All Other	11	HS Dpl \ GED	15	0	0	0	0	0	0	15
43-1011	First-Line Supervisors of Office and Administrative Support Workers	143	HS Dpl \ GED	333	227	0	57	170	11	95	0
43-2011	Switchboard Operators, Including Answering Service	6	HS Dpl \ GED	29	29	0	29	0	0	0	0
43-3011	Bill and Account Collectors	35	HS Dpl \ GED	0	0	0	0	0	0	0	0
43-3021	Billing and Posting Clerks	49	HS Dpl \ GED	30	30	0	0	30	0	0	0
43-3031	Bookkeeping, Accounting, and Auditing Clerks	93	HS Dpl \ GED	167	154	0	0	154	0	0	13
43-3051	Payroll and Timekeeping Clerks	21	HS Dpl \ GED	23	0	0	0	0	0	0	23
43-3061	Procurement Clerks	8	HS Dpl \ GED	0	0	0	0	0	0	0	0
43-3071	Tellers	40	HS Dpl \ GED	31	0	0	0	0	19	12	0
43-4031	Court, Municipal, and License Clerks	12	HS Dpl \ GED	0	0	0	0	0	0	0	0
43-4051	Customer Service Representatives	265	HS Dpl \ GED	1,053	626	79	233	393	228	82	38
43-4061	Eligibility Interviewers, Government Programs	52	HS Dpl \ GED	39	20	0	20	0	0	18	0
43-4071	File Clerks	19	HS Dpl \ GED	204	168	0	57	111	0	23	13
43-4081	Hotel, Motel, and Resort Desk Clerks	19	HS Dpl \ GED	26	26	0	26	0	0	0	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
43-4111	Interviewers, Except Eligibility and Loan	14	HS Dpl \ GED	198	198	0	50	148	0	0	0
43-4121	Library Assistants, Clerical	14	HS Dpl \ GED	0	0	0	0	0	0	0	0
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	12	HS Dpl \ GED	0	0	0	0	0	0	0	0
43-4171	Receptionists and Information Clerks	108	HS Dpl \ GED	449	321	55	161	160	0	48	25
43-4199	Information and Record Clerks, All Other	21	HS Dpl \ GED	20	20	0	20	0	0	0	0
43-4XXX	Correspondent clerks and order clerks	15	HS Dpl \ GED	32	32	0	0	32	0	0	0
43-5011	Cargo and Freight Agents	8	HS Dpl \ GED	0	0	0	0	0	0	0	0
43-5030	Dispatchers	43	HS Dpl \ GED	72	0	0	0	0	0	0	72
43-5052	Postal Service Mail Carriers	21	HS Dpl \ GED	28	28	0	0	28	0	0	0
43-5061	Production, Planning, and Expediting Clerks	25	HS Dpl \ GED	21	21	0	0	21	0	0	0
43-5071	Shipping, Receiving, and Traffic Clerks	56	HS Dpl \ GED	117	90	27	63	27	0	0	0
43-5081	Stock Clerks and Order Fillers	216	< HS	978	441	93	348	388	148	0	0
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	19	HS Dpl \ GED	22	22	0	0	22	0	0	0
43-6010	Secretaries and Administrative Assistants	264	HS Dpl \ GED	584	340	22	152	188	45	110	68
43-9021	Data Entry Keyers	9	HS Dpl \ GED	387	184	0	66	118	62	20	121
43-9041	Insurance Claims and Policy Processing Clerks	31	HS Dpl \ GED	104	104	0	0	104	0	0	0
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	14	HS Dpl \ GED	27	27	0	27	0	0	0	0
43-9061	Office Clerks, General	245	HS Dpl \ GED	420	159	18	10	149	47	88	107
43-9XXX	Miscellaneous office and	67	HS Dpl \ GED	151	29	39	0	29	0	0	82

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
	administrative support workers including desktop publishers										
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	21	HS Dpl \ GED	216	51	121	0	51	0	45	0
45-2011	Agricultural Inspectors	9	Bachelor's	37	0	0	37	0	0	0	0
45-2041	Graders and Sorters, Agricultural Products	42	< HS	919	857	680	177	16	0	46	0
45-20XX	Miscellaneous agricultural workers including animal breeders	1,184	HS Dpl \ GED	5,920	1,259	4,277	1,098	160	282	52	50
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	35	HS Dpl \ GED	256	118	0	78	39	119	19	0
47-2031	Carpenters	47	HS Dpl \ GED	538	338	200	236	101	0	0	0
47-2040	Carpet, Floor, and Tile Installers and Finishers	8	< HS	264	236	201	36	0	28	0	0
47-2050	Cement Masons, Concrete Finishers, and Terrazzo Workers	28	< HS	20	0	0	0	20	0	0	0
47-2061	Construction Laborers	114	< HS	961	751	279	472	94	30	50	37
47-207X	Construction equipment operators except paving, surfacing, and tamping equipment operators	36	HS Dpl \ GED	96	96	0	0	96	0	0	0
47-2080	Drywall Installers, Ceiling Tile Installers, and Tapers	17	< HS	44	44	28	16	0	0	0	0
47-2111	Electricians	54	HS Dpl \ GED	157	105	52	66	39	0	0	0
47-2140	Painters and Paperhangers	9	< HS	412	218	131	87	194	0	0	0
47-2150	Pipelayers, Plumbers, Pipefitters, and Steamfitters	29	< HS	257	199	169	30	58	0	0	0
47-2181	Roofers	17	< HS	98	98	98	0	0	0	0	0
47-2211	Sheet Metal Workers	9	HS Dpl \ GED	63	63	0	16	47	0	0	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
47-2221	Structural Iron and Steel Workers	6	HS Dpl \ GED	0	0	0	0	0	0	0	0
47-3010	Helpers, Construction Trades	6	< HS	29	29	13	16	0	0	0	0
47-4011	Construction and Building Inspectors	6	HS Dpl \ GED	0	0	0	0	0	0	0	0
47-4041	Hazardous Materials Removal Workers	7	HS Dpl \ GED	0	0	0	0	0	0	0	0
47-4051	Highway Maintenance Workers	6	HS Dpl \ GED	40	11	29	11	0	0	0	0
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	41	HS Dpl \ GED	125	125	0	44	81	0	0	0
49-2011	Computer, Automated Teller, and Office Machine Repairers	8	Some college, no degree	95	0	0	0	66	0	29	0
49-2020	Radio and Telecommunications Equipment Installers and Repairers	35	AA	221	0	0	40	181	0	0	0
49-209X	Electrical and electronics repairers, transportation equipment, and industrial and utility	6	Postsecondary non-degree award	0	0	0	0	0	0	0	0
49-3011	Aircraft Mechanics and Service Technicians	16	Postsecondary non-degree award	0	0	0	0	0	0	0	0
49-3021	Automotive Body and Related Repairers	15	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-3023	Automotive Service Technicians and Mechanics	74	HS Dpl \ GED	259	11	233	11	0	0	14	0
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	29	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-3040	Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics	31	HS Dpl \ GED	59	0	59	0	0	0	0	0
49-3090	Miscellaneous Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	22	HS Dpl \ GED	19	19	0	19	0	0	0	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
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	37	Postsecondary non-degree award	54	31	0	22	31	0	0	0
49-9031	Home Appliance Repairers	12	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-9043	Maintenance Workers, Machinery	8	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-904X	Industrial and Refractory Machinery Mechanic	34	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-9051	Electrical Power-Line Installers and Repairers	31	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-9052	Telecommunications Line Installers and Repairers	19	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-9060	Precision Instrument and Equipment Repairers	5	AA	0	0	0	0	0	0	0	0
49-9071	Maintenance and Repair Workers, General	94	HS Dpl \ GED	84	27	58	27	0	0	0	0
49-9098	Helpers--Installation, Maintenance, and Repair Workers	15	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-90XX	Miscellaneous Installation, Maintenance, and Repair Workers, Including Wind Turbine Service Technicians	8	Some college, no degree	197	0	17	127	53	0	0	0
51-1011	First-Line Supervisors of Production and Operating Workers	23	Postsecondary non-degree award	182	53	19	24	53	0	0	86
51-2041	Structural Metal Fabricators and Fitters	12	HS Dpl \ GED	0	0	0	0	0	0	0	0
51-2090	Miscellaneous Assemblers and Fabricators	55	HS Dpl \ GED	265	223	42	87	135	0	0	0
51-3011	Bakers	19	< HS	79	23	23	0	56	0	0	0
51-3020	Butchers and Other Meat, Poultry,	102	< HS	100	100	25	75	0	0	0	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
	and Fish Processing Workers										
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	6	< HS	0	0	0	0	0	0	0	0
51-3092	Food Batchmakers	16	HS Dpl \ GED	0	0	0	0	0	0	0	0
51-3099	Food Processing Workers, All Other	9	< HS	16	16	16	0	0	0	0	0
51-4041	Machinists	19	HS Dpl \ GED	7	7	0	7	0	0	0	0
51-4120	Welding, Soldering, and Brazing Workers	22	HS Dpl \ GED	43	0	43	0	0	0	0	0
51-4XXX	Misc. metal workers\plastic workers incl. milling and planing mach. setters, and multiple mach. tool setters, and lay-out workers	6	HS Dpl \ GED	92	68	24	68	0	0	0	0
51-6011	Laundry and Dry-Cleaning Workers	24	< HS	17	17	0	17	0	0	0	0
51-8010	Power Plant Operators, Distributors, and Dispatchers	7	HS Dpl \ GED	0	0	0	0	0	0	0	0
51-8031	Water and Wastewater Treatment Plant and System Operators	12	HS Dpl \ GED	39	0	0	0	0	0	0	39
51-9020	Crushing, Grinding, Polishing, Mixing, and Blending Workers	11	HS Dpl \ GED	0	0	0	0	0	0	0	0
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	39	HS Dpl \ GED	444	267	45	129	138	55	25	52
51-9111	Packaging and Filling Machine Operators and Tenders	47	HS Dpl \ GED	388	148	188	78	70	22	0	30
51-9198	Helpers--Production Workers	35	< HS	0	0	0	0	0	0	0	0
51-91XX	Other production workers including semiconductor processors and cooling and freezing equipment operators	26	AA	466	22	299	91	54	0	22	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
53-1000	Supervisors of Transportation and Material Moving Workers	50	HS Dpl \ GED	132	0	48	0	0	0	0	85
53-2020	Air Traffic Controllers and Airfield Operations Specialists	6	AA	0	0	0	0	0	0	0	0
53-3020	Bus Drivers	49	HS Dpl \ GED	19	19	0	0	19	0	0	0
53-3030	Driver/Sales Workers and Truck Drivers	331	HS Dpl \ GED	1,176	703	300	565	137	68	49	55
53-3041	Taxi Drivers and Chauffeurs	19	< HS	20	0	0	0	20	0	0	0
53-3099	Motor Vehicle Operators, All Other	7	HS Dpl \ GED	0	0	0	0	0	0	0	0
53-6021	Parking Lot Attendants	6	< HS	0	0	0	0	0	0	0	0
53-6031	Service Station Attendants	20	< HS	58	58	0	58	0	0	0	0
53-7051	Industrial Truck and Tractor Operators	58	< HS	635	462	247	215	174	0	0	0
53-7061	Cleaners of Vehicles and Equipment	81	< HS	113	113	0	113	0	0	0	0
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	351	< HS	1,062	784	240	544	136	19	45	78
53-7063	Machine Feeders and Offbearers	6	< HS	0	0	0	0	0	0	0	0
53-7064	Packers and Packagers, Hand	156	< HS	1,577	1,387	941	446	81	109	0	0
53-7081	Refuse and Recyclable Material Collectors	13	< HS	137	137	35	102	0	0	0	0
55-1010	Military Officer Special and Tactical Operations Leaders	36	N/A	0	0	0	0	0	0	0	0

Table 55 — Part-Time Labor Force-to-Job Openings Skills Match Fresno County

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
		14,467		131,465	62,909	32,803	28,056	22,455	15,570	11,628	20,953
11-1021	General and Operations Managers	166	Bachelor's	387	58	88	20	222	0	0	58
11-10XX	Chief executives and legislators	17	Bachelor's	240	116	0	32	66	25	0	116
11-2020	Marketing and Sales Managers	41	Bachelor's	304	72	0	0	0	233	0	72
11-2031	Public Relations Managers	6	Bachelor's	21	21	0	0	0	0	0	21
11-3011	Administrative Services Managers	20	Bachelor's	0	0	0	0	0	0	0	0
11-3021	Computer and Information Systems Managers	9	Bachelor's	19	0	0	19	0	0	0	0
11-3031	Financial Managers	25	Bachelor's	290	290	0	0	0	0	0	290
11-3051	Industrial Production Managers	8	Bachelor's	32	0	0	32	0	0	0	0
11-3071	Transportation, Storage, and Distribution Managers	11	HS Dpl \ GED	41	0	22	0	0	19	0	0
11-3121	Human Resources Managers	10	Bachelor's	190	61	0	81	21	0	27	61
11-9013	Farmers, Ranchers, and Other Agricultural Managers	25	HS Dpl \ GED	1,065	278	622	204	75	80	0	84
11-9021	Constructions Managers	15	Bachelor's	65	0	0	43	22	0	0	0
11-9030	Education Administrators	56	Bachelor's	597	472	0	38	0	13	73	472
11-9041	Architectural and Engineering Managers	7	Bachelor's	0	0	0	0	0	0	0	0
11-9051	Food Service Managers	16	HS Dpl \ GED	433	192	78	113	80	128	18	17
11-9111	Medical and Health Services Managers	35	Bachelor's	83	83	0	0	0	0	0	83
11-9141	Property, Real Estate, and Community Association Managers	12	HS Dpl \ GED	189	93	27	72	21	0	0	69
11-9151	Social and Community Service Managers	29	Bachelor's	197	15	0	26	29	26	100	15
11-9XXX	Miscellaneous managers including postmansters and mail superintendents	17	AA	1,300	89	114	266	363	30	89	438

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
13-1022	Wholesale and Retail Buyers, Except Farm Products	10	HS Dpl \ GED	123	64	24	19	45	14	21	0
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	12	HS Dpl \ GED	25	25	0	25	0	0	0	0
13-1030	Claims Adjusters, Appraisers, Examiners, and Investigators	18	HS Dpl \ GED	78	24	0	0	24	0	54	0
13-1041	Compliance Officers, Except Ag., Construction, Health and SAFety, and Transport.	14	Bachelor's	223	201	0	0	22	0	0	201
13-1051	Cost Estimators	39	Bachelor's	61	0	0	20	0	41	0	0
13-1070	Human Resources, Training, and Labor Relations Specialists	33	Bachelor's	147	30	0	70	0	0	47	30
13-1081	Logisticians	5	Bachelor's	34	34	0	0	0	0	0	34
13-1111	Management Analysts	22	Bachelor's	248	149	0	0	20	43	36	149
13-1121	Meeting and Convention Planners	7	Bachelor's	44	0	0	0	0	20	25	0
13-1131	Fundraisers	7	Bachelor's	20	20	0	0	0	0	0	20
13-1141	Compensation, Benefits, and Job Analysis Specialists	7	Bachelor's	47	24	0	0	23	0	0	24
13-1151	Training and Development Specialists	14	Bachelor's	102	68	0	34	0	0	0	68
13-1161	Market Research Analysts and Marketing Specialists	26	Bachelor's	34	11	0	0	23	0	0	11
13-1199	Business Operations Specialists, All Other	43	HS Dpl \ GED	0	0	0	0	0	0	0	0
13-2011	Accountants and Auditors	91	Bachelor's	473	332	0	42	52	0	47	332
13-2031	Budget Analysts	6	Bachelor's	0	0	0	0	0	0	0	0
13-2051	Financial Analysts	8	Bachelor's	0	0	0	0	0	0	0	0
13-2070	Credit Counselors and Loan Officers	8	Bachelor's	113	72	41	0	0	0	0	72
13-2081	Tax Examiners and Collectors, and Revenue Agents	60	Bachelor's	226	61	61	0	79	24	0	61

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
15-1121	Computer Programmers	22	Bachelor's	51	51	0	0	0	0	0	51
15-1131	Computer Programmers	9	Bachelor's	44	44	0	0	0	0	0	44
15-113X	Software Developers, Applications and Systems Software	22	Bachelor's	160	117	0	0	44	0	0	117
15-1141	Database Administrators	5	Bachelor's	0	0	0	0	0	0	0	0
15-1142	Network and Computer Systems Administrators	16	Bachelor's	62	0	0	0	0	0	62	0
15-1143	Computer Network Architects	6	Bachelor's	0	0	0	0	0	0	0	0
15-1150	Computer Support Specialists	43	Some college, no degree	192	86	0	25	59	86	21	0
15-1199	Computer Occupations, All Other	6	Bachelor's	193	57	0	19	0	21	96	57
17-1010	Architects, Except Naval	7	Bachelor's	58	20	0	0	38	0	0	20
17-2051	Civil Engineers	33	Bachelor's	197	164	0	33	0	0	0	164
17-2070	Electrical and Electronics Engineers	12	Bachelor's	77	77	0	0	0	0	0	77
17-20XX	Biomedical and agricultural engineers	6	Bachelor's	0	0	0	0	0	0	0	0
17-2110	Industrial Engineers, including Health and Safety	6	Bachelor's	0	0	0	0	0	0	0	0
17-2141	Mechanical Engineers	8	Bachelor's	0	0	0	0	0	0	0	0
19-10XX	General and Operations Managers	7	Master's	39	39	0	0	0	0	0	39
19-2030	Chemists and Materials Scientists	7	Bachelor's	22	22	0	0	0	0	0	22
19-2040	Environmental Scientists and Geoscientists	12	Bachelor's	0	0	0	0	0	0	0	0
19-3030	Market and Survey Researchers	26	Doctoral or professional degree	121	121	0	0	0	0	0	121
19-3051	Urban and Regional Planners	10	Master's	0	0	0	0	0	0	0	0
19-4011	Agricultural and Food Science Technicians	6	AA	50	13	0	17	0	20	13	0

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
19-4021	Biological Technicians	6	Bachelor's	0	0	0	0	0	0	0	0
19-4031	Chemical Technicians	8	AA	0	0	0	0	0	0	0	0
19-40YY	Miscellaneous Life, Physical, and Social Science Technicians, Including Social Science Research Assistants	12	AA	168	5	0	0	0	72	5	91
21-1010	Counselors	89	HS Dpl \ GED	614	154	30	16	139	0	164	266
21-1020	Social Workers	100	Bachelor's	369	212	0	19	138	0	0	212
21-1092	Probation Officers and Correctional Treatment Specialists	10	Bachelor's	23	23	0	0	0	0	0	23
21-1093	Social and Human Service Assistants	85	HS Dpl \ GED	62	21	0	21	0	0	0	42
21-109X	Miscellaneous Community and Social Service Specialists	32	Bachelor's	168	88	17	17	0	46	0	88
21-2011	Clergy	23	Bachelor's	370	142	51	43	18	27	88	142
21-2021	Directors, Religious Activities and Education	18	Bachelor's	112	67	0	0	0	45	0	67
21-2099	Religious Workers, All Other	6	Bachelor's	99	16	19	0	64	0	0	16
23-10XX	Lawyers, and judges, magistrates, and other judicial workers	40	Doctoral or professional degree	198	198	0	0	0	0	0	198
23-2011	Paralegals and Legal Assistants	25	AA	124	0	0	0	82	23	0	19
25-1000	Postsecondary Teachers	120	Doctoral or professional degree	1,139	925	0	0	22	152	40	925
25-2010	Preschool and Kindergarten Teachers	63	AA	479	192	0	29	0	72	192	185
25-2020	Elementary and Middle School Teachers	219	Bachelor's	3,151	2,794	0	0	114	31	212	2,794
25-2030	Secondary School Teachers	137	Bachelor's	864	604	0	3	67	66	124	604
25-2050	Elementary and Middle School Teachers	27	Bachelor's	184	184	0	0	0	0	0	184
25-3000	Other Teachers and Instructors	141	Bachelor's	1,756	516	175	144	99	453	368	516

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
25-4021	Librarians	7	Master's	40	0	0	0	40	0	0	0
25-4031	Library Technicians	28	Postsecondary non-degree award	55	19	0	0	19	0	0	36
25-9041	Teacher Assistants	145	Some college, no degree	2,012	245	195	239	657	245	464	212
25-90XX	Other Education, Training, and Library Workers	19	Bachelor's	83	64	0	0	19	0	0	64
27-1020	Designers	22	Bachelor's	785	226	0	218	227	114	0	226
27-2012	Producers and Directors	10	Bachelor's	186	78	0	0	108	0	0	78
27-2020	Athletes, Coaches, Umpires, and Related Workers	21	HS Dpl \ GED	419	232	72	173	59	115	0	0
27-2040	Musicians, Singers, and Related Workers	16	Bachelor's	326	80	15	209	0	22	0	80
27-3031	Public Relations Specialists	10	Bachelor's	0	0	0	0	0	0	0	0
27-3090	Miscellaneous Media and Communication Workers	13	Bachelor's	294	173	0	0	17	0	104	173
27-40XX	Broadcast and Sound Engineering Techs and Radio Operators, and media and comemequipment workers, all other	11	Postsecondary non-degree award	0	0	0	0	0	0	0	0
29-1020	Dentists	13	Doctoral or professional degree	140	140	0	0	0	0	0	140
29-1031	Dieticians and Nutritionists	8	Bachelor's	75	75	0	0	0	0	0	75
29-1041	Optometrists	8	Doctoral or professional degree	31	31	0	0	0	0	0	31
29-1051	Pharmacists	33	Doctoral or professional degree	241	241	0	0	0	0	0	241
29-1060	Physicians and Surgeons	63	Doctoral or	256	256	0	0	0	0	0	256

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			professional degree								
29-1071	Physician Assistants	15	Master's	57	57	0	0	0	0	0	57
29-1122	Occupational Therapists	9	Master's	22	22	0	0	0	0	0	22
29-1123	Physical Therapists	19	Doctoral or professional degree	258	125	0	83	0	50	0	125
29-1126	Respiratory Therapists	9	AA	73	73	0	0	0	0	73	0
29-1127	SpeechLanguage Pathologists	17	Master's	82	82	0	0	0	0	0	82
29-1131	Veterinarians	6	Doctoral or professional degree	0	0	0	0	0	0	0	0
29-1141	Nurse Practitioners, and Nurse Midwives	260	AA	2,276	924	0	0	0	22	924	1,330
29-11XX	Nurse Practitioners, and Nurse Midwives	27	Master's	3	3	0	0	0	0	0	3
29-2010	Clinical Laboratory Technologists and Technicians	18	AA	22	0	0	0	0	0	0	22
29-2021	Dental Hygienists	16	AA	376	279	0	0	0	0	279	97
29-2030	Diagnostic Related Technologists and Technicians	27	AA	294	111	0	0	51	95	111	36
29-2041	Emergency Medical Technicians and Paramedics	26	Postsecondary non-degree award	19	19	0	0	0	19	0	0
29-2050	Health Diagnosing and Treating Practitioner Support Technicians	61	AA	250	36	0	0	214	0	36	0
29-2061	Licensed Practical and Licensed Vocational Nurses	72	Postsecondary non-degree award	294	127	0	58	127	0	109	0
29-2071	Medical Records and Health Information Technicians	22	Postsecondary non-degree award	229	0	0	31	0	0	170	27

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29-2081	Opticians, Dispensing	15	HS Dpl \ GED	0	0	0	0	0	0	0	0
29-2090	Miscellaneous Health Technologists and Technicians	13	Master's	154	28	0	126	0	0	0	28
29-9000	Other Healthcare Practitioners and Technical Occupations	13	Bachelor's	36	17	0	0	0	0	20	17
31-1010	Nursing, Psychiatric, and Home Health Aides	279	< HS	1,812	656	225	431	485	157	294	220
31-2020	Physical Therapist Assistants and Aides	6	AA	81	0	0	0	0	0	0	81
31-9091	Dental Assistants	30	Postsecondary non-degree award	898	196	58	408	196	0	115	121
31-9092	Medical Assistants	118	Postsecondary non-degree award	588	161	0	132	82	79	233	62
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	6	HS Dpl \ GED	188	70	0	36	34	0	71	47
31-9097	Phlebotomists	17	Postsecondary non-degree award	90	20	0	70	20	0	0	0
31-909X	Medical Assistants and Other Healthcare Support Occupations, except dental assistants	10	HS Dpl \ GED	124	54	0	0	54	0	40	30
33-1011	First-Line Supervisors of Correctional Officers	8	HS Dpl \ GED	38	0	0	0	0	0	0	38
33-2011	Firefighters	16	Postsecondary non-degree award	51	51	0	0	51	0	0	0
33-3010	Bailiffs, Correctional Officers, and Jailers	61	HS Dpl \ GED	45	19	0	0	19	0	0	26
33-3021	Detectives and Criminal Investigators	7	HS Dpl \ GED	55	18	0	0	18	0	22	16
33-3050	Police Officers	53	HS Dpl \ GED	61	0	0	0	0	0	35	26

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33-9030	Security Guards and Gaming Surveillance Officers	96	HS Dpl \ GED	1,135	776	22	410	366	210	24	102
33-9091	Crossing Guards	26	HS Dpl \ GED	89	50	39	23	27	0	0	0
33-909X	Lifeguards and Other Protective Service Workers	32	HS Dpl \ GED	125	0	111	0	0	13	0	0
35-1011	Chefs and Head Cooks	7	HS Dpl \ GED	430	226	21	81	144	31	0	153
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	104	HS Dpl \ GED	582	246	64	61	185	124	136	13
35-2010	Cooks	204	< HS	3,029	1,677	987	690	537	663	152	0
35-2021	Food Preparation Workers	101	< HS	1,616	701	161	540	316	281	151	167
35-3011	Bartenders	59	< HS	260	92	45	47	70	0	97	0
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	546	< HS	671	432	288	144	129	110	0	0
35-3022	Counter Attendant, Cafeteria, Food Concession, and Coffee Shop	64	< HS	346	162	96	66	40	111	34	0
35-3031	Waiters and Waitresses	306	< HS	2,952	938	204	734	514	910	351	240
35-3041	Food Servers, Nonrestaurant	34	< HS	255	93	71	22	0	47	0	115
35-9021	Dishwashers	93	< HS	788	557	557	0	0	207	0	24
35-9031	Host and Hostesses, Restaurant, Lounge, and Coffee Shop	64	< HS	633	311	44	267	132	147	0	44
35-90XX	Miscellaneous food preparation and serving related workers incl. dining room\cafeteria attendants, bartender helpers	114	< HS	913	604	317	287	65	112	58	74
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	18	HS Dpl \ GED	101	78	0	27	51	23	0	0
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	177	< HS	49	0	0	0	0	0	49	0

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37-2012	Maids and Housekeeping Cleaners	62	< HS	2,015	1,462	861	601	217	176	137	23
37-2021	Pest Control Workers	15	HS Dpl \ GED	55	55	0	34	21	0	0	0
37-3010	Grounds Maintenance Workers	82	< HS	2,680	1,999	1,316	683	239	79	216	147
39-1021	First-Line Supervisors of Personal Service Workers	14	HS Dpl \ GED	97	0	0	0	0	78	0	18
39-2021	Nonfarm Animal Caretakers	9	< HS	431	148	0	148	233	0	10	41
39-3010	Gaming Services Workers	25	HS Dpl \ GED	162	162	0	33	129	0	0	0
39-3031	Ushers, Lobby Attendants, and Ticket Takers	16	< HS	96	40	40	0	39	0	16	0
39-3090	Miscellaneous Entertainment Attendants and Related Workers	37	< HS	221	0	0	0	81	140	0	0
39-5012	Hairdressers, Hairstylists, and Cosmetologists	13	Postsecondary non-degree award	1,019	306	114	340	250	56	158	101
39-7010	Tour and Travel Guides	5	HS Dpl \ GED	70	20	0	20	0	0	19	31
39-9011	Childcare Workers	90	HS Dpl \ GED	2,234	677	604	235	443	406	285	261
39-9021	Personal Care Aides	354	< HS	4,828	3,125	1,644	1,481	807	137	388	371
39-9030	Recreation and Fitness Workers	28	HS Dpl \ GED	261	62	22	27	36	30	113	34
39-9041	Residential Advisors	13	HS Dpl \ GED	51	0	0	0	0	51	0	0
41-1011	First-Line Supervisors of Retail Sales Workers	120	HS Dpl \ GED	1,439	594	97	337	256	61	315	372
41-1012	First-Line Supervisors of Non-Retail Sales	17	HS Dpl \ GED	654	413	89	133	280	0	123	30
41-2010	Cashiers	458	< HS	6,672	3,289	865	2,424	1,016	1,654	383	330
41-2021	Counter and Rental Clerks	72	< HS	210	96	43	53	67	0	47	0
41-2022	Parts Salespersons	32	< HS	238	17	0	17	222	0	0	0
41-2031	Retail Salespersons	637	< HS	4,327	1,506	520	986	844	1,377	258	342
41-3011	Advertising Sales Agents	13	HS Dpl \ GED	158	110	0	110	0	0	0	48

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41-3021	Insurance Sales Agents	65	HS Dpl \ GED	325	68	0	0	68	0	0	257
41-3031	Securities, Commodities, and Financial Services Sales Agents	14	Bachelor's	0	0	0	0	0	0	0	0
41-3099	Sales Representatives, Services, All Other	89	HS Dpl \ GED	306	112	12	0	112	55	60	67
41-4010	Sales Representatives, Wholesale and Manufacturing	130	Bachelor's	725	252	6	34	342	19	72	252
41-9010	Models, Demonstrators, and Product Promoters	22	HS Dpl \ GED	106	76	0	27	48	31	0	0
41-9020	Real Estate Brokers and Sales Agents	6	HS Dpl \ GED	845	479	18	30	449	25	67	256
41-9041	Telemarketers	30	< HS	37	0	0	0	0	0	0	37
41-9099	Sales and Related Workers, All Other	11	HS Dpl \ GED	148	60	0	21	39	0	63	25
43-1011	First-Line Supervisors of Office and Administrative Support Workers	143	HS Dpl \ GED	401	311	0	44	267	11	0	79
43-2011	Switchboard Operators, Including Answering Service	6	HS Dpl \ GED	20	20	0	0	20	0	0	0
43-3011	Bill and Account Collectors	35	HS Dpl \ GED	171	171	0	88	83	0	0	0
43-3021	Billing and Posting Clerks	49	HS Dpl \ GED	178	56	0	0	56	0	0	122
43-3031	Bookkeeping, Accounting, and Auditing Clerks	93	HS Dpl \ GED	838	555	17	196	359	47	52	166
43-3051	Payroll and Timekeeping Clerks	21	HS Dpl \ GED	203	149	0	0	149	25	0	29
43-3061	Procurement Clerks	8	HS Dpl \ GED	0	0	0	0	0	0	0	0
43-3071	Tellers	40	HS Dpl \ GED	665	425	42	200	225	159	39	0
43-4031	Court, Municipal, and License Clerks	12	HS Dpl \ GED	0	0	0	0	0	0	0	0
43-4051	Customer Service Representatives	265	HS Dpl \ GED	2,251	869	77	437	432	838	307	160
43-4061	Eligibility Interviewers, Government Programs	52	HS Dpl \ GED	0	0	0	0	0	0	0	0
43-4071	File Clerks	19	HS Dpl \ GED	488	160	32	74	86	249	24	23
43-4081	Hotel, Motel, and Resort Desk Clerks	19	HS Dpl \ GED	167	107	0	54	53	22	38	0

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43-4111	Interviewers, Except Eligibility and Loan	14	HS Dpl \ GED	378	218	0	79	139	72	21	67
43-4121	Library Assistants, Clerical	14	HS Dpl \ GED	155	33	0	33	0	94	0	27
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	12	HS Dpl \ GED	145	145	0	0	145	0	0	0
43-4171	Receptionists and Information Clerks	108	HS Dpl \ GED	1,658	1,004	104	566	438	434	40	76
43-4199	Information and Record Clerks, All Other	21	HS Dpl \ GED	5	5	0	5	0	0	0	0
43-4XXX	Correspondent clerks and order clerks	15	HS Dpl \ GED	220	106	114	22	84	0	0	0
43-5011	Cargo and Freight Agents	8	HS Dpl \ GED	12	0	0	0	0	0	12	0
43-5030	Dispatchers	43	HS Dpl \ GED	138	46	30	31	15	45	0	17
43-5052	Postal Service Mail Carriers	21	HS Dpl \ GED	18	0	0	0	0	0	18	0
43-5061	Production, Planning, and Expediting Clerks	25	HS Dpl \ GED	243	97	30	18	78	0	99	17
43-5071	Shipping, Receiving, and Traffic Clerks	56	HS Dpl \ GED	552	429	32	181	249	66	25	0
43-5081	Stock Clerks and Order Fillers	216	< HS	2,268	1,282	636	646	389	311	220	65
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	19	HS Dpl \ GED	20	0	20	0	0	0	0	0
43-6010	Secretaries and Administrative Assistants	264	HS Dpl \ GED	2,040	972	19	303	669	81	395	573
43-9021	Data Entry Keyers	9	HS Dpl \ GED	387	220	77	128	92	38	35	17
43-9041	Insurance Claims and Policy Processing Clerks	31	HS Dpl \ GED	104	21	0	0	21	20	0	63
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	14	HS Dpl \ GED	75	18	0	0	18	57	0	0
43-9061	Office Clerks, General	245	HS Dpl \ GED	2,117	729	79	559	170	821	256	233
43-9XXX	Miscellaneous office and administrative support workers including desktop publishers	67	HS Dpl \ GED	164	47	0	0	47	0	69	47
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	21	HS Dpl \ GED	231	22	209	22	0	0	0	0

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45-2011	Agricultural Inspectors	9	Bachelor's	0	0	0	0	0	0	0	0
45-2041	Graders and Sorters, Agricultural Products	42	< HS	1,675	1,509	1,064	445	90	60	0	15
45-20XX	Miscellaneous agricultural workers including animal breeders	1,184	HS Dpl \ GED	15,110	2,380	12,022	1,877	503	583	23	101
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	28	HS Dpl \ GED	258	146	85	42	105	0	26	0
47-2031	Carpenters	44	HS Dpl \ GED	415	218	158	166	52	0	0	39
47-2040	Carpet, Floor, and Tile Installers and Finishers	8	< HS	144	144	73	70	0	0	0	0
47-2050	Cement Masons, Concrete Finishers, and Terrazzo Workers	28	< HS	20	0	0	0	20	0	0	0
47-2061	Construction Laborers	94	< HS	1,740	1,222	788	434	244	116	85	72
47-207X	Construction equipment operators except paving, surfacing, and tamping equipment operators	27	HS Dpl \ GED	302	210	92	210	0	0	0	0
47-2080	Drywall Installers, Ceiling Tile Installers, and Tapers	17	< HS	103	24	13	11	79	0	0	0
47-2111	Electricians	54	HS Dpl \ GED	350	174	80	131	44	30	66	0
47-2140	Painters and Paperhangers	9	< HS	821	564	334	230	19	0	22	216
47-2150	Pipelayers, Plumbers, Pipefitters, and Steamfitters	29	< HS	428	399	198	200	29	0	0	0
47-2181	Roofers	17	< HS	405	389	215	173	17	0	0	0
47-2211	Sheet Metal Workers	9	HS Dpl \ GED	0	0	0	0	0	0	0	0
47-2221	Structural Iron and Steel Workers	6	HS Dpl \ GED	67	24	43	24	0	0	0	0
47-3010	Helpers, Construction Trades	6	< HS	20	20	20	0	0	0	0	0
47-4011	Construction and Building Inspectors	6	HS Dpl \ GED	18	18	0	18	0	0	0	0
47-4041	Hazardous Materials Removal Workers	7	HS Dpl \ GED	0	0	0	0	0	0	0	0

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47-4051	Highway Maintenance Workers	6	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	41	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-2011	Computer, Automated Teller, and Office Machine Repairers	8	Some college, no degree	46	46	0	0	0	46	0	0
49-2020	Radio and Telecommunications Equipment Installers and Repairers	35	AA	62	0	0	0	62	0	0	0
49-209X	Electrical and electronics repairers, transportation equipment, and industrial and utility	6	Postsecondary non-degree award	0	0	0	0	0	0	0	0
49-3011	Aircraft Mechanics and Service Technicians	16	Postsecondary non-degree award	0	0	0	0	0	0	0	0
49-3021	Automotive Body and Related Repairers	15	HS Dpl \ GED	75	12	39	12	0	0	0	23
49-3023	Automotive Service Technicians and Mechanics	74	HS Dpl \ GED	454	325	130	46	279	0	0	0
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	29	HS Dpl \ GED	93	93	0	87	6	0	0	0
49-3040	Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics	31	HS Dpl \ GED	295	254	13	91	162	0	28	0
49-3090	Miscellaneous Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	22	HS Dpl \ GED	76	41	35	0	41	0	0	0
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	37	Postsecondary non-degree award	216	121	0	14	33	88	50	30
49-9031	Home Appliance Repairers	12	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-9043	Maintenance Workers, Machinery	8	HS Dpl \ GED	17	17	0	17	0	0	0	0
49-904X	Industrial and Refractory Machinery Mechanic	34	HS Dpl \ GED	205	134	71	104	30	0	0	0

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49-9051	Electrical Power-Line Installers and Repairers	31	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-9052	Telecommunications Line Installers and Repairers	19	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-9060	Precision Instrument and Equipment Repairers	5	AA	0	0	0	0	0	0	0	0
49-9071	Maintenance and Repair Workers, General	94	HS Dpl \ GED	354	55	299	35	20	0	0	0
49-9098	Helpers--Installation, Maintenance, and Repair Workers	15	HS Dpl \ GED	0	0	0	0	0	0	0	0
49-90XX	Miscellaneous Installation, Maintenance, and Repair Workers, Including Wind Turbine Service Technicians	8	Some college, no degree	245	0	55	22	36	0	88	44
51-1011	First-Line Supervisors of Production and Operating Workers	23	Postsecondary non-degree award	199	136	7	56	136	0	0	0
51-2041	Structural Metal Fabricators and Fitters	12	HS Dpl \ GED	65	36	29	0	36	0	0	0
51-2090	Miscellaneous Assemblers and Fabricators	55	HS Dpl \ GED	342	70	77	55	15	123	72	0
51-3011	Bakers	19	< HS	370	162	67	94	34	0	175	0
51-3020	Butchers and Other Meat, Poultry, and Fish Processing Workers	102	< HS	433	306	223	83	92	35	0	0
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	6	< HS	21	21	21	0	0	0	0	0
51-3092	Food Batchmakers	16	HS Dpl \ GED	103	34	0	34	0	69	0	0
51-3099	Food Processing Workers, All Other	9	< HS	133	67	67	0	66	0	0	0
51-4041	Machinists	19	HS Dpl \ GED	133	133	0	133	0	0	0	0
51-4120	Welding, Soldering, and Brazing Workers	22	HS Dpl \ GED	168	168	0	146	22	0	0	0
51-4XXX	Misc. metal workers\plastic workers incl. milling and planing mach. setters, and	6	HS Dpl \ GED	0	0	0	0	0	0	0	0

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	multiple mach. tool setters, and lay-out workers										
51-6011	Laundry and Dry-Cleaning Workers	24	< HS	277	164	34	131	63	50	0	0
51-8010	Power Plant Operators, Distributors, and Dispatchers	7	HS Dpl \ GED	0	0	0	0	0	0	0	0
51-8031	Water and Wastewater Treatment Plant and System Operators	12	HS Dpl \ GED	0	0	0	0	0	0	0	0
51-9020	Crushing, Grinding, Polishing, Mixing, and Blending Workers	11	HS Dpl \ GED	0	0	0	0	0	0	0	0
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	39	HS Dpl \ GED	546	343	36	235	108	87	19	61
51-9111	Packaging and Filling Machine Operators and Tenders	47	HS Dpl \ GED	608	251	322	207	44	17	0	18
51-9198	Helpers--Production Workers	35	< HS	95	56	18	39	0	0	0	39
51-91XX	Other production workers including semiconductor processors and cooling and freezing equipment operators	26	AA	402	0	197	156	49	0	0	0
53-1000	Supervisors of Transportation and Material Moving Workers	50	HS Dpl \ GED	43	43	0	0	43	0	0	0
53-2020	Air Traffic Controllers and Airfield Operations Specialists	6	AA	0	0	0	0	0	0	0	0
53-3020	Bus Drivers	49	HS Dpl \ GED	648	522	47	118	404	42	13	25
53-3030	Driver/Sales Workers and Truck Drivers	331	HS Dpl \ GED	2,794	1,490	469	963	527	204	185	447
53-3041	Taxi Drivers and Chauffeurs	19	< HS	375	277	25	252	68	0	0	29
53-3099	Motor Vehicle Operators, All Other	7	HS Dpl \ GED	0	0	0	0	0	0	0	0
53-6021	Parking Lot Attendants	6	< HS	104	60	0	60	0	44	0	0
53-6031	Service Station Attendants	20	< HS	64	31	0	31	33	0	0	0
53-7051	Industrial Truck and Tractor Operators	54	< HS	883	686	335	351	122	49	0	26
53-7061	Cleaners of Vehicles and Equipment	81	< HS	920	414	321	93	346	66	94	0

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
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	351	< HS	2,814	2,022	815	1,207	233	349	211	0
53-7063	Machine Feeders and Offbearers	6	< HS	0	0	0	0	0	0	0	0
53-7064	Packers and Packagers, Hand	156	< HS	1,905	1,598	1,089	509	259	28	20	0
53-7081	Refuse and Recyclable Material Collectors	13	< HS	293	73	45	29	220	0	0	0
55-1010	Military Officer Special and Tactical Operations Leaders	36	N/A	0	0	0	0	0	0	0	0