



November 15, 2016

Regional Economic Sector and Skills Gap Analysis: Tulare County

Prepared for:

Workforce Investment Board of Tulare County

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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 Tulare 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 11.7% in 2015, down from the peak of 17.2% in 2010, but still well above the low point before the recession of 8.5% in 2006.
- Before the recession, total jobs in the County peaked at 150,584 in 2008 and only recently reached that level again. Jobs are estimated to total 151,798 (annual average) in 2015.
- Health Care is projected to see the highest growth in jobs between 2015 and 2025 (4,693 new jobs), followed by Retail (3,686 new jobs), Food Services (2,079), Admin Support (1,610 new jobs), and Education (1,447 new jobs).
- Tulare County is also expected to see very strong growth in Manufacturing (1,098 new jobs), Wholesale (759 new jobs), Warehousing (651 new jobs) and Transportation industries (543 new jobs).
- Construction continues rebounding from the recession but at a slower rate. It is projected to grow by 560 jobs between 2015 and 2025, after having recovered more than 1,100 jobs over the past five years.
- The Professional, Scientific and Technical services sector is projected to see growth as well, at 677 new jobs.
- The Agriculture and Health and Wellness clusters are projected to have the highest job growth over the next ten years, at 4,994 and 4,235 new jobs, respectively.
- Within the broader Agricultural Cluster, a number of food processing industries are projected to increase employment, including fluid milk manufacturing (NAICS 311511), roasted nuts and peanut butter (NAICS 311911), and other animal food manufacturing (NAICS 311119), which are all expected to each increase by at least 200 new jobs between 2015 and 2025. In addition, the agriculture related distribution (logistics) sector is projected to add about 1,800 jobs over the next ten years. 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 dry, condensed, evaporated dairy products (NAICS 311514), and cheese manufacturing (NAICS 311513).

- In the Health cluster, nearly 63 percent (3,167 out of 4,994) of the new jobs are in medical treatment facilities including doctor's offices, hospitals and a variety of types of clinics. The remainder is in medical supplies and support services, with almost 1,400 new jobs focused on care for the elderly and disabled.
- The projections of job openings are heavily concentrated in food services and sales (retail) (930 combined annual openings), farming (757 annual openings), office and administrative support (426 annual openings), and education (359 annual openings). Other high demand occupations include health care (320 annual openings) and transportation (280 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. A more detailed breakdown of labor force educational attainment and training requirements for openings is provided in the Appendix.

LABOR FORCE CHARACTERISTICS

- The labor force in Tulare County is generally concentrated in the younger age groups, with slightly over 15 percent in the 16-24 age group, and almost 25 percent of the 25-34 age group. The prime working age group of 35-54 has 43 percent of the workforce, which is less concentrated on a year to year basis than the younger age groups. Workers over 55 constitute about 17 percent of the workforce and a number of employers report that impending retirements are a significant issue for them in terms of anticipated openings in the future.
- Non-citizen workers constitute 23 percent of the workforce in Tulare County, though the rate varies with age. At 25 to 27 percent of the millennial (25 to 34) and prime working age (35 to 54) labor force, non-citizens are somewhat more concentrated in these two sub-populations relative to their overall concentration level, i.e. 23 percent. In contrast, non-citizens comprise almost 18 percent of the labor force between 16 and 24.
- The Tulare County workforce exhibits comparable educational attainment to the rest of the San Joaquin Valley region. About 72 percent of workers 25 years and older have obtained at least a high school diploma or equivalent and 24.5 percent have a college degree.
- Seventy percent of the non-citizens 25 and over in the labor force have not obtained a high school diploma or a GED. Slightly over 18 percent of non-citizens in the labor force have earned a high school diploma or equivalent, which is nine percentage points lower than the rate for citizens (i.e. 27.3 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 93 percent Latino; almost 38 percent of all Latinos in the workforce have no high school diploma or GED. Whites and Others are almost five to six more likely than Latinos to have earned a college degree: almost five percent of the Latinos in the labor force have earned a college degree versus 31 percent for Whites and 25 percent for others races.

- Veterans in Tulare County tend to have high levels of overall educational attainment, with almost five percent not achieving a high school diploma. For the workforce as a whole, 28 percent do not have a high school diploma or equivalent degree. Among disabled workers, however, nearly 30 percent do not have a high school diploma. However, Veterans' unemployment level is still relatively high at 10.9 percent, with unemployment levels for disabled workers at an even higher 19.9 percent.

CONCLUSION

At 1.1 percent a year, jobs in Tulare County is expected to grow modestly from now to 2025, although analysts project a number of sectors (Health, Logistics, Professional, Scientifics and Technical Services, Retail, Food Services 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 11.7 percent in 2015, down from the peak of 17.2 percent in 2010, but still well above the low point before the recession of 8.5 percent in 2006 (Table 1). While the number of employed persons in the labor force has been increasing since 2010, the size of the labor force has trended downward over the same period, from 203,100 in 2010 to 200,900 in 2013, and finally to 198,075 in 2015.

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

Period	Labor Force Trends	Employed Labor Force	Unemployment Rate
08-15 Ann. Growth Rate	-0.1%	-0.2%	15.0%
00-08 Ann. Growth Rate	1.8%	1.8%	10.6%
2015	198,075	174,958	11.7%
2014	198,600	172,400	13.2%
2013	200,900	172,000	14.4%
2012	201,900	169,300	16.2%
2011	203,700	168,900	17.1%
2010	203,100	168,200	17.2%
2009	203,200	173,000	14.9%
2008	198,900	177,400	10.8%
2007	191,600	173,900	9.2%
2006	187,400	171,500	8.5%
2005	183,300	166,000	9.4%
2004	179,800	159,000	11.6%
2003	181,200	159,100	12.2%
2002	180,500	159,000	11.9%
2001	175,200	155,200	11.4%
2000	172,000	154,100	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.

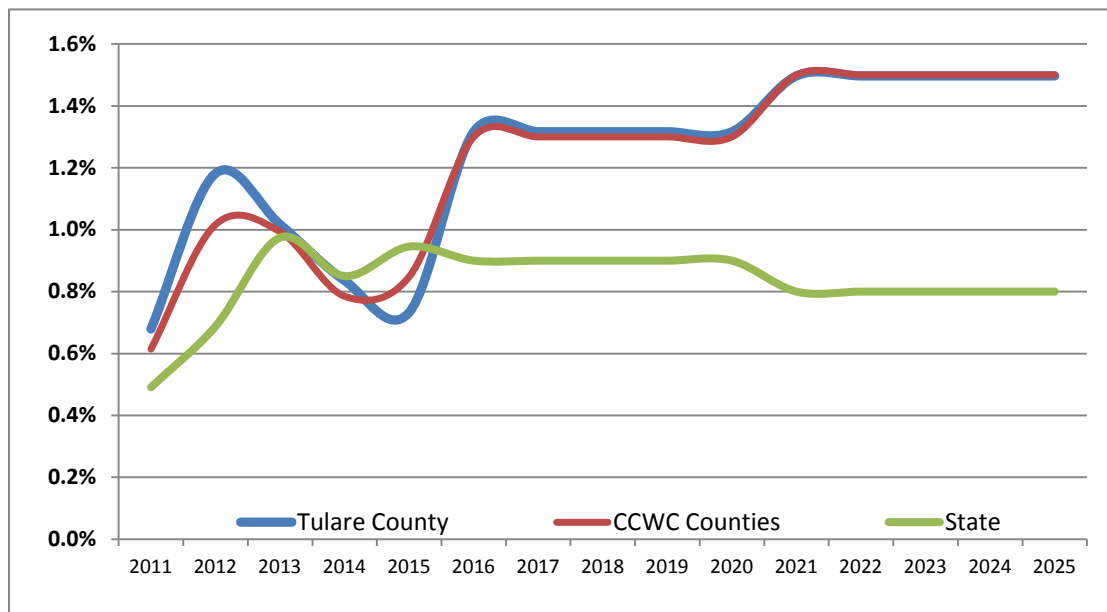
The household population has increased by 0.9 percent annually between 2010 and 2015 – a rate similar to the rate for the multi-county CCWC region as a whole (Table 2). Household population growth in the San Joaquin Valley exceeded statewide growth rates between 2011 and 2013, but has slowed in the past two years. As shown in Figure 1, Tulare County is projected to grow at the same rate as the CCWC region as a whole over the next five years (2015-2020), well above the state average.

Table 2 – Total and Household Population trends: Tulare County, CCWC Region, and California

Year	Household Population					
	Tulare County	Growth Rate	CCWC Counties	Growth Rate	State ('000)	Growth Rate
2010	442,179		3,888,941		36,412	
2011	445,183	0.7%	3,912,829	0.6%	36,591	0.5%
2012	450,445	1.2%	3,952,595	1.0%	36,843	0.7%
2013	455,025	1.0%	3,991,868	1.0%	37,202	1.0%
2014	458,827	0.8%	4,023,198	0.8%	37,518	0.9%
2015	462,189	0.7%	4,057,322	0.8%	37,873	0.9%
10-15	20,010	0.9%	168,381	0.9%	1,461	0.8%
Year	Total Population					
	Tulare County	Annual Growth Rates	CCWC Counties	Growth Rate	State ('000)	Growth Rate
2010	437,407		4,004,407		37,254	
2011	440,473	0.7%	4,025,282	0.5%	37,428	0.5%
2012	445,502	1.1%	4,058,833	0.8%	37,681	0.7%
2013	450,069	1.0%	4,094,785	0.9%	38,031	0.9%
2014	453,880	0.8%	4,129,749	0.9%	38,357	0.9%
2015	457,224	0.7%	4,165,560	0.9%	38,715	0.9%
10-15	19,817	0.9%	161,153	0.8%	1,461	0.8%

Source: ADE, Inc., based on Calif. Dept. of Finance E-5 Reports

Figure 1 – Household Population Annual Growth Rates



Source: ADE, Inc., based on Calif. Dept. of Finance E-5 Reports and P-4 Reports

Before the recession, total jobs in the County peaked at 150,584 in 2008 and only recently passed that level in 2015. The annual average number of jobs in 2015 is estimated at 151,798 (Table 3).

Through 2008, total jobs in the County were growing at a 1.6 annual percentage rate, while since 2008, the number of jobs have grown at a much slower 0.1 percent per year.

Table 3 — Trends in Total Number of Jobs: 2000-2015: Tulare County

Period	Total Employment
08-15 Ann. Growth Rate	0.1%
00-08 Ann. Growth Rate	1.6%
2015	151,798
2014	148,560
2013	147,790
2012	142,658
2011	143,868
2010	144,146
2009	144,480
2008	150,584
2007	149,797
2006	146,806
2005	140,360
2004	134,564
2003	135,547
2002	136,057
2001	132,878
2000	132,816

Source: Applied Development Economics, based on CA EDD LMID.

Farm employment declined by roughly 3,400 jobs between 2010 and 2015, and is projected to decline even more by 2025 (Table 4). Despite these overall trends, some job growth is projected in farm support (NAICS 115), especially within farm management services (NAICS 115116), which is projected to grow by 740 jobs for an annual increase of three percent (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 Tulare County are mainly in food processing. Manufacturing jobs increased by at a healthy clip of 2.5 percent a year between 2010 and 2015, for a net increase of 1,400 jobs. This sector is expected to continue to increase over the next ten years but at a slower rate of 0.9 percent per year, though this would result in over 1,100 new manufacturing jobs. Within manufacturing, food processing (NAICS 311-312) is expected to increase by 1,000 net jobs by 2025 as was the case in 2015, for an annual increase of 1.4 percent. Specific industries slated to grow include fluid milk manufacturing (NAICS 311511)(366 new jobs), roasted nuts and peanut butter

(NAICS 311911)(288 new jobs), other animal food manufacturing (NAICS 311119)(237 new jobs), and frozen specialty food manufacturing (NAICS311412)(112 new jobs)(Table 5). A number of non-food processing manufacturing industries are also projected to produce new jobs. While these sectors are not food manufacturing industries, many are within the agricultural cluster. Plastic packaging, film and sheet manufacturing (NAICS 326112) is projected to grow by 323 new jobs, followed by corrugated and solid fiber box manufacturing (NAICS 322221)(157 new jobs) and other paperboard container manufacturing (NAICS 322219)(92 new jobs)(Table 5).

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

NAICS	Industry Sector	Employment			Change	Ann. Growth Rate	
		2010	2015	2025p	15-25	10-15	15-25
	Total	147,138	154,861	173,876	19,015	1.0%	1.2%
11	Agriculture	38,509	35,131	34,532	-599	-1.8%	-0.2%
21	Mining	53	59	67	8	0.0%	0.0%
22	Utilities	668	741	672	-69	2.1%	-1.0%
23	Construction	4,344	5,449	6,013	564	4.6%	1.0%
31-33	Manufacturing	10,562	11,967	13,065	1,098	2.5%	0.9%
42	Wholesale	3,853	3,837	4,596	759	-0.1%	1.8%
44-45	Retail	14,273	16,647	20,333	3,686	3.1%	2.0%
48	Transportation	2,414	3,313	3,964	651	6.5%	1.8%
49	Warehousing	2,361	3,310	3,853	543	7.0%	1.5%
51	Information	1,069	934	987	52	-2.7%	0.5%
52	Finance and Insurance	2,853	2,804	3,183	379	-0.3%	1.3%
53	Real Estate and Leasing	1,153	1,150	1,383	233	-0.1%	1.9%
54	Professional, Scientific, Technical	2,029	2,241	2,918	677	2.0%	2.7%
55	Mgt.of Companies	967	614	261	-352	-8.7%	-8.2%
561	Admin Support	5,446	6,177	7,787	1,610	2.6%	2.3%
562	Waste Mgt.	319	270	395	125	-3.3%	3.9%
61	Education	15,461	16,276	17,724	1,447	1.0%	0.9%
62	Health	17,909	19,331	24,024	4,693	1.5%	2.2%
71	Arts, Recreation, and Entertainment	820	722	759	37	-2.5%	0.5%
721	Accommodations	655	698	790	93	1.3%	1.3%
722	Food and Drinking Services	7,805	9,491	11,570	2,079	4.0%	2.0%
81	Other Services	3,280	3,505	4,216	711	1.3%	1.9%
92	Public Admin (excpt. Military)	9,443	9,090	9,746	656	-0.8%	0.7%
98	Military	722	717	632	-86	-0.1%	-1.3%
99	Misc.	171	388	407	18	17.8%	0.5%

Source: Applied Development Economics, based on EMSI Q4 QCEW and Non-QCEW Industry Employment Trends.
(Note: 2025p = projections)

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). Both drywall and insulation contractors (NAICS 238310) and plumbing, heating, and air conditioning (NAICS 238220) are expected to increase respectively by at least 250 new jobs, followed by water and sewer line construction (NAICS 237110) and all other specialty trade contractors (NAICS 238310).

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 24,000 in 2025 from 19,300 in 2015, for an annual rate of growth of 2.2 percent (Table 4). In an effort to accurately characterize the state of employment in the sector in Tulare 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 Tulare County.

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

NAICS	Industry	Employment		Change	CAGR
		2015	2025p	'15-'25	'15-'25
ALL INDUSTRIES EXHIBITING 50+ EMP. GROWTH		100,532	123,943	23,411	2.1%
115112	Soil Preparation, Planting, and Cultivating	633	740	107	1.6%
115115	Farm Labor Contractors and Crew Leaders	15,325	15,966	641	0.4%
115116	Farm Management Services	1,856	2,599	743	3.4%
	11 Agric.	17,815	19,305	1,490	0.8%
236118	Residential Remodelers	161	216	55	3.0%
237110	Water and Sewer Line and Related Structures Construction	377	517	139	3.2%
237990	Other Heavy and Civil Engineering	26	269	243	26.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	1,114	1,375	261	2.1%
238310	Drywall and Insulation Contractors	429	698	269	5.0%
238990	All Other Specialty Trade Contractors	366	472	106	2.6%
	23 Const.	2,447	3,277	831	3.0%
311119	Other Animal Food Manufacturing	466	703	237	4.2%
311412	Frozen Specialty Food Manufacturing	1,887	1,999	112	0.6%
311421	Fruit and Vegetable Canning	384	446	61	1.5%
311511	Fluid Milk Manufacturing	1,139	1,505	366	2.8%
311520	Ice Cream and Frozen Dessert Manufacturing	280	356	76	2.4%
311911	Roasted Nuts and Peanut Butter Manufacturing	815	1,103	288	3.1%
313110	Fiber, Yarn, and Thread Mills	92	196	105	7.9%
322211	Corrugated and Solid Fiber Box Manufacturing	374	531	157	3.6%
322219	Other Paperboard Container Manufacturing	408	500	92	2.1%
326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing	488	811	323	5.2%
333993	Packaging Machinery Manufacturing	220	278	59	2.4%
	31-33 Man.	6,553	8,428	1,875	2.5%

NAICS	Industry	Employment		Change	CAGR
		2015	2025p	'15-'25	'15-'25
423420	Office Equipment Merchant Wholesalers	71	135	64	6.7%
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	160	265	105	5.2%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	57	119	62	7.6%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	139	213	74	4.4%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	210	296	86	3.5%
424910	Farm Supplies Merchant Wholesalers	489	683	194	3.4%
425120	Wholesale Trade Agents and Brokers	256	339	83	2.8%
	42 Wholesale	1,382	2,050	668	4.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	126	187	62	4.1%
441310	Automotive Parts and Accessories Stores	477	549	72	1.4%
442110	Furniture Stores	228	395	167	5.6%
443142	Electronics Stores	308	426	117	3.3%
444110	Home Centers	887	1,157	270	2.7%
445110	Supermarkets and Other Grocery (except Convenience) Stores	2,490	2,813	323	1.2%
445120	Convenience Stores	182	258	76	3.5%
445210	Meat Markets	98	163	64	5.2%
446110	Pharmacies and Drug Stores	695	756	61	0.8%
448120	Women's Clothing Stores	290	507	217	5.8%
448130	Children's and Infants' Clothing Stores	81	135	54	5.3%
448140	Family Clothing Stores	641	991	350	4.5%
448210	Shoe Stores	272	367	96	3.1%
451120	Hobby, Toy, and Game Stores	1,273	2,389	1,117	6.5%
452112	Discount Department Stores	2,050	2,585	535	2.3%
452910	Warehouse Clubs and Supercenters	1,155	1,749	593	4.2%
452990	All Other General Merchandise Stores	600	855	254	3.6%
	44-45 Retail	11,853	16,282	4,428	3.2%
484110	General Freight Trucking, Local	631	701	71	1.1%
484121	General Freight Trucking, Long-Distance, Truckload	691	955	265	3.3%
484122	General Freight Trucking, Long-Distance, Less Than Truckload	152	208	56	3.2%
484220	Specialized Freight (except Used Goods) Trucking, Local	804	904	99	1.2%
485991	Special Needs Transportation	235	385	151	5.1%
	48 Trans.	2,512	3,154	642	2.3%
493110	General Warehousing and Storage	2,190	2,809	619	2.5%
	49 Warehousing	2,190	2,809	619	2.5%
511130	Book Publishers	96	186	90	6.8%
517110	Wired Telecommunications Carriers	261	422	161	4.9%

NAICS	Industry	Employment		Change	CAGR
		2015	2025p	'15-'25	'15-'25
	51 Information	357	608	251	5.5%
522292	Real Estate Credit	145	246	102	5.5%
524114	Direct Health and Medical Insurance Carriers	578	908	329	4.6%
524292	Third Party Administration of Insurance and Pension Funds	153	228	74	4.0%
	52 Fin. And Insr.	876	1,382	505	4.7%
532310	General Rental Centers	114	282	168	9.5%
	53 R.E. and Leasing	114	282	168	9.5%
541213	Tax Preparation Services	114	166	52	3.8%
541330	Engineering Services	226	360	134	4.8%
541380	Testing Laboratories	118	204	86	5.6%
541614	Process, Physical Distribution, and Logistics Consulting Services	84	152	69	6.2%
541690	Other Scientific and Technical Consulting Services	253	484	231	6.7%
	54 Prof., Sci., Tech.	796	1,367	571	5.6%
	55 Mgt of Cos.				
561110	Office Administrative Services	363	687	324	6.6%
561311	Employment Placement Agencies	228	348	119	4.3%
561320	Temporary Help Services	2,905	3,690	785	2.4%
561510	Travel Agencies	89	149	60	5.3%
561720	Janitorial Services	483	627	144	2.7%
561790	Other Services to Buildings and Dwellings	101	170	69	5.4%
561910	Packaging and Labeling Services	81	170	89	7.7%
561920	Convention and Trade Show Organizers	86	155	69	6.1%
562111	Solid Waste Collection	163	265	102	5.0%
	56 Admin, Support, Waste	4,498	6,260	1,762	3.4%
611110	Elementary and Secondary Schools	13,958	15,136	1,178	0.8%
611710	Educational Support Services	116	211	94	6.1%
	61 Education	14,074	15,346	1,273	0.9%
621210	Offices of Dentists	878	1,048	170	1.8%
621420	Outpatient Mental Health and Substance Abuse Centers	157	250	93	4.8%
621492	Kidney Dialysis Centers	97	161	64	5.2%
621498	All Other Outpatient Care Centers	718	1,354	636	6.5%
621512	Diagnostic Imaging Centers	99	171	72	5.6%
621910	Ambulance Services	224	351	127	4.6%
622110	General Medical and Surgical Hospitals	6,946	7,532	585	0.8%
623110	Nursing Care Facilities (Skilled Nursing Facilities)	1,835	2,403	568	2.7%
623210	Residential Intellectual and Developmental Disability Facilities	549	745	196	3.1%
623312	Assisted Living Facilities For the Elderly	737	1,104	367	4.1%

NAICS	Industry	Employment		Change	CAGR
		2015	2025p	'15-'25	'15-'25
624120	Services For the Elderly and Persons with Disabilities	1,904	3,295	1,392	5.6%
624190	Other Individual and Family Services	363	524	161	3.7%
624229	Other Community Housing Services	69	123	53	5.9%
624310	Vocational Rehabilitation Services	930	1,035	105	1.1%
	62 Health	15,507	20,097	4,589	2.6%
	71 Arts, Enter., Rec.				
721110	Hotels (except Casino Hotels) and Motels	644	745	101	1.5%
722310	Food Service Contractors	177	338	162	6.7%
722511	Full-Service Restaurants	3,286	3,844	558	1.6%
722513	Limited-Service Restaurants	5,165	6,296	1,131	2.0%
722515	Snack and Nonalcoholic Beverage Bars	651	880	229	3.1%
	72 Accommodations and Food Service	9,922	12,103	2,181	2.0%
811111	General Automotive Repair	342	401	60	1.6%
811121	Automotive Body, Paint, and Interior Repair and Maintenance	255	334	79	2.7%
811192	Car Washes	193	318	124	5.1%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	474	690	216	3.8%
812332	Industrial Launderers	42	100	58	9.1%
	81 Other Svcs.	1,305	1,843	537	3.5%
903999	Local Government, Excluding Education and Hospitals	8,305	9,081	776	0.9%
	90 Public	8,305	9,081	776	0.9%

Source: Applied Development Economics, based on EMSI Q4 QCEW and Non-QCEW Industry Employment Trends.
(Note: 2025p = projections)

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 Tulare 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 fluid milk manufacturing (NAICS 311511), roasted nuts and peanut butter (NAICS 311911), and other animal food manufacturing (NAICS 311119), which are all expected to each increase by at least 200 new jobs between 2015 and 2025. In addition, the agriculture related distribution (logistics) sector is projected to add about 1,800 jobs over the next ten years (Appendix Table 1).

The Health and Wellness cluster is projected to add almost 5,000 jobs by 2025 (Table 6). Of the 5,000 new jobs, almost 3,200 (63 percent) will occur in the Health Care – Delivery sub-cluster. Within this sub-cluster, the number of jobs in public and private hospitals (NAICS 622110, NAICS 903622, NAICS 902622) is projected to increase by almost 600 new jobs, with another 920 new jobs projected for nursing care facilities (NAICS 623110) and assisted living facilities (NAICS 623312) skilled nursing care facilities (NAICS 623110). Another growing Health and Wellness Cluster industry is services for the elderly and disabled (NAICS 624120), which is projected to increase by 1,400 jobs between 2015 and 2025.

Table 6 — Employment Projections by Industry Clusters: Tulare County

Industry Cluster	Employment		Change 15-25	Ann.Per. Chg.
	2015	2025p		
Total	125,564	143,870	18,305	1.4%
Energy	6,706	8,347	1,640	2.2%
Other Manufacturing	2,827	2,449	-378	-1.4%
Health and Wellness: Health Care Delivery	16,028	19,196	3,167	1.8%
Health and Wellness: All Others	4,646	6,473	1,827	3.4%
Total Health and Wellness	20,675	25,669	4,994	2.2%
Agriculture	60,077	64,313	4,235	0.7%
Water Flow Technology	1,191	1,357	166	1.3%
Logistics	6,463	7,935	1,472	2.1%
Retail	16,647	20,333	3,686	2.0%
Accommodations and Food Services	10,189	12,361	2,172	2.0%
Heavy Construction	789	1,107	318	3.4%

Source: Applied Development Economics, based on EMSI (Note: food processing manufacturing in AG Cluster)

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 dry, condensed, evaporated dairy products (NAICS 311514), and cheese manufacturing (NAICS 311513).

Table 7 — Industries within Various Clusters That are Expected to Decline Significantly Between 2015 and 2025: Tulare County

Cluster	NAICS	Industry	Employment		Change	CAGR
			2015	2025p	'15-'25	'15-'25
Ag and Food -- Processing	311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing	63	3	-60	-26.2%
Ag and Food -- Processing	311513	Cheese Manufacturing	1196	1126	-70	-0.6%
Ag and Food -- Production	111000	Crop Production	6946	5434	-1511	-2.4%
Ag and Food -- Support	332311	Prefabricated Metal Building and Component Manufacturing	143	89	-54	-4.6%
Ag and Food -- Support	444220	Nursery, Garden Center, and Farm Supply Stores	96	29	-67	-11.3%
Ag and Food -- Support	115114	Postharvest Crop Activities (except Cotton Ginning)	4318	4234	-84	-0.2%
Ag and Food -- Support	551114	Corporate, Subsidiary, and Regional Managing Offices	614	261	-352	-8.2%
Energy Cluster	221112	Fossil Fuel Electric Power Generation	182	72	-110	-8.9%
Energy Cluster	238160	Roofing Contractors	112	23	-89	-14.7%
Logistics --	492110	Couriers and Express Delivery Services	320	262	-58	-2.0%
Manufacturing -- Other	332311	Prefabricated Metal Building and Component Manufacturing	143	89	-54	-4.6%
Manufacturing -- Other	332911	Industrial Valve Manufacturing	58	3	-55	-25.7%
Manufacturing -- Other	327320	Ready-Mix Concrete Manufacturing	83	20	-63	-13.2%
Manufacturing -- Other	321991	Manufactured Home (Mobile Home) Manufacturing	82	0	-82	-100.0%
Manufacturing -- Other	323111	Commercial Printing (except Screen and Books)	175	88	-87	-6.6%
Manufacturing -- Other	326140	Polystyrene Foam Product Manufacturing	130	17	-113	-18.4%
Manufacturing -- Other	334412	Bare Printed Circuit Board Manufacturing	200	81	-118	-8.6%
Manufacturing -- Other	323117	Books Printing	181	13	-168	-23.3%

Source: Applied Development Economics, based on EMSI.

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. There is an anticipated 40,000 openings are projected between 2015 and 2025, of which approximately 18,750 would be due to new job growth. On annual basis, the 40,000 total openings amounts to an estimated 4,016 annual openings (Table 8).

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

Occupational Group	Annual Openings	Unemployed Whose Educational Attainment Matches Occupational Requirement	Part-Time Labor Force Whose Educational Attainment Matches Occupational Requirement
Total	4,016	6,040	24,122
53 Transportation and Material Moving	283	1,372	2,392
51 Production	104	234	576
49 Installation, Maintenance, and Repair	141	33	366
47 Construction and Extraction	99	918	1,044
45 Farming, Fishing, and Forestry	757	930	4,700
43 Office and Administrative Support	426	473	2,006
41 Sales and Related	401	835	1,493
39 Personal Care and Service	139	95	1,571
37 Building and Grounds Cleaning and Maintenance	102	96	381
35 Food Preparation and Serving Related	527	533	3,400
33 Protective Service	117	90	603
31 Healthcare Support	138	244	778
29 Healthcare Practitioners and Technical	181	26	622
27 Arts, Design, Entertainment, Sports, and Media	0	0	0
25 Education, Training, and Library	359	61	3,723
23 Legal	7	36	85
21 Community and Social Services	39	54	377
19 Life, Physical, and Social Science	14	0	6
17 Architecture and Engineering	1	0	0
15 Computer and Mathematical	7	9	0
13 Business and Financial Operations	47	0	0
11 Management	128	0	0

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

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:

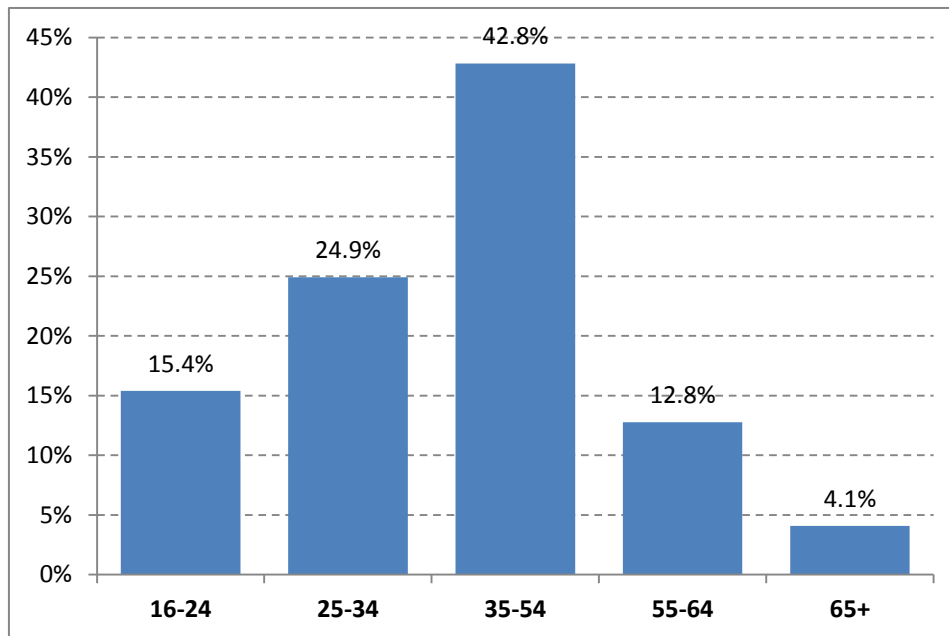
- Age
- Educational Attainment
- Employment status: full time, part time, unemployed
- Occupation

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 Tulare County is generally concentrated in the younger age groups, with slightly over 15 percent in the 16-24 age group, and almost 25 percent of the 25-34 age group (Figure 2). The prime working age group of 35-54 has 43 percent of the workforce, which is less concentrated on a year to year basis than the younger age groups. Workers over 55 constitute about 17 percent of the workforce and a number of employers report that impending retirements are a significant issue for them in terms of anticipated openings in the future.

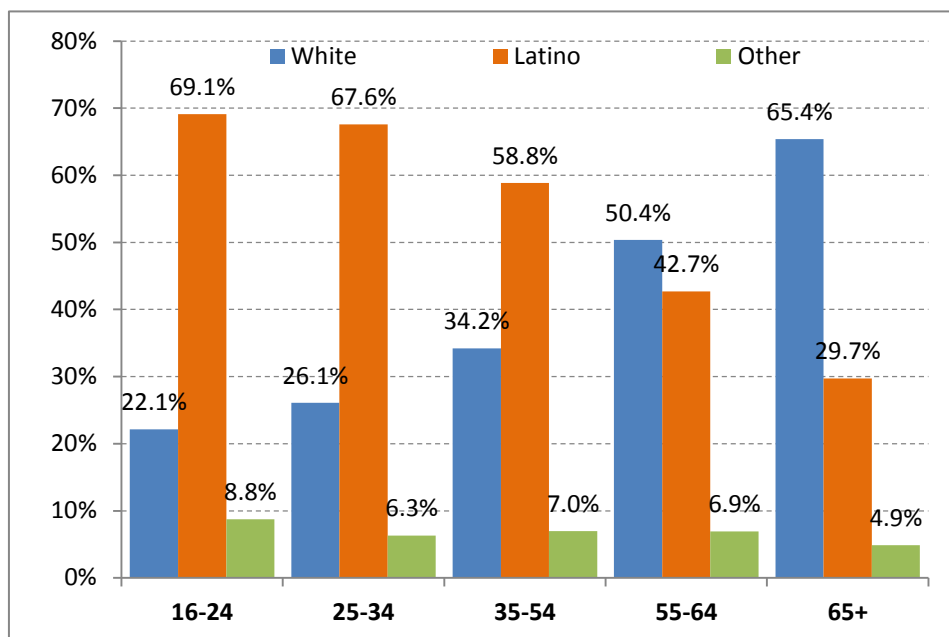
Figure 2 – Labor Force Age Distribution (Persons 16 and Over)



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

As shown in Figure 3, younger age groups tend to have a higher proportion of Latino workers while older age groups have higher percentages of white workers. Of the labor force between 16 and 24, almost 69 percent are Latino, while almost 22 percent White. Similarly for the 25-34 age cohort, 68 percent are Latino and 26 percent are White. As for the prime working-age 35 to 54 workforce,

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

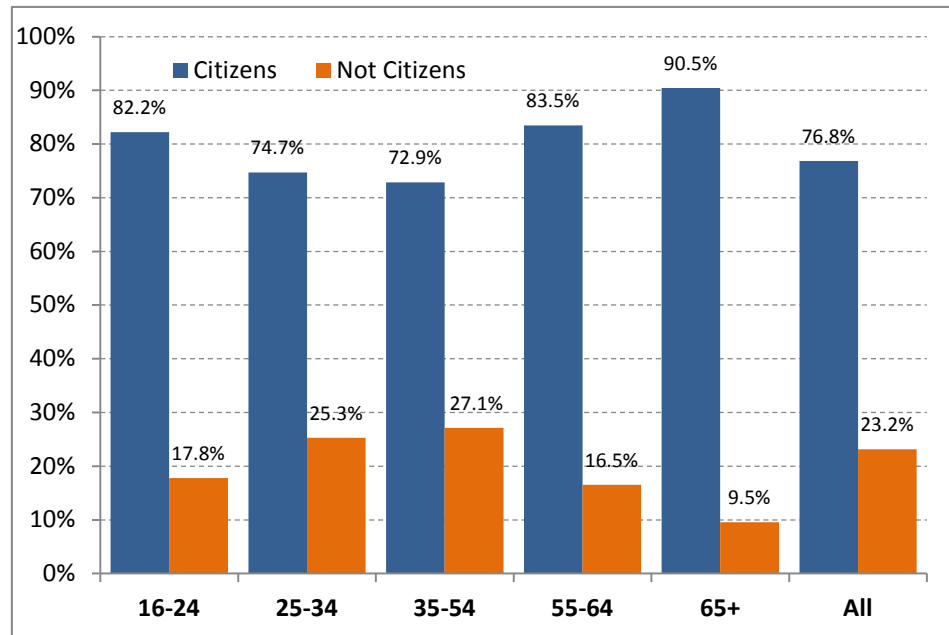


Source: ADE, Inc. based on US Census ACS 2012-2014 PUMS (from iPUMS)

Latinos again comprise a large share of this labor force at 59 percent, versus 34 percent for Whites. Whites are the largest share of persons in cohorts 55 and above.

Non-citizen workers constitute 23 percent of the workforce in Tulare County, though the rate varies with age (Figure 4). At 25 to 27 percent of the millennial (25 to 34) and prime working age (35 to 54) labor force, non-citizens are somewhat more concentrated in these two sub-populations relative to their overall concentration level, i.e. 23 percent. In contrast, non-citizens comprise almost 18 percent of the labor force between 16 and 24.

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



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

UNEMPLOYMENT

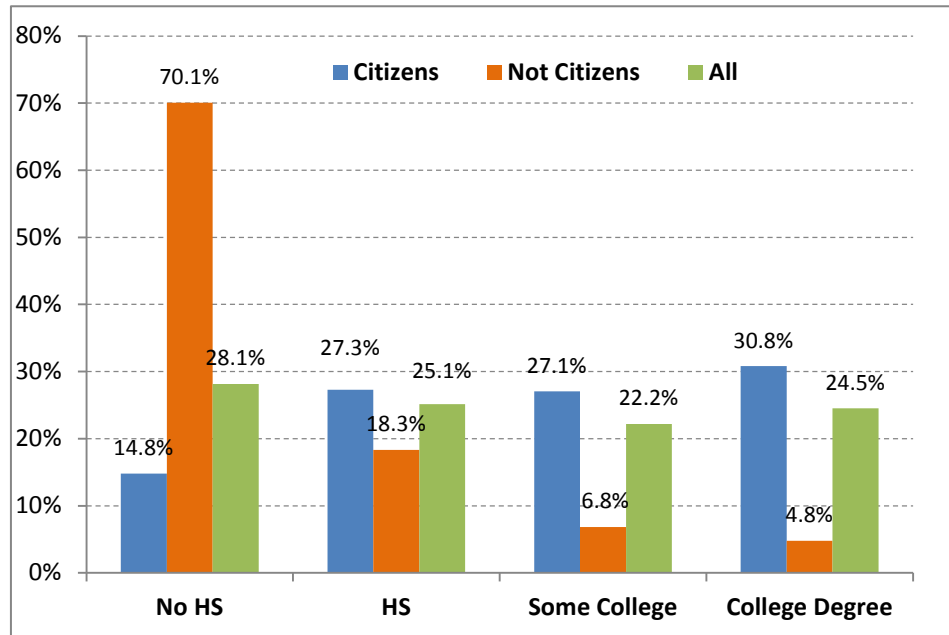
In Tulare County, almost 60 percent of the labor force is Latino, at 114,756 persons out of a labor force of 193,346 (see Table 9 at the end of the Chapter). Thirty-four percent is White. Unemployment for Latino workers 25 and older is 12.7 percent compared to 6.1 percent for Whites. Unemployment is 7.4 percent for workers in other racial and ethnic groups. Unemployment affects workers 25 and older with no college degree much more, at 11.7 percent, than those with a college degree (4.5 percent). Veterans' unemployment level is at 10.9 percent. Disabled workers have relatively high unemployment, at nearly 19.9 percent.

EDUCATIONAL ATTAINMENT

The Tulare County workforce exhibits comparable educational attainment to the rest of the San Joaquin Valley region. Among US citizens in the workforce, almost 15 percent do not have a high school diploma or GED and approximately 58 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, 70 percent of the non-citizens 25 and over in the labor force have not obtained a high school diploma or a GED. Slightly over 18 percent of non-citizens in the labor force have earned a high school diploma or equivalent, which is nine percentage points lower

than the rate for citizens (i.e. 27.3 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 93 percent Latino; almost 38 percent of all Latinos in the workforce have no high school diploma or GED. Whites and Others are almost five to six more likely than Latinos to have earned a college degree: almost five percent of the Latinos in the labor force have earned a college degree versus 31 percent for Whites and 25 percent for Others (Figure 6).

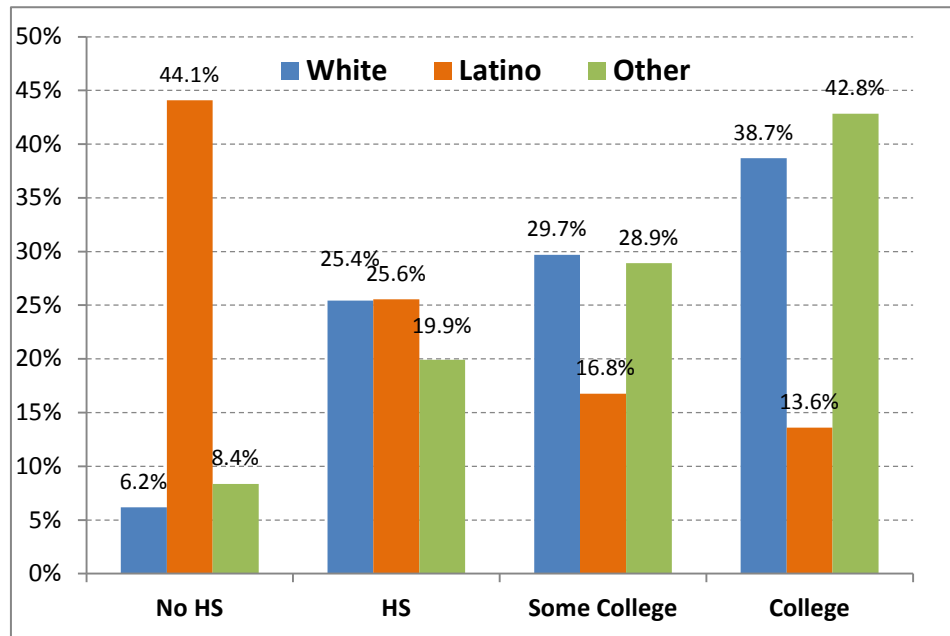
Figure 5 – Labor Force Educational Attainment by Citizenship Status (25 and over)



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

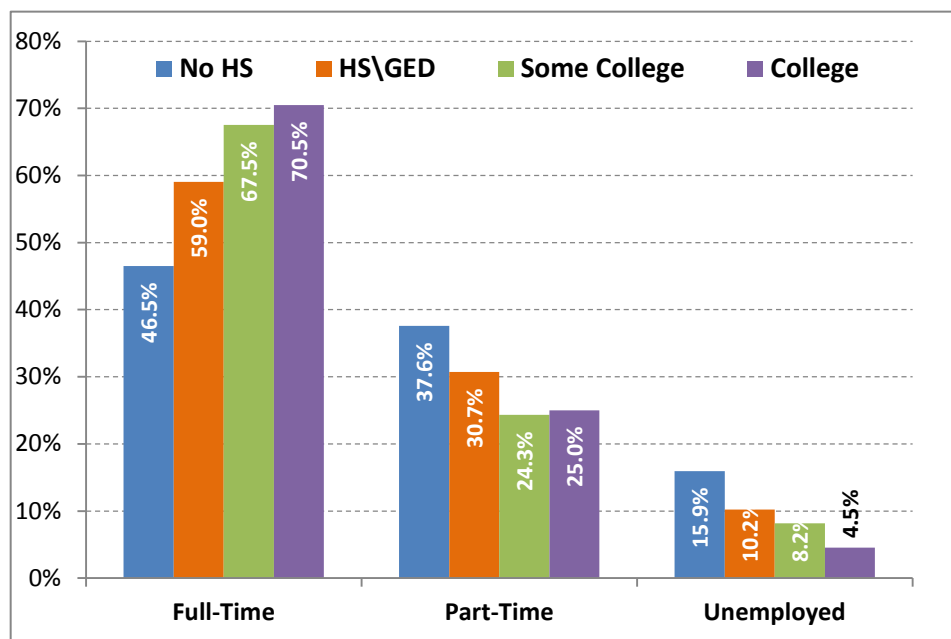
Educational attainment also affects employment status. Persons with no high school diploma exhibit rates of unemployment that more than double unemployment levels for persons with a college degree, or 15.9 percent versus 4.5 percent. Of the persons with a college degree, almost 71 percent work full-time, resulting in a full-time employment rate that is 24 percentage points greater than the rate for persons without a high school diploma (i.e. 70.5 percent versus 46.5 percent).

Figure 6 – Educational Attainment by Race/Ethnicity



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

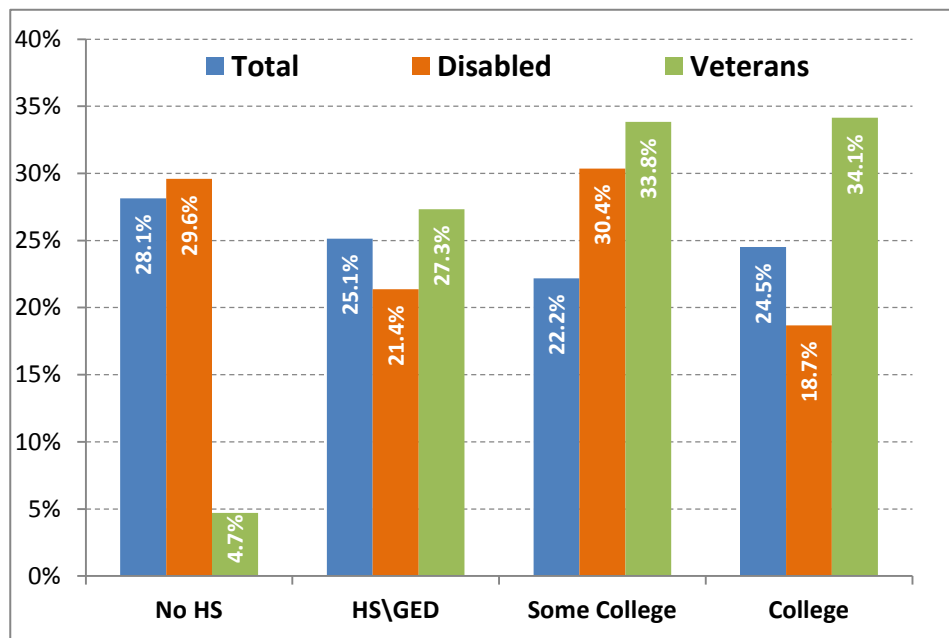
Figure 7 – Employment Status by Educational Attainment (25 and Over)



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

Veterans in Tulare County tend to have high levels of overall educational attainment, with almost five percent not achieving a high school diploma (Figure 8). For the workforce as a whole, 28 percent do not have a high school diploma or equivalent degree. Among disabled workers, however, nearly 30 percent do not have a high school diploma.

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

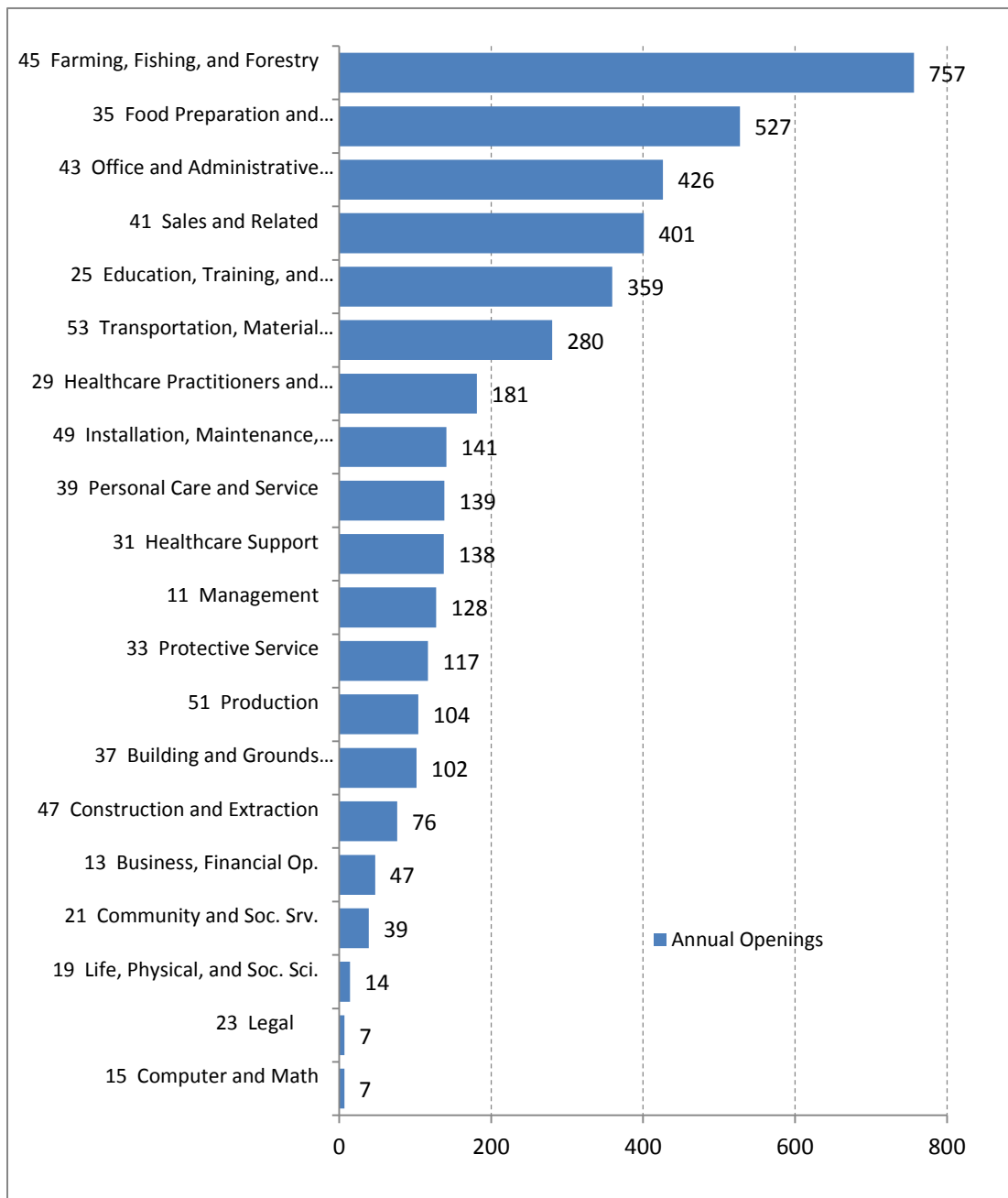


Source: ADE, Inc. based on US Census ACS 2012-2014 PUMS (from iPUMS)

UNDERUTILIZED WORKFORCE

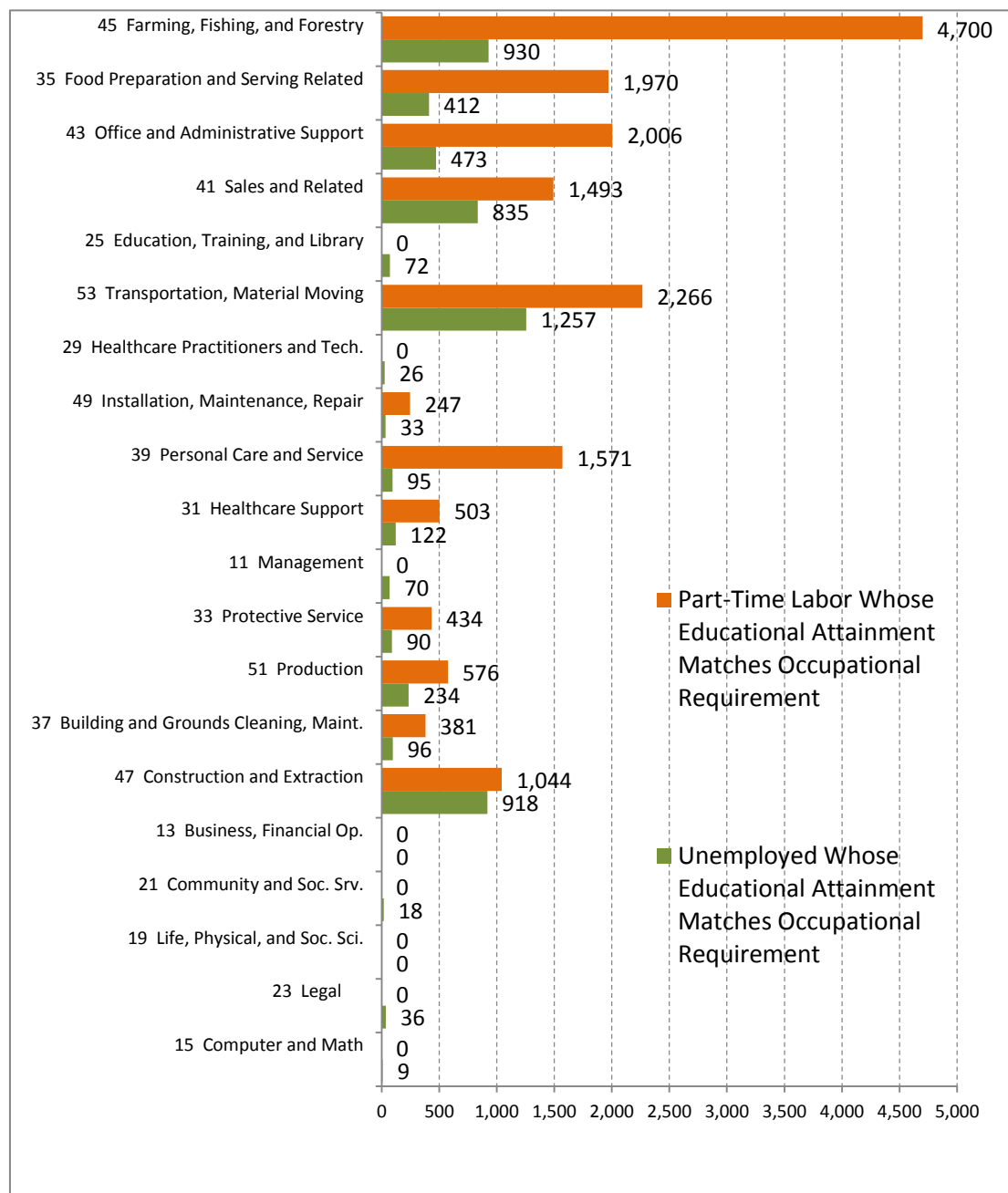
This part of report provides a focus on part time and unemployed labor force in terms of how their educational attainment and prior occupational background matches projected annual job openings. Figure 9 reproduces the major categories of job openings listed earlier in Table 8. The largest numbers of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

Figure 9 – Annual Openings by Major Occupational Groups



Source: Applied Development Economics, based on EMSI.

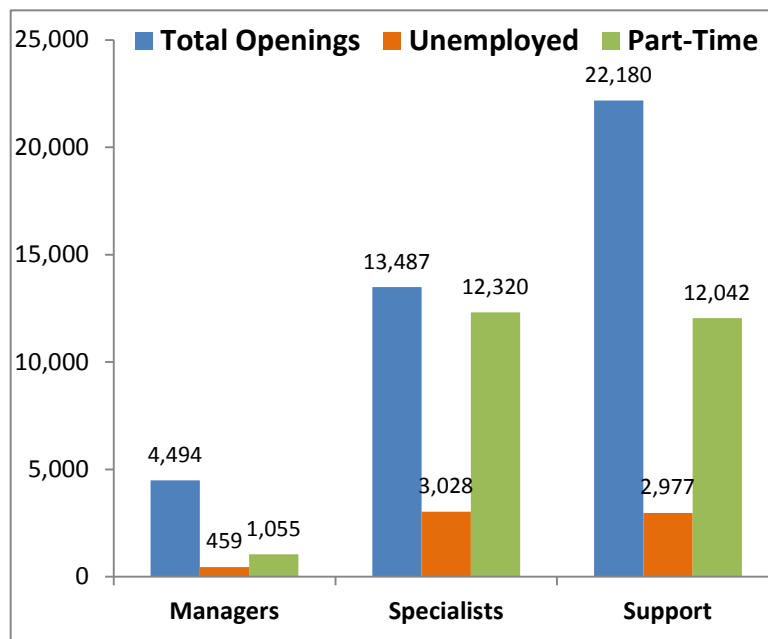
Figure 10 - Number of Unemployed and Part-Time Labor Force by Major Occupational Group



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

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

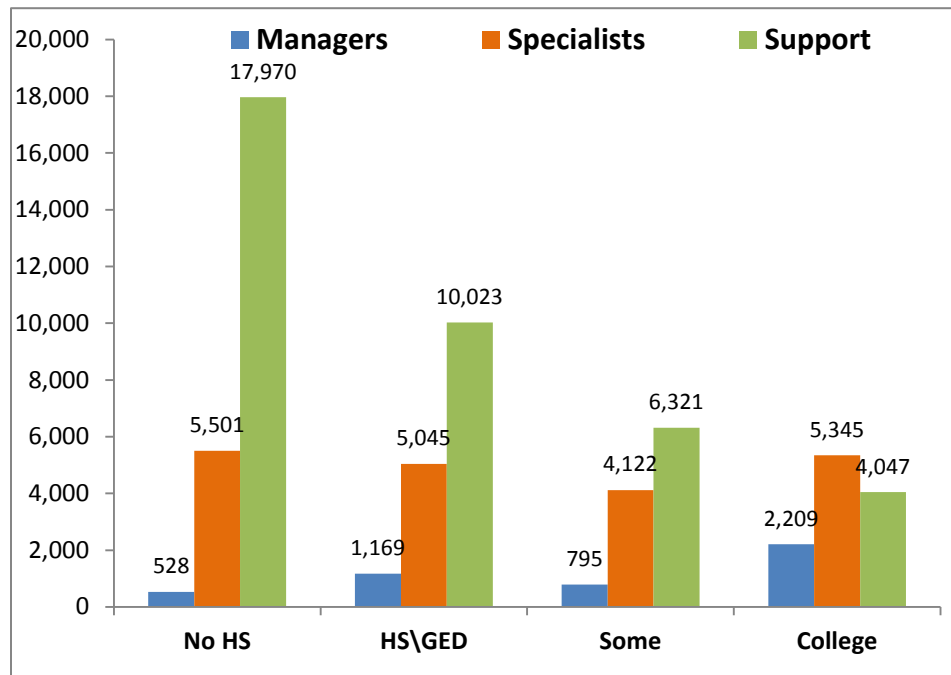
Figure 11 – Part Time and Unemployment Workers by Occupational Class Compared To Total Openings: Only Persons Whose Educational Attainment Commensurate With Opening Position: Tulare County



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

Figure 12 shows the educational level for the unemployed and part time workforce, categorized by occupational background. This figure tracks all unemployed and part-time workers, not just those who minimally qualify for the annually open positions. There are relatively few managers who have not achieved a high school diploma and the greatest number do have a high school diploma; of the 23,999 persons with no high school diploma, 528 (2 percent) are managers. Interestingly, the 528 managers with no high school diploma represent 11 percent of all managers (528 out of 4,701), 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 (5,345 out of 20,013), or have had some college courses (4,122). Almost 4,047 workers who most recently worked in support positions also have a college degree.

Figure 12 – Part Time and Unemployed Workers by Educational Attainment and Occupational Class (Persons 25 and Over, and all occupations): Tulare County



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

Table 9 — Summary of Overall Labor Force Trends For Select Demographic Categories: Tulare County

	Labor Force Trends By Race and Ethnicity (Persons 16 and Over)	Labor Force Trends By Gender (Persons 16 and Over)	Labor Force Trends By Citizenship Status (Persons 16 and Over)	Labor Force Trends By Educational Attainment (Persons 25 and Over)	Labor Force Trends By Veteran Status (Persons 16 and Over)	Labor Force Trends By Disability Status (Persons 16 and Over)
	White	Women	Citizens	Persons with College Degree	Veterans	Persons with at least One Disability
Labor Force	65,086	84,492	148,578	40,121	6,909	12,071
Unemployed	4,664	10,650	15,808	1,817	750	2,403
Unemployment Rate	7.2%	12.6%	10.6%	4.5%	10.9%	19.9%
	Latino	Men	Not Citizens	Persons with No College Degree	Not Veterans	Persons with No Reported Disability
Labor Force	114,756	108,854	44,768	123,463	186,037	181,275
Unemployed	16,619	11,927	6,768	14,502	21,768	20,174
Unemployment Rate	14.5%	11.0%	15.1%	11.7%	11.7%	11.1%
	Other				Veteran Status Unknown	
Labor Force	13,504				401	
Unemployed	1,294				59	
Unemployment Rate	9.6%				14.7%	
	Total	Total		Total	Total	Total
Labor Force	193,346	193,346	193,346	163,584	193,346	193,346
Unemployed	22,577	22,577	22,577	16,320	22,577	22,577
Unemployment Rate	11.7%	11.7%	11.7%	10.0%	11.7%	11.7%

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

Table 10 – Population by Race, Age, and Educational Attainment: Tulare County

	0-15	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	129,152	29,914	35,254	31,689	31,988	108,366	42,673	46,244	455,280
White	23,866	6,691	7,840	8,079	8,162	36,227	21,447	28,190	140,502
Did not earn HSD\GED	19,408	4,598	1,126	563	297	3,376	2,398	5,397	37,163
HSD\GED	0	1,029	1,872	2,122	3,194	9,864	5,123	8,961	32,165
Some college -- not attending	0	223	1,820	1,363	2,420	9,964	6,045	6,235	28,070
Some college -- attending	0	841	1,776	1,028	253	602	85	3	4,588
AA	0	0	723	681	507	3,569	2,719	2,543	10,743
BA+	0	0	523	2,322	1,490	8,851	5,077	5,051	23,314
NA	4,458	0	0	0	0	0	0	0	4,458
Latino	97,642	20,640	24,908	21,747	21,497	64,352	18,167	14,865	283,818
Did not earn HSD\GED	80,735	13,213	5,965	6,897	8,668	31,958	10,406	10,483	168,325
HSD\GED	0	4,644	8,143	7,177	6,371	15,153	2,944	2,251	46,684
Some college -- not attending	0	598	2,766	3,529	3,034	9,623	2,751	1,460	23,761
Some college -- attending	155	2,116	6,092	804	927	809	0	0	10,903
AA	0	69	1,224	1,449	1,220	2,628	1,210	360	8,160
BA+	0	0	718	1,891	1,276	4,181	855	311	9,233
NA	16,751	0	0	0	0	0	0	0	16,751
Other	7,644	2,583	2,506	1,863	2,329	7,787	3,059	3,188	30,960
Did not earn HSD\GED	6,273	1,490	208	257	400	1,210	457	1,342	11,638
HSD\GED	0	629	945	455	481	1,610	580	646	5,345
Some college -- not attending	0	263	384	341	801	2,041	874	437	5,141
Some college -- attending	0	201	596	164	0	117	12	10	1,100
AA	0	0	205	152	445	837	240	68	1,947
BA+	0	0	169	495	203	1,972	896	685	4,419
NA	1,371	0	0	0	0	0	0	0	1,371

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	7,113	22,649	24,363	23,821	82,797	24,709	7,894	163,587	193,346
White	1,473	5,118	6,205	6,369	28,316	12,443	5,162	58,497	65,086
Did not earn HSD\GED	NA	NA	285	172	1,645	950	570	3,622	NA
HSD\GED	NA	NA	1,499	2,103	7,117	2,831	1,328	14,878	NA
Some college -- not attending	NA	NA	1,173	2,136	8,164	3,152	1,342	15,967	NA
Some college -- attending	NA	NA	775	86	534	0	0	1,395	NA
AA	NA	NA	591	443	2,811	1,651	640	6,136	NA
BA+	NA	NA	1,883	1,429	8,045	3,859	1,283	16,499	NA
Latino	4,884	15,683	16,778	15,793	48,719	10,552	2,347	94,191	114,756
Did not earn HSD\GED	NA	NA	4,408	6,360	23,927	5,289	1,531	41,515	NA
HSD\GED	NA	NA	5,931	4,534	11,275	1,888	442	24,070	NA
Some college -- not attending	NA	NA	2,945	2,561	7,051	1,890	209	14,656	NA
Some college -- attending	NA	NA	458	278	394	0	0	1,130	NA
AA	NA	NA	1,352	953	2,193	749	115	5,362	NA
BA+	NA	NA	1,685	1,107	3,880	736	50	7,458	NA
Other	756	1,849	1,380	1,659	5,762	1,714	385	10,899	13,504
Did not earn HSD\GED	NA	NA	101	153	569	66	21	910	NA
HSD\GED	NA	NA	318	310	1,190	241	112	2,171	NA
Some college -- not attending	NA	NA	299	548	1,591	386	91	2,915	NA
Some college -- attending	NA	NA	164	0	49	12	10	235	NA
AA	NA	NA	152	445	620	198	42	1,457	NA
BA+	NA	NA	347	203	1,742	810	109	3,211	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	4,403	9,805	8,968	7,249	22,421	6,370	3,788	48,798	63,005
White	1,131	2,411	2,947	1,287	6,059	2,970	2,439	15,705	19,244
Did not earn HSD\GED	NA	NA	0	93	323	181	205	802	NA
HSD\GED	NA	NA	654	380	2,004	858	738	4,634	NA
Some college -- not attending	NA	NA	403	311	1,595	715	591	3,615	NA
Some college -- attending	NA	NA	603	42	117	0	0	762	NA
AA	NA	NA	178	134	659	496	218	1,685	NA
BA+	NA	NA	1,109	328	1,362	720	688	4,207	NA
Latino	2,662	6,598	5,540	5,455	14,746	2,993	1,169	29,901	39,163
Did not earn HSD\GED	NA	NA	1,519	3,209	8,688	1,832	744	15,992	NA
HSD\GED	NA	NA	2,178	1,294	3,256	406	201	7,335	NA
Some college -- not attending	NA	NA	937	406	1,637	336	59	3,375	NA
Some college -- attending	NA	NA	249	114	91	0	0	454	NA
AA	NA	NA	340	301	267	291	115	1,314	NA
BA+	NA	NA	317	131	806	127	50	1,431	NA
Other	610	797	482	506	1,616	407	180	3,192	4,598
Did not earn HSD\GED	NA	NA	52	98	276	64	21	511	NA
HSD\GED	NA	NA	225	26	304	80	29	664	NA
Some college -- not attending	NA	NA	0	241	216	101	16	574	NA
Some college -- attending	NA	NA	0	0	36	12	0	48	NA
AA	NA	NA	0	120	208	9	32	369	NA
BA+	NA	NA	204	22	577	141	82	1,026	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	2,274	3,983	2,646	1,817	8,994	2,078	785	16,320	22,577
White	341	757	353	290	2,077	571	274	3,566	4,664
Did not earn HSD\GED	NA	NA	105	11	366	57	5	544	NA
HSD\GED	NA	NA	5	183	796	168	49	1,201	NA
Some college -- not attending	NA	NA	73	4	507	143	129	856	NA
Some college -- attending	NA	NA	111	20	45	0	0	176	NA
AA	NA	NA	0	21	194	60	26	301	NA
BA+	NA	NA	59	52	168	144	65	488	NA
Latino	1,795	2,873	2,101	1,480	6,477	1,392	501	11,950	16,619
Did not earn HSD\GED	NA	NA	646	758	4,106	868	347	6,725	NA
HSD\GED	NA	NA	845	514	1,123	180	143	2,805	NA
Some college -- not attending	NA	NA	289	88	733	264	11	1,385	NA
Some college -- attending	NA	NA	71	54	156	0	0	281	NA
AA	NA	NA	159	66	126	51	0	402	NA
BA+	NA	NA	90	0	233	29	0	352	NA
Other	137	353	192	47	440	115	10	804	1,294
Did not earn HSD\GED	NA	NA	0	0	65	0	0	65	NA
HSD\GED	NA	NA	55	21	128	0	0	204	NA
Some college -- not attending	NA	NA	137	26	85	4	0	252	NA
Some college -- attending	NA	NA	0	0	0	0	10	10	NA
AA	NA	NA	0	0	88	23	0	111	NA
BA+	NA	NA	0	0	74	88	0	162	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	32.0%	17.6%	10.9%	7.6%	10.9%	8.4%	9.9%	10.0%	11.7%
White	23.2%	14.8%	5.7%	4.6%	7.3%	4.6%	5.3%	6.1%	7.2%
Did not earn HSD\GED	NA	NA	36.8%	6.4%	22.2%	6.0%	0.9%	15.0%	NA
HSD\GED	NA	NA	0.3%	8.7%	11.2%	5.9%	3.7%	8.1%	NA
Some college -- not attending	NA	NA	6.2%	0.2%	6.2%	4.5%	9.6%	5.4%	NA
Some college -- attending	NA	NA	14.3%	23.3%	8.4%	NA	NA	12.6%	NA
AA	NA	NA	0.0%	4.7%	6.9%	3.6%	4.1%	4.9%	NA
BA+	NA	NA	3.1%	3.6%	2.1%	3.7%	5.1%	3.0%	NA
Latino	36.8%	18.3%	12.5%	9.4%	13.3%	13.2%	21.3%	12.7%	14.5%
Did not earn HSD\GED	NA	NA	14.7%	11.9%	17.2%	16.4%	22.7%	16.2%	NA
HSD\GED	NA	NA	14.2%	11.3%	10.0%	9.5%	32.4%	11.7%	NA
Some college -- not attending	NA	NA	9.8%	3.4%	10.4%	14.0%	5.3%	9.5%	NA
Some college -- attending	NA	NA	15.5%	19.4%	39.6%	NA	NA	24.9%	NA
AA	NA	NA	11.8%	6.9%	5.7%	6.8%	0.0%	7.5%	NA
BA+	NA	NA	5.3%	0.0%	6.0%	3.9%	0.0%	4.7%	NA
Other	18.1%	19.1%	13.9%	2.8%	7.6%	6.7%	2.6%	7.4%	9.6%
Did not earn HSD\GED	NA	NA	0.0%	0.0%	11.4%	0.0%	0.0%	7.1%	NA
HSD\GED	NA	NA	17.3%	6.8%	10.8%	0.0%	0.0%	9.4%	NA
Some college -- not attending	NA	NA	45.8%	4.7%	5.3%	1.0%	0.0%	8.6%	NA
Some college -- attending	NA	NA	0.0%	NA	0.0%	0.0%	100.0%	4.3%	NA
AA	NA	NA	0.0%	0.0%	14.2%	11.6%	0.0%	7.6%	NA
BA+	NA	NA	0.0%	0.0%	4.2%	10.9%	0.0%	5.0%	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	7,113	22,649	24,363	23,821	82,797	24,709	7,894	163,584	193,346
Citizen	6,102	18,372	18,758	17,238	60,338	20,630	7,141	124,105	148,578
Did not earn HSD\GED	NA	NA	1,807	2,134	9,683	3,161	1,607	18,392	NA
HSD\GED	NA	NA	6,089	5,444	16,103	4,514	1,734	33,884	NA
Some college -- not attending	NA	NA	3,749	5,115	15,496	5,060	1,603	31,023	NA
Some college -- attending	NA	NA	1,247	345	963	12	10	2,577	NA
AA	NA	NA	1,997	1,660	5,363	2,598	797	12,415	NA
BA+	NA	NA	3,869	2,539	12,731	5,286	1,390	25,814	NA
Not Citizen	1,011	4,278	5,605	6,583	22,459	4,079	753	39,479	44,768
Did not earn HSD\GED	NA	NA	2,986	4,552	16,458	3,145	515	27,656	NA
HSD\GED	NA	NA	1,659	1,503	3,478	446	148	7,235	NA
Some college -- not attending	NA	NA	668	129	1,310	368	39	2,514	NA
Some college -- attending	NA	NA	150	19	14	0	0	183	NA
AA	NA	NA	97	181	261	0	0	539	NA
BA+	NA	NA	45	200	937	120	52	1,353	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	2,274	3,983	2,646	1,817	8,994	2,078	785	16,320	22,577
Citizen	1,834	3,451	2,180	1,143	5,367	1,287	547	10,524	15,808
Did not earn HSD\GED	720	669	487	219	1,765	215	236	2,922	
HSD\GED	615	1,837	717	593	1,516	266	70	3,163	
Some college -- not attending	185	407	485	118	1,091	410	140	2,244	
Some college -- attending	251	339	183	74	202	0	10	468	
AA	63	139	159	87	336	134	26	743	
BA+	0	60	149	52	457	262	65	984	
Not Citizen	440	532	466	674	3,627	791	238	5,796	6,768
Did not earn HSD\GED	134	283	264	549	2,772	709	116	4,411	
HSD\GED	224	161	187	124	531	82	122	1,046	
Some college -- not attending	0	0	15	0	234	0	0	249	
Some college -- attending	82	88	0	0	0	0	0	0	
AA	0	0	0	0	72	0	0	72	
BA+	0	0	0	0	19	0	0	19	

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	32.0%	17.6%	10.9%	7.6%	10.9%	8.4%	9.9%	10.0%	11.7%
Citizen	30.1%	18.8%	11.6%	6.6%	8.9%	6.2%	7.7%	8.5%	10.6%
Did not earn HSD\GED	NA	NA	26.9%	10.3%	18.2%	6.8%	14.7%	15.9%	NA
HSD\GED	NA	NA	11.8%	10.9%	9.4%	5.9%	4.0%	9.3%	NA
Some college -- not attending	NA	NA	12.9%	2.3%	7.0%	8.1%	8.7%	7.2%	NA
Some college -- attending	NA	NA	14.6%	21.4%	20.9%	0.0%	100.0%	18.2%	NA
AA	NA	NA	8.0%	5.3%	6.3%	5.2%	3.3%	6.0%	NA
BA+	NA	NA	3.9%	2.0%	3.6%	5.0%	4.7%	3.8%	NA
Not Citizen	43.6%	12.4%	8.3%	10.2%	16.2%	19.4%	31.7%	14.7%	15.1%
Did not earn HSD\GED	NA	NA	8.8%	12.1%	16.8%	22.6%	22.5%	15.9%	NA
HSD\GED	NA	NA	11.3%	8.3%	15.3%	18.3%	82.7%	14.5%	NA
Some college -- not attending	NA	NA	2.2%	0.0%	17.9%	0.0%	0.0%	9.9%	NA
Some college -- attending	NA	NA	0.0%	0.0%	0.0%	NA	NA	0.0%	NA
AA	NA	NA	0.0%	0.0%	27.4%	NA	NA	13.3%	NA
BA+	NA	NA	0.0%	0.0%	2.0%	0.0%	0.0%	1.4%	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	7,114	22,650	24,363	23,822	82,797	24,709	7,894	163,585	193,349
No Reported Disability	7,010	21,539	23,561	22,804	77,817	22,249	6,296	152,727	181,276
Did not earn HSD\GED	NA	NA	4,600	6,638	24,425	5,589	1,584	42,836	NA
HSD\GED	NA	NA	7,384	6,640	18,741	4,411	1,621	38,797	NA
Some college -- not attending	NA	NA	4,299	4,615	15,429	4,890	1,212	30,445	NA
Some college -- attending	NA	NA	1,324	364	866	0	0	2,554	NA
AA	NA	NA	2,040	1,841	5,052	2,215	663	11,811	NA
BA+	NA	NA	3,914	2,706	13,304	5,144	1,216	26,284	NA
At Least One Disability	104	1,111	802	1,018	4,980	2,460	1,598	10,858	12,073
Did not earn HSD\GED	NA	NA	193	48	1,716	717	538	3,212	NA
HSD\GED	NA	NA	364	307	841	549	261	2,322	NA
Some college -- not attending	NA	NA	117	630	1,376	538	430	3,091	NA
Some college -- attending	NA	NA	73	0	111	12	10	206	NA
AA	NA	NA	55	0	572	383	134	1,144	NA
BA+	NA	NA	0	33	364	261	225	883	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	2,275	3,983	2,646	1,816	8,994	2,078	785	16,319	22,577
No Reported Disability	2,180	3,656	2,439	1,746	8,012	1,733	408	14,338	20,174
Did not earn HSD\GED	NA	NA	751	768	3,928	760	143	6,350	NA
HSD\GED	NA	NA	822	647	1,884	320	157	3,830	NA
Some college -- not attending	NA	NA	400	118	1,175	371	45	2,109	NA
Some college -- attending	NA	NA	158	74	188	0	0	420	NA
AA	NA	NA	159	87	408	20	26	700	NA
BA+	NA	NA	149	52	429	262	37	929	NA
At Least One Disability	95	327	207	70	982	345	377	1,981	2,403
Did not earn HSD\GED	NA	NA	0	0	609	164	209	982	NA
HSD\GED	NA	NA	82	70	163	28	35	378	NA
Some college -- not attending	NA	NA	100	0	150	39	95	384	NA
Some college -- attending	NA	NA	25	0	14	0	10	49	NA
AA	NA	NA	0	0	0	114	0	114	NA
BA+	NA	NA	0	0	46	0	28	74	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	32.0%	17.6%	10.9%	7.6%	10.9%	8.4%	9.9%	10.0%	11.7%
No Reported Disability	31.1%	17.0%	10.4%	7.7%	10.3%	7.8%	6.5%	9.4%	11.1%
Did not earn HSD\GED	NA	NA	16.3%	11.6%	16.1%	13.6%	9.0%	14.8%	NA
HSD\GED	NA	NA	11.1%	9.7%	10.1%	7.3%	9.7%	9.9%	NA
Some college -- not attending	NA	NA	9.3%	2.6%	7.6%	7.6%	3.7%	6.9%	NA
Some college -- attending	NA	NA	11.9%	20.3%	21.7%	NA	NA	16.4%	NA
AA	NA	NA	7.8%	4.7%	8.1%	0.9%	3.9%	5.9%	NA
BA+	NA	NA	3.8%	1.9%	3.2%	5.1%	3.0%	3.5%	NA
At Least One Disability	91.3%	29.4%	25.8%	6.9%	19.7%	14.0%	23.6%	18.2%	19.9%
Did not earn HSD\GED	NA	NA	0.0%	0.0%	35.5%	22.9%	38.8%	30.6%	NA
HSD\GED	NA	NA	22.5%	22.8%	19.4%	5.1%	13.4%	16.3%	NA
Some college -- not attending	NA	NA	85.5%	0.0%	10.9%	7.2%	22.1%	12.4%	NA
Some college -- attending	NA	NA	34.2%	NA	12.6%	0.0%	100.0%	23.8%	NA
AA	NA	NA	0.0%	NA	0.0%	29.8%	0.0%	10.0%	NA
BA+	NA	NA	NA	0.0%	12.6%	0.0%	12.4%	8.4%	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	7,114	22,651	24,363	23,820	82,798	24,708	7,894	163,583	193,348
Not Veterans	7,114	22,448	24,050	23,143	79,995	23,146	6,542	156,876	186,438
Did not earn HSD\GED	NA	NA	4,794	6,686	26,113	6,208	1,932	45,733	NA
HSD\GED	NA	NA	7,683	6,884	18,596	4,513	1,609	39,285	NA
Some college -- not attending	NA	NA	4,318	4,809	16,048	4,957	1,274	31,406	NA
Some college -- attending	NA	NA	1,335	305	959	12	10	2,621	NA
AA	NA	NA	2,006	1,720	5,137	2,361	684	11,908	NA
BA+	NA	NA	3,914	2,739	13,142	5,095	1,033	25,923	NA
Veterans	0	203	313	677	2,803	1,562	1,352	6,707	6,910
Did not earn HSD\GED	NA	NA	0	0	28	97	190	315	NA
HSD\GED	NA	NA	65	63	986	447	273	1,834	NA
Some college -- not attending	NA	NA	98	435	758	471	368	2,130	NA
Some college -- attending	NA	NA	62	59	18	0	0	139	NA
AA	NA	NA	88	120	487	237	113	1,045	NA
BA+	NA	NA	0	0	526	310	408	1,244	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	2,274	3,984	2,647	1,816	8,995	2,079	786	16,323	22,581
Not Veterans	2,274	3,821	2,557	1,781	8,765	1,913	718	15,734	21,829
Did not earn HSD\GED	NA	NA	751	768	4,516	913	352	7,300	NA
HSD\GED	NA	NA	877	717	1,983	294	162	4,033	NA
Some college -- not attending	NA	NA	500	118	1,221	393	140	2,372	NA
Some college -- attending	NA	NA	121	39	202	0	10	372	NA
AA	NA	NA	159	87	408	134	26	814	NA
BA+	NA	NA	149	52	435	179	28	843	NA
Veterans	0	163	90	35	230	166	68	589	752
Did not earn HSD\GED	NA	NA	0	0	21	12	0	33	NA
HSD\GED	NA	NA	28	0	64	54	31	177	NA
Some college -- not attending	NA	NA	0	0	104	17	0	121	NA
Some college -- attending	NA	NA	62	35	0	0	0	97	NA
AA	NA	NA	0	0	0	0	0	0	NA
BA+	NA	NA	0	0	41	83	37	161	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	32.0%	17.6%	10.9%	7.6%	10.9%	8.4%	10.0%	10.0%	11.7%
Not Veterans	32.0%	17.0%	10.6%	7.7%	11.0%	8.3%	11.0%	10.0%	11.7%
Did not earn HSD\GED	NA	NA	15.7%	11.5%	17.3%	14.7%	18.2%	16.0%	NA
HSD\GED	NA	NA	11.4%	10.4%	10.7%	6.5%	10.1%	10.3%	NA
Some college -- not attending	NA	NA	11.6%	2.5%	7.6%	7.9%	11.0%	7.6%	NA
Some college -- attending	NA	NA	9.1%	12.8%	21.1%	0.0%	100.0%	14.2%	NA
AA	NA	NA	7.9%	5.1%	7.9%	5.7%	3.8%	6.8%	NA
BA+	NA	NA	3.8%	1.9%	3.3%	3.5%	2.7%	3.3%	NA
Veterans	NA	80.3%	28.8%	5.2%	8.2%	10.6%	5.0%	8.8%	10.9%
Did not earn HSD\GED	NA	NA	NA	NA	75.0%	12.4%	0.0%	10.5%	NA
HSD\GED	NA	NA	43.1%	0.0%	6.5%	12.1%	11.4%	9.7%	NA
Some college -- not attending	NA	NA	0.0%	0.0%	13.7%	3.6%	0.0%	5.7%	NA
Some college -- attending	NA	NA	100.0%	59.3%	0.0%	NA	NA	69.8%	NA
AA	NA	NA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA
BA+	NA	NA	NA	NA	7.8%	26.8%	9.1%	12.9%	NA

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

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

	College Degree				No College Degree			
	Full-Time	Part-Time	Unemp	UER	Full-Time	Part-Time	Unemployed	UER
Total	29,556	10,714	2,079	4.9%	78,209	52,291	20,498	13.6%
11 Agriculture	966	364	99	8.4%	13,974	18,770	5,786	18.6%
21 Mining	68	0	0	0.0%	129	25	0	6.7%
22 Utilities	155	0	0	0.0%	781	83	0	2.5%
23 Construction	901	336	0	4.4%	5,363	1,958	1,322	13.2%
31 Manufacturing	1,824	681	79	8.5%	9,699	1,885	1,192	13.6%
42 Wholesale	810	50	51	2.3%	4,561	1,844	964	10.7%
43 Retail	1,952	985	323	12.1%	8,696	6,021	1,835	10.8%
48 Transportation	120	181	0	5.8%	3,182	722	308	8.6%
49 Warehousing	176	0	0	9.1%	597	460	169	12.7%
51 Information	339	64	41	8.6%	546	283	45	11.8%
52 Finance	1,209	251	87	5.8%	2,102	701	135	15.4%
53 Real Estate	410	402	19	7.9%	903	397	110	15.0%
54 Professional Technical	1,418	413	58	4.0%	945	411	239	12.6%
55 MCE	0	0	0	0.0%	13	19	0	0.0%
56 Admin Support	708	399	242	20.3%	3,292	2,447	1,395	16.9%
56 Waste Mgt	13	0	0	0.0%	228	20	22	3.5%
61 Education	6,293	3,383	156	4.7%	2,351	3,193	238	11.1%
62 Health	6,689	2,205	212	5.2%	8,034	3,603	924	13.6%
71 Arts, Entertainmnt, etc	176	115	0	8.2%	1,319	881	162	17.8%
72 Accommodations	147	61	0	9.3%	646	193	30	9.8%
72 Food Services	430	190	0	11.3%	3,602	4,386	822	13.5%
81 Other Services	894	415	203	4.4%	2,600	2,665	455	9.2%
92 Public Sector	3,339	217	170	6.9%	4,248	1,185	124	7.1%
Military	518	0	0	7.1%	397	140	305	4.1%
Long-Term Unemployed			338				3,915	

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

CONCLUSION

At 1.1 percent a year, jobs in Tulare County is expected to grow modestly from now to 2025, although analysts project a number of sectors (Health, Logistics, Professional, Scientifics and Technical Services, Retail, Food Services 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

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

Ag and Food -- Distribution Industries	NAICS	Employment		Change	Ann. Growth Rate
		2015	2025p	2015-2025	
Total		9,464	11,260	1,796	1.8%
General Warehousing and Storage	493110	2,190	2,809	619	2.5%
Supermarkets and Other Grocery (except Convenience) Stores	445110	2,490	2,813	323	1.2%
General Freight Trucking, Long-Distance, Truckload	484121	691	955	265	3.3%
Farm Supplies Merchant Wholesalers	424910	489	683	194	3.4%
Specialized Freight (except Used Goods) Trucking, Local	484220	804	904	99	1.2%
Convenience Stores	445120	182	258	76	3.5%
General Freight Trucking, Local	484110	631	701	71	1.1%
Meat Markets	445210	98	163	64	5.2%
General Freight Trucking, Long-Distance, Less Than Truckload	484122	152	208	56	3.2%
Other Grocery and Related Products Merchant Wholesalers	424490	113	158	45	3.4%
Nonscheduled Chartered Passenger Air Transportation	481211	75	110	35	3.9%
Wine and Distilled Alcoholic Beverage Merchant Wholesalers	424820	31	59	28	6.6%
Poultry and Poultry Product Merchant Wholesalers	424440	35	58	23	5.2%
Dairy Product (except Dried or Canned) Merchant Wholesalers	424430	46	67	21	3.8%
Rail transportation	482110	101	116	15	1.4%
Beer, Wine, and Liquor Stores	445310	61	76	15	2.1%
Confectionery and Nut Stores	445292	28	43	14	4.1%
Baked Goods Stores	445291	18	32	14	6.0%
Freight Transportation Arrangement	488510	58	72	14	2.1%
Beer and Ale Merchant Wholesalers	424810	100	110	9	0.9%
Other Warehousing and Storage	493190	35	44	9	2.3%
Refrigerated Warehousing and Storage	493120	257	261	5	0.2%
Support Activities for Rail Transportation	488210	3	3	0	0.0%
Other Farm Product Raw Material Merchant Wholesalers	424590	31	31	0	-0.2%

Ag and Food -- Distribution		Employment		Change	Ann. Growth Rate
Industries	NAICS	2015	2025p	2015-2025	
General Line Grocery Merchant Wholesalers	424410	28	26	-1	-0.5%
Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	424930	40	36	-4	-1.1%
Other Support Activities for Air Transportation	488190	61	56	-5	-0.8%
Packaged Frozen Food Merchant Wholesalers	424420	10	3	-7	-11.4%
Packing and Crating	488991	25	15	-9	-4.6%
Livestock Merchant Wholesalers	424520	33	14	-18	-7.8%
Specialized Freight (except Used Goods) Trucking, Long-Distance	484230	25	3	-22	-19.3%
All Other Specialty Food Stores	445299	80	33	-47	-8.4%
Fresh Fruit and Vegetable Merchant Wholesalers	424480	357	306	-51	-1.5%
Confectionery Merchant Wholesalers	424450	86	34	-52	-8.8%

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

Ag and Food -- Processing		Employment		Change	Ann. Growth Rate
Industries	NAICS	2015	2025p	2015-2025	
Total		7,476	8,760	1,284	1.6%
Fluid Milk Manufacturing	311511	1,139	1,505	366	2.8%
Roasted Nuts and Peanut Butter Manufacturing	311911	815	1,103	288	3.1%
Other Animal Food Manufacturing	311119	466	703	237	4.2%
Corrugated and Solid Fiber Box Manufacturing	322211	374	531	157	3.6%
Frozen Specialty Food Manufacturing	311412	1,887	1,999	112	0.6%
Ice Cream and Frozen Dessert Manufacturing	311520	280	356	76	2.4%
Fruit and Vegetable Canning	311421	384	446	61	1.5%
Sawmills	321113	159	204	45	2.5%
Wood Container and Pallet Manufacturing	321920	136	177	40	2.6%
Nonchocolate Confectionery Manufacturing	311340	3	39	36	29.3%
Tortilla Manufacturing	311830	19	41	21	7.7%
Wineries	312130	140	158	18	1.2%
Dog and Cat Food Manufacturing	311111	18	19	1	0.8%
Fats and Oils Refining and Blending	311225	3	3	0	0.0%
Animal (except Poultry) Slaughtering	311611	3	3	0	0.0%
Meat Processed from Carcasses	311612	3	3	0	0.0%

Ag and Food -- Processing		Employment		Change	Ann. Growth Rate
Industries	NAICS	2015	2025p	2015-2025	
Other Snack Food Manufacturing	311919	3	3	0	0.0%
Coffee and Tea Manufacturing	311920	3	3	0	0.0%
Soft Drink Manufacturing	312111	3	3	0	0.0%
Folding Paperboard Box Manufacturing	322212	3	3	0	0.0%
Biological Product (except Diagnostic) Manufacturing	325414	3	3	0	0.0%
Poultry Processing	311615	39	36	-3	-0.8%
Commercial Bakeries	311812	35	30	-4	-1.3%
Frozen Fruit, Juice, and Vegetable Manufacturing	311411	234	230	-5	-0.2%
Dried and Dehydrated Food Manufacturing	311423	17	12	-5	-3.4%
Retail Bakeries	311811	14	3	-11	-14.4%
All Other Miscellaneous Food Manufacturing	311999	32	15	-17	-7.5%
Dry, Condensed, and Evaporated Dairy Product Manufacturing	311514	63	3	-60	-26.2%
Cheese Manufacturing	311513	1,196	1,126	-70	-0.6%

Source: Applied Development Economics, based on EMSI

**Appendix Table 3 - Employment Projections by Industry Clusters: Agriculture: Production
Tulare County**

Ag and Food -- Production		Employment		Change	Ann. Growth Rate
NAICS	Industry	2015	2025p	2015-2025	
Total		12,586	10,681	-1,905	-1.6%
Hunting and Trapping	114210	3	-	-3	-100.0%
Forest Nurseries and Gathering of Forest Products	113210	67	26	-40	-8.8%
Animal Production and Aquaculture	112000	5,571	5,220	-350	-0.6%
Crop Production	111000	6,946	5,434	-1,511	-2.4%

Source: Applied Development Economics, based on EMSI

**Appendix Table 4 - Employment Projections by Industry Clusters: Agriculture: Support
Tulare County**

Ag and Food -- Support Industries	NAICS	Employment		Change	Ann. Growth Rate
		2015	2025p	2015-2025	
Total		30,552	33,613	3,061	1.0%
Temporary Help Services	561320	2,905	3,690	785	2.4%
Farm Management Services	115116	1,856	2,599	743	3.4%
Farm Labor Contractors and Crew Leaders	115115	15,325	15,966	641	0.4%
Office Administrative Services	561110	363	687	324	6.6%
Other Scientific and Technical Consulting Services	541690	253	484	231	6.7%
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	811310	474	690	216	3.8%
Water and Sewer Line and Related Structures Construction	237110	377	517	139	3.2%
Soil Preparation, Planting, and Cultivating	115112	633	740	107	1.6%
Real Estate Credit	522292	145	246	102	5.5%
Testing Laboratories	541380	118	204	86	5.6%
Process, Physical Distribution, and Logistics Consulting Services	541614	84	152	69	6.2%
Packaging Machinery Manufacturing	333993	220	278	59	2.4%
Veterinary Services	541940	224	263	39	1.6%
Landscaping Services	561730	537	576	39	0.7%
Environmental Consulting Services	541620	33	71	38	7.9%
Industrial Machinery and Equipment Merchant Wholesalers	423830	143	174	31	2.0%
Materials Recovery Facilities	562920	13	38	25	11.3%
Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	423860	31	55	24	5.8%
Fertilizer (Mixing Only) Manufacturing	325314	60	82	22	3.1%
Farm and Garden Machinery and Equipment Merchant Wholesalers	423820	370	386	16	0.4%
Exterminating and Pest Control Services	561710	139	154	16	1.1%
Water Supply and Irrigation Systems	221310	142	156	14	0.9%
Surveying and Mapping (except Geophysical) Services	541370	12	23	10	6.4%
Public Relations Agencies	541820	3	6	3	7.2%
Pesticide and Other Agricultural Chemical Manufacturing	325320	3	3	0	0.0%
Service Establishment Equipment and Supplies Merchant Wholesalers	423850	3	3	0	0.0%
Other Commercial and Industrial Machinery and Equipment Rental and Leasing	532490	3	3	0	0.0%

Ag and Food -- Support		Employment		Change	Ann. Growth Rate
Industries	NAICS	2015	2025p	2015-2025	
Geophysical Surveying and Mapping Services	541360	3	3	0	0.0%
Marketing Consulting Services	541613	3	3	0	0.0%
Advertising Material Distribution Services	541870	3	3	0	0.0%
Industrial Supplies Merchant Wholesalers	423840	126	123	-3	-0.2%
Outdoor Advertising	541850	6	3	-3	-6.7%
Other Services Related to Advertising	541890	36	31	-5	-1.5%
Support Activities for Forestry	115310	54	48	-6	-1.2%
Outdoor Power Equipment Stores	444210	30	20	-10	-3.9%
Advertising Agencies	541810	16	6	-10	-9.5%
Farm Machinery and Equipment Manufacturing	333111	263	252	-11	-0.4%
Pump and Pumping Equipment Manufacturing	333911	26	11	-15	-8.6%
Cotton Ginning	115111	29	3	-26	-20.4%
Support Activities for Animal Production	115210	35	3	-32	-21.8%
Crop Harvesting, Primarily by Machine	115113	280	243	-37	-1.4%
Prefabricated Metal Building and Component Manufacturing	332311	143	89	-54	-4.6%
Nursery, Garden Center, and Farm Supply Stores	444220	96	29	-67	-11.3%
Postharvest Crop Activities (except Cotton Ginning)	115114	4,318	4,234	-84	-0.2%
Corporate, Subsidiary, and Regional Managing Offices	551114	614	261	-352	-8.2%

Appendix Table 5 - Employment Projections by Industry Clusters: Energy

Tulare County			Employment		Change	Ann. Growth Rate
	Industry	NAICS	2015	2025p	2015-2025	
Energy Cluster and Sub-Clusters: Total			6,706	8,347	1,640	2.2%
06 Energy--01 Energy Core--01 Petroleum	Drilling Oil and Gas Wells	213111	25	25	0	0.2%
06 Energy--01 Energy Core--01 Petroleum	Crude Petroleum and Natural Gas Extraction	211111	10	10	0	-0.1%
06 Energy--01 Energy Core--01 Petroleum	Petroleum Refineries	324110	3	3	0	0.0%
06 Energy--01 Energy Core--02 Petroleum Distribution	Petroleum Bulk Stations and Terminals	424710	66	98	32	4.0%
06 Energy--01 Energy Core--02 Petroleum Distribution	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	424720	181	202	21	1.1%
06 Energy--01 Energy Core--03 Power Generation	Natural Gas Distribution	221210	353	385	31	0.9%
06 Energy--01 Energy Core--03 Power Generation	Electric Bulk Power Transmission and Control	221121	35	56	20	4.7%
06 Energy--01 Energy Core--03 Power Generation	Hydroelectric Power Generation	221111	25	0	-25	-100.0%
06 Energy--01 Energy Core--03 Power Generation	Fossil Fuel Electric Power Generation	221112	182	72	-110	-8.9%
06 Energy--01 Energy Core--04 Alt Energy Production	Water and Sewer Line and Related Structures Construction	237110	377	517	139	3.2%
06 Energy--01 Energy Core--04 Alt Energy Production	Ethyl Alcohol Manufacturing	325193	20	38	18	6.7%
06 Energy--01 Energy Core--04 Alt Energy Production	Roofing Contractors	238160	112	23	-89	-14.7%
06 Energy--01 Energy Core--05 Alt Energy Distribution	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	423610	139	213	74	4.4%
06 Energy--01 Energy Core--05 Alt Energy Distribution	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	423720	45	45	0	-0.1%

Tulare County			Employment		Change	Ann. Growth Rate
	Industry	NAICS	2015	2025p	2015-2025	
06 Energy--01 Energy Core--05 Alt Energy Distribution	Other Electronic Parts and Equipment Merchant Wholesalers	423690	16	3	-13	-15.3%
06 Energy--01 Energy Core--06 Energy Efficiency	Drywall and Insulation Contractors	238310	429	698	269	5.0%
06 Energy--01 Energy Core--06 Energy Efficiency	Plumbing, Heating, and Air-Conditioning Contractors	238220	1,114	1,375	261	2.1%
06 Energy--01 Energy Core--06 Energy Efficiency	Electrical Contractors and Other Wiring Installation Contractors	238210	629	671	42	0.7%
06 Energy--01 Energy Core--07 Energy Equipment Mfg	Heating Equipment (except Warm Air Furnaces) Manufacturing	333414	3	3	0	0.0%
06 Energy--02 Energy related--01 Manufacturing	Semiconductor and Related Device Manufacturing	334413	206	253	47	2.1%
06 Energy--02 Energy related--01 Manufacturing	Fats and Oils Refining and Blending	311225	3	3	0	0.0%
06 Energy--02 Energy related--01 Manufacturing	Motor and Generator Manufacturing	335312	3	3	0	0.0%
06 Energy--02 Energy related--02 Services	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	811310	474	690	216	3.8%
06 Energy--02 Energy related--02 Services	Miscellaneous Intermediation	523910	13	25	12	7.1%
06 Energy--02 Energy related--02 Services	Other Electronic and Precision Equipment Repair and Maintenance	811219	3	3	0	0.0%
06 Energy--02 Energy related--03 Research	Prof., Scientific, Technical	541	2,241	2,918	677	2.7%

Appendix Table 6 - Employment Projections by Industry Clusters: Health and Wellness: All Others Tulare County

Tulare County			Employment		Change	Ann. Growth Rate
Health and Wellness: All Others	Industry	NAICS	2015	2025p.	2015-2025	
Total			4,646	6,473	1,827	3.4%
02 Health and Wellness--02 Pharmaceuticals	In-Vitro Diagnostic Substance Manufacturing	325413	19	37	18	7.0%
02 Health and Wellness--02 Pharmaceuticals	Biological Product (except Diagnostic) Manufacturing	325414	3	3	0	0.0%
02 Health and Wellness--03 Wellness and Fitness	Pharmacies and Drug Stores	446110	695	756	61	0.8%
02 Health and Wellness--03 Wellness and Fitness	Food (Health) Supplement Stores	446191	35	47	13	3.2%
02 Health and Wellness--03 Wellness and Fitness	Optical Goods Stores	446130	40	52	12	2.7%
02 Health and Wellness--03 Wellness and Fitness	Offices of All Other Miscellaneous Health Practitioners	621399	29	33	4	1.1%
02 Health and Wellness--03 Wellness and Fitness	All Other Health and Personal Care Stores	446199	59	61	2	0.3%
02 Health and Wellness--03 Wellness and Fitness	All Other Miscellaneous Ambulatory Health Care Services	621999	3	3	0	0.0%
02 Health and Wellness--03 Wellness and Fitness	Diet and Weight Reducing Centers	812191	3	3	0	0.0%
02 Health and Wellness--03 Wellness and Fitness	Home Health Equipment Rental	532291	34	25	-8	-2.8%
02 Health and Wellness--04 Medical devices manufacturing	Ophthalmic Goods Manufacturing	339115	3	3	0	0.0%
02 Health and Wellness--04 Medical devices manufacturing	Dental Laboratories	339116	14	10	-3	-2.7%
02 Health and Wellness--05 Supplies and Services	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	423450	160	265	105	5.2%
02 Health and Wellness--05 Supplies and Services	Drugs and Druggists' Sundries Merchant Wholesalers	424210	210	296	86	3.5%
02 Health and Wellness--05 Supplies and Services	Other Professional Equipment and Supplies Merchant Wholesalers	423490	71	86	15	2.0%
02 Health and Wellness--06 Other Services	Services for the Elderly and Persons with Disabilities	624120	1,904	3,295	1,392	5.6%

Tulare County			Employment		Change	Ann. Growth Rate
Health and Wellness: All Others	Industry	NAICS	2015	2025p.	2015-2025	
02 Health and Wellness--06 Other Services	Other Individual and Family Services	624190	363	524	161	3.7%
02 Health and Wellness--06 Other Services	Other Community Housing Services	624229	69	123	53	5.9%
02 Health and Wellness--06 Other Services	Child Day Care Services	624410	193	240	47	2.2%
02 Health and Wellness--06 Other Services	Temporary Shelters	624221	54	79	24	3.8%
02 Health and Wellness--06 Other Services	Community Food Services	624210	24	39	15	4.9%
02 Health and Wellness--06 Other Services	Emergency and Other Relief Services	624230	3	6	3	7.2%
02 Health and Wellness--06 Other Services	Child and Youth Services	624110	659	486	-172	-3.0%

Appendix Table 7 - Employment Projections by Industry Clusters: Logistics Tulare County

Logistics --		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025p.	2015-2025	
Total		6,463	7,935	1,472	2.1%
General Warehousing and Storage	493110	2,190	2,809	619	2.5%
General Freight Trucking, Long-Distance, Truckload	484121	691	955	265	3.3%
Special Needs Transportation	485991	235	385	151	5.1%
Specialized Freight (except Used Goods) Trucking, Local	484220	804	904	99	1.2%
Packaging and Labeling Services	561910	81	170	89	7.7%
General Freight Trucking, Local	484110	631	701	71	1.1%
Process, Physical Distribution, and Logistics Consulting Services	541614	84	152	69	6.2%
General Freight Trucking, Long-Distance, Less Than Truckload	484122	152	208	56	3.2%
Local Messengers and Local Delivery	492210	142	186	44	2.8%
Bus and Other Motor Vehicle Transit Systems	485113	39	83	43	7.7%
Nonscheduled Chartered Passenger Air Transportation	481211	75	110	35	3.9%
Heavy Duty Truck Manufacturing	336120	57	90	33	4.6%
All Other Transit and Ground Passenger Transportation	485999	28	51	23	6.2%
Rail transportation	482110	101	116	15	1.4%
Motor Vehicle Towing	488410	47	62	15	2.8%
Freight Transportation Arrangement	488510	58	72	14	2.1%
Other Warehousing and Storage	493190	35	44	9	2.3%
Refrigerated Warehousing and Storage	493120	257	261	5	0.2%
Taxi Service	485310	3	3	0	0.0%
Support Activities for Rail Transportation	488210	3	3	0	0.0%
Other Support Activities for Road Transportation	488490	3	3	0	0.0%
All Other Support Activities for Transportation	488999	3	3	0	0.0%
Farm Product Warehousing and Storage	493130	3	3	0	0.0%
Used Household and Office Goods Moving	484210	51	49	-2	-0.3%
Other Support Activities for Air Transportation	488190	61	56	-5	-0.8%
Packing and Crating	488991	25	15	-9	-4.6%
Mixed Mode Transit Systems	485111	90	77	-13	-1.5%
Specialized Freight (except Used Goods) Trucking, Long-Distance	484230	25	3	-22	-19.3%
School and Employee Bus Transportation	485410	128	95	-33	-2.9%
Charter Bus Industry	485510	44	3	-41	-23.5%
Couriers and Express Delivery Services	492110	320	262	-58	-2.0%

**Appendix Table 8 - Employment Projections by Industry Clusters: Manufacturing: All Others
Tulare County**

Manufacturing -- Other		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025p.	2015-2025	
Total		2,827	2,449	-378	-1.4%
Plastics Packaging Film and Sheet (including Laminated) Manufacturing	326112	488	811	323	5.2%
Packaging Machinery Manufacturing	333993	220	278	59	2.4%
Conveyor and Conveying Equipment Manufacturing	333922	117	146	29	2.3%
All Other Miscellaneous Chemical Product and Preparation Manufacturing	325998	24	50	26	7.7%
Sheet Metal Work Manufacturing	332322	32	57	25	6.0%
Fertilizer (Mixing Only) Manufacturing	325314	60	82	22	3.1%
Bolt, Nut, Screw, Rivet, and Washer Manufacturing	332722	27	41	14	4.2%
All Other Miscellaneous Fabricated Metal Product Manufacturing	332999	37	51	14	3.2%
Steel Wire Drawing	331222	10	21	11	7.6%
Broom, Brush, and Mop Manufacturing	339994	3	14	11	16.5%
Sign Manufacturing	339950	16	27	11	5.3%
Electroplating, Plating, Polishing, Anodizing, and Coloring	332813	13	22	10	6.0%
Showcase, Partition, Shelving, and Locker Manufacturing	337215	3	13	10	15.6%
Other Millwork (including Flooring)	321918	52	61	9	1.6%
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	332812	16	24	8	4.2%
All Other Miscellaneous Manufacturing	339999	20	27	7	2.9%
Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	331491	0	3	3	100.0%
Power Boiler and Heat Exchanger Manufacturing	332410	11	11	1	0.7%
Paint and Coating Manufacturing	325510	12	12	0	0.1%
All Other Miscellaneous Textile Product Mills	314999	3	3	0	0.0%
Truss Manufacturing	321214	3	3	0	0.0%
Wood Window and Door Manufacturing	321911	3	3	0	0.0%
Commercial Screen Printing	323113	3	3	0	0.0%
Asphalt Paving Mixture and Block Manufacturing	324121	3	3	0	0.0%
Pesticide and Other Agricultural Chemical Manufacturing	325320	3	3	0	0.0%
Adhesive Manufacturing	325520	3	3	0	0.0%

Manufacturing -- Other		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025p.	2015-2025	
Soap and Other Detergent Manufacturing	325611	3	3	0	0.0%
Polish and Other Sanitation Good Manufacturing	325612	3	3	0	0.0%
Fabricated Structural Metal Manufacturing	332312	3	3	0	0.0%
Plate Work Manufacturing	332313	3	3	0	0.0%
Ornamental and Architectural Metal Work Manufacturing	332323	3	3	0	0.0%
Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	333415	3	3	0	0.0%
Industrial Mold Manufacturing	333511	3	3	0	0.0%
Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	334220	3	3	0	0.0%
Motor Vehicle Body Manufacturing	336211	3	3	0	0.0%
Motor Vehicle Transmission and Power Train Parts Manufacturing	336350	3	3	0	0.0%
Aircraft Manufacturing	336411	3	3	0	0.0%
Other Aircraft Parts and Auxiliary Equipment Manufacturing	336413	3	3	0	0.0%
Motorcycle, Bicycle, and Parts Manufacturing	336991	3	3	0	0.0%
All Other Miscellaneous Wood Product Manufacturing	321999	3	0	-3	-100.0%
Flat Glass Manufacturing	327211	3	0	-3	-100.0%
Concrete Pipe Manufacturing	327332	3	0	-3	-100.0%
Nonupholstered Wood Household Furniture Manufacturing	337122	3	0	-3	-100.0%
Aircraft Engine and Engine Parts Manufacturing	336412	26	22	-5	-2.0%
Printed Circuit Assembly (Electronic Assembly) Manufacturing	334418	11	3	-8	-11.9%
Other Concrete Product Manufacturing	327390	11	3	-8	-12.3%
Urethane and Other Foam Product (except Polystyrene) Manufacturing	326150	12	3	-9	-13.0%
Machine Shops	332710	67	52	-16	-2.6%
Aluminum Sheet, Plate, and Foil Manufacturing	331315	19	0	-19	-100.0%
Plumbing Fixture Fitting and Trim Manufacturing	332913	74	51	-23	-3.7%
Wood Kitchen Cabinet and Countertop Manufacturing	337110	50	21	-29	-8.4%
All Other Plastics Product Manufacturing	326199	121	92	-29	-2.7%
Other Fabricated Wire Product Manufacturing	332618	60	28	-32	-7.4%
Metal Window and Door Manufacturing	332321	92	51	-41	-5.7%
Prefabricated Metal Building and Component	332311	143	89	-54	-4.6%

Manufacturing -- Other		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025p.	2015-2025	
Manufacturing					
Industrial Valve Manufacturing	332911	58	3	-55	-25.7%
Ready-Mix Concrete Manufacturing	327320	83	20	-63	-13.2%
Manufactured Home (Mobile Home) Manufacturing	321991	82	0	-82	-100.0%
Commercial Printing (except Screen and Books)	323111	175	88	-87	-6.6%
Polystyrene Foam Product Manufacturing	326140	130	17	-113	-18.4%
Bare Printed Circuit Board Manufacturing	334412	200	81	-118	-8.6%
Books Printing	323117	181	13	-168	-23.3%

**Appendix Table 9 - Employment Projections by Industry Clusters: Water Flow Technologies
Tulare County**

Water Flow Technology --		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025p	2015-2025	
Total		1,191	1,357	166	1.3%
Farm Supplies Merchant Wholesalers	424910	489	683	194	3.4%
Industrial Machinery and Equipment Merchant Wholesalers	423830	143	174	31	2.0%
Farm Machinery and Equipment Manufacturing	333111	263	252	-11	-0.4%
Pump and Pumping Equipment Manufacturing	333911	26	11	-15	-8.6%
Plastics Pipe and Pipe Fitting Manufacturing	326122	270	237	-32	-1.3%

**Appendix Table 10 - Employment Projections by Industry Clusters: Heavy Construction
Tulare County**

Heavy Construction		Employment		Change	Ann. Growth Rate
Industry	NAICS	2015	2025p	2015-2025	
Total		789	1,107	318	3.4%
Water and Sewer Line and Related Structures Construction	237110	377	517	139	3.2%
Public Sector Hvy Cons	237000	255	255	0	0.0%
Other Heavy and Civil Engineering Construction	237990	26	295	269	27.5%
Land Subdivision	237210	38	6	-32	-16.9%
Highway, Street, and Bridge Construction	237310	92	34	-58	-9.6%

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

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

Source: Applied Development Economics, based on EMSI

Appendix Table 12- Population by Age, Race\Ethnicity, and Educational Attainment Tulare County

	0-15	16-19	20-24	25-29	30-34	35-54	55-64	65+	Total
Total	129,152	29,914	35,254	31,689	31,988	108,366	42,673	46,244	455,280
White	23,866	6,691	7,840	8,079	8,162	36,227	21,447	28,190	140,502
Did not earn HSD\GED	19,408	4,598	1,126	563	297	3,376	2,398	5,397	37,163
HSD\GED	0	1,029	1,872	2,122	3,194	9,864	5,123	8,961	32,165
Some college -- not attending	0	223	1,820	1,363	2,420	9,964	6,045	6,235	28,070
Some college -- attending	0	841	1,776	1,028	253	602	85	3	4,588
AA	0	0	723	681	507	3,569	2,719	2,543	10,743
BA+	0	0	523	2,322	1,490	8,851	5,077	5,051	23,314
NA	4,458	0	0	0	0	0	0	0	4,458
Latino	97,642	20,640	24,908	21,747	21,497	64,352	18,167	14,865	283,818
Did not earn HSD\GED	80,735	13,213	5,965	6,897	8,668	31,958	10,406	10,483	168,325
HSD\GED	0	4,644	8,143	7,177	6,371	15,153	2,944	2,251	46,684
Some college -- not attending	0	598	2,766	3,529	3,034	9,623	2,751	1,460	23,761
Some college -- attending	155	2,116	6,092	804	927	809	0	0	10,903
AA	0	69	1,224	1,449	1,220	2,628	1,210	360	8,160
BA+	0	0	718	1,891	1,276	4,181	855	311	9,233
NA	16,751	0	0	0	0	0	0	0	16,751
Other	7,644	2,583	2,506	1,863	2,329	7,787	3,059	3,188	30,960
Did not earn HSD\GED	6,273	1,490	208	257	400	1,210	457	1,342	11,638
HSD\GED	0	629	945	455	481	1,610	580	646	5,345
Some college -- not attending	0	263	384	341	801	2,041	874	437	5,141
Some college -- attending	0	201	596	164	0	117	12	10	1,100
AA	0	0	205	152	445	837	240	68	1,947
BA+	0	0	169	495	203	1,972	896	685	4,419
NA	1,371	0	0	0	0	0	0	0	1,371

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	4,839	18,666	21,717	22,004	73,803	22,631	7,109	147,264	170,769
White	1,131	4,360	5,852	6,079	26,239	11,872	4,888	54,930	60,421
Did not earn HSD\GED	NA	NA	180	162	1,279	893	565	3,078	NA
HSD\GED	NA	NA	1,495	1,920	6,321	2,664	1,278	13,678	NA
Some college -- not attending	NA	NA	1,100	2,131	7,657	3,009	1,213	15,110	NA
Some college -- attending	NA	NA	663	66	489	0	0	1,218	NA
AA	NA	NA	591	422	2,617	1,591	613	5,834	NA
BA+	NA	NA	1,824	1,378	7,877	3,715	1,218	16,012	NA
Latino	3,088	12,810	14,677	14,313	42,242	9,160	1,846	82,239	98,137
Did not earn HSD\GED	NA	NA	3,763	5,603	19,821	4,421	1,184	34,792	NA
HSD\GED	NA	NA	5,086	4,020	10,152	1,708	299	21,265	NA
Some college -- not attending	NA	NA	2,655	2,473	6,318	1,626	198	13,270	NA
Some college -- attending	NA	NA	387	224	237	0	0	848	NA
AA	NA	NA	1,193	887	2,067	698	115	4,960	NA
BA+	NA	NA	1,594	1,107	3,647	707	50	7,104	NA
Other	619	1,496	1,188	1,612	5,322	1,598	375	10,096	12,211
Did not earn HSD\GED	NA	NA	101	153	504	66	21	9,250	NA
HSD\GED	NA	NA	263	289	1,062	241	112	1,967	NA
Some college -- not attending	NA	NA	162	522	1,506	382	91	2,663	NA
Some college -- attending	NA	NA	164	0	49	12	0	225	NA
AA	NA	NA	152	445	532	175	42	1,346	NA
BA+	NA	NA	347	203	1,668	722	109	3,049	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	435	8,861	12,749	14,755	51,382	16,261	3,321	98,468	107,764
White	0	1,950	2,905	4,791	20,180	8,902	2,449	39,228	41,177
Did not earn HSD\GED	NA	NA	180	69	956	712	360	2,277	NA
HSD\GED	NA	NA	841	1,540	4,317	1,805	540	9,044	NA
Some college -- not attending	NA	NA	697	1,820	6,062	2,294	622	11,496	NA
Some college -- attending	NA	NA	60	24	372	0	0	456	NA
AA	NA	NA	413	288	1,958	1,095	396	4,150	NA
BA+	NA	NA	715	1,050	6,515	2,995	531	11,806	NA
Latino	426	6,213	9,137	8,858	27,496	6,168	676	52,335	58,974
Did not earn HSD\GED	NA	NA	2,244	2,393	11,133	2,589	440	18,798	NA
HSD\GED	NA	NA	2,907	2,727	6,896	1,302	98	13,929	NA
Some college -- not attending	NA	NA	1,719	2,067	4,680	1,290	139	9,895	NA
Some college -- attending	NA	NA	137	110	146	0	0	393	NA
AA	NA	NA	853	586	1,800	407	0	3,646	NA
BA+	NA	NA	1,277	976	2,841	579	0	5,673	NA
Other	9	699	706	1,106	3,706	1,191	196	6,905	7,613
Did not earn HSD\GED	NA	NA	48	56	229	3	0	6,570	NA
HSD\GED	NA	NA	38	264	758	161	83	1,304	NA
Some college -- not attending	NA	NA	162	281	1,291	281	75	2,089	NA
Some college -- attending	NA	NA	164	0	13	0	0	177	NA
AA	NA	NA	152	324	324	166	10	976	NA
BA+	0	167	1,027	1,401	7,604	1,636	508	12,344	

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

Appendix Table 15- Labor Force by Age, Gender, and Educational Attainment (Persons 16 and Over) Tulare County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	7,113	22,649	24,363	23,821	82,797	24,709	7,894	163,584	193,346
Men	4,160	12,588	13,871	13,777	46,962	13,551	3,944	92,106	108,854
Did not earn HSD\GED	NA	NA	3,275	4,953	16,398	4,233	1,136	29,995	NA
HSD\GED	NA	NA	5,066	4,138	12,756	2,638	694	25,292	NA
Some college -- not attending	NA	NA	1,975	2,834	8,550	2,579	787	16,726	NA
Some college -- attending	NA	NA	985	183	506	0	0	1,673	NA
AA	NA	NA	698	712	2,776	968	367	5,521	NA
BA+	NA	NA	1,874	957	5,976	3,133	960	12,899	NA
Women	2,952	10,061	10,492	10,045	35,835	11,157	3,950	71,478	84,492
Did not earn HSD\GED	NA	NA	1,519	1,733	9,743	2,072	986	16,053	NA
HSD\GED	NA	NA	2,682	2,809	6,825	2,322	1,188	15,827	NA
Some college -- not attending	NA	NA	2,442	2,411	8,255	2,849	854	16,811	NA
Some college -- attending	NA	NA	412	181	471	12	10	1,086	NA
AA	NA	NA	1,397	1,129	2,848	1,630	430	7,433	NA
BA+	NA	NA	2,040	1,782	7,692	2,273	481	14,268	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	4,403	9,805	8,968	7,249	22,421	6,370	3,788	48,797	63,005
Men	2,345	5,138	4,854	3,687	10,715	2,854	1,715	23,824	31,307
Did not earn HSD\GED	NA	NA	1,085	2,191	5,647	1,377	464	10,764	NA
HSD\GED	NA	NA	1,967	843	2,936	371	311	6,428	NA
Some college -- not attending	NA	NA	516	405	1,127	417	251	2,715	NA
Some college -- attending	NA	NA	635	19	36	0	0	689	NA
AA	NA	NA	67	145	461	215	94	981	NA
BA+	NA	NA	584	85	509	473	596	2,247	NA
Women	2,059	4,667	4,114	3,562	11,706	3,516	2,074	24,972	31,698
Did not earn HSD\GED	NA	NA	486	1,209	3,640	700	507	6,542	NA
HSD\GED	NA	NA	1,090	856	2,628	973	657	6,205	NA
Some college -- not attending	NA	NA	824	553	2,321	735	415	4,849	NA
Some college -- attending	NA	NA	218	138	208	12	0	575	NA
AA	NA	NA	450	410	674	581	271	2,387	NA
BA+	NA	NA	1,046	396	2,235	514	223	4,415	NA

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

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

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	2,274	3,983	2,646	1,817	8,994	2,078	785	16,320	22,577
Men	1,546	2,068	1,441	1,074	4,438	966	394	8,312	11,927
Did not earn HSD\GED	NA	NA	442	551	2,065	409	126	3,593	NA
HSD\GED	NA	NA	487	376	1,160	173	192	2,388	NA
Some college -- not attending	NA	NA	247	67	714	120	11	1,160	NA
Some college -- attending	NA	NA	162	57	114	0	0	333	NA
AA	NA	NA	28	21	140	60	0	249	NA
BA+	NA	NA	74	0	245	205	65	589	NA
Women	728	1,915	1,205	743	4,556	1,112	391	8,008	10,650
Did not earn HSD\GED	NA	NA	308	217	2,472	515	226	3,739	NA
HSD\GED	NA	NA	417	341	887	175	0	1,820	NA
Some college -- not attending	NA	NA	252	51	611	291	129	1,333	NA
Some college -- attending	NA	NA	21	17	88	0	10	136	NA
AA	NA	NA	131	66	268	74	26	566	NA
BA+	NA	NA	75	52	230	57	0	414	NA

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

Appendix Table 18- Unemployment Rates by Age, Gender, and Educational Attainment Tulare County

	16-19	20-24	25-29	30-34	35-54	55-64	65+	Labor Force (25+)	Total Labor Force
Total	32.0%	17.6%	10.9%	7.6%	10.9%	8.4%	9.9%	10.0%	11.7%
Men	37.2%	16.4%	10.4%	7.8%	9.4%	7.1%	10.0%	9.0%	11.0%
Did not earn HSD\GED	NA	NA	13.5%	11.1%	12.6%	9.7%	11.1%	12.0%	NA
HSD\GED	NA	NA	9.6%	9.1%	9.1%	6.5%	27.7%	9.4%	NA
Some college -- not attending	NA	NA	12.5%	2.4%	8.4%	4.6%	1.4%	6.9%	NA
Some college -- attending	NA	NA	16.4%	31.3%	22.5%	NA	NA	19.9%	NA
AA	NA	NA	4.0%	3.0%	5.0%	6.2%	0.0%	4.5%	NA
BA+	NA	NA	4.0%	0.0%	4.1%	6.5%	6.7%	4.6%	NA
Women	24.6%	19.0%	11.5%	7.4%	12.7%	10.0%	9.9%	11.2%	12.6%
Did not earn HSD\GED	NA	NA	20.3%	12.5%	25.4%	24.9%	23.0%	23.3%	NA
HSD\GED	NA	NA	15.5%	12.1%	13.0%	7.5%	0.0%	11.5%	NA
Some college -- not attending	NA	NA	10.3%	2.1%	7.4%	10.2%	15.1%	7.9%	NA
Some college -- attending	NA	NA	5.1%	9.2%	18.7%	0.0%	100.0%	12.5%	NA
AA	NA	NA	9.4%	5.8%	9.4%	4.5%	6.1%	7.6%	NA
BA+	NA	NA	3.7%	2.9%	3.0%	2.5%	0.0%	2.9%	NA

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

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

Broad Occupational Categories	Total	Managers					
		Sub-Total (inc. BA+)	<HS	HS	Some Coll OUT	Some Coll IN	AA
Total	63,005	4,372	583	817	737	93	294
11 Management Occupations	2,313	2,313	174	354	365	0	114
13 Business Operations Specialists	425	0	0	0	0	0	0
13 Financial Specialists	184	0	0	0	0	0	0
15 Computer and Mathematical Occupations	236	0	0	0	0	0	0
17 Architecture and Engineering Occupations	102	0	0	0	0	0	0
19 Life, Physical, and Social Science Occupations	218	15	0	0	0	0	0
21 Community and Social Science Occupations	5,345	85	0	0	0	0	0
27 Arts, Design, Entertainment, Sports, and Media Occupations	542	0	0	0	0	0	0
29 Healthcare Practitioners and Technical Occupations	1,231	179	0	0	0	0	0
31 Healthcare Support Occupations	1,344	0	0	0	0	0	0
33 Protective Service Occupations	1,152	52	0	52	0	0	0
35 Food Preparation and Serving Occupations	4,657	142	0	47	95	0	0
37 Building and Ground Cleaning and Maintenance Occupations	2,888	133	0	43	68	0	0
39 Personal Care and Service Occupations	4,112	87	27	0	60	0	0
41 Sales Occupations	6,598	645	67	208	107	26	89
43 Office and Administrative Support Occupations	5,050	151	0	0	0	67	84
45 Farming, Fishing, and Forestry Occupations	17,531	309	162	114	33	0	0
47 Construction Trades	2,048	126	119	0	0	0	7
47 Extraction Workers	47	0	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	579	0	0	0	0	0	0
51 Production Occupations	1,770	124	34	0	0	0	0
53 Transportation and Material Moving Occupations	4,632	10	0	0	10	0	0
55 Military Specific Occupations	0	0	0	0	0	0	0

Broad Occupational Categories	Specialists					
	Sub-Total (inc. BA+)	<HS	HS	Some Coll OUT	Some Coll IN	AA
Total	19,851	4,143	5,132	3,618	1,752	1,482
11 Management Occupations	0	0	0	0	0	0
13 Business Operations Specialists	425	115	87	89	0	13
13 Financial Specialists	184	0	83	17	0	39
15 Computer and Mathematical Occupations	236	0	57	109	37	0
17 Architecture and Engineering Occupations	102	0	0	3	0	36
19 Life, Physical, and Social Science Occupations	203	16	49	47	0	0
21 Community and Social Science Occupations	3,825	38	142	553	419	357
27 Arts, Design, Entertainment, Sports, and Media Occupations	542	118	111	120	121	41
29 Healthcare Practitioners and Technical Occupations	1,052	0	87	242	18	426
31 Healthcare Support Occupations	0	0	0	0	0	0
33 Protective Service Occupations	615	0	259	106	220	30
35 Food Preparation and Serving Occupations	2,156	404	913	323	502	14
37 Building and Ground Cleaning and Maintenance Occupations	0	0	0	0	0	0
39 Personal Care and Service Occupations	1,216	122	385	274	164	173
41 Sales Occupations	514	8	141	160	0	64
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	1,922	801	527	208	101	82
47 Extraction Workers	47	47	0	0	0	0
49 Installation, Maintenance, and Repair Workers	543	209	172	106	0	15
51 Production Occupations	1,646	592	706	196	39	106
53 Transportation and Material Moving Occupations	4,622	1,672	1,415	1,065	132	86
55 Military Specific Occupations	0	0	0	0	0	0

Broad Occupational Categories	Support					
	Sub-Total (inc. BA+)	<HS	HS	Some Coll OUT	Some Coll IN	AA
Total	38,782	15,932	11,246	4,679	3,559	2,019
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	1,435	80	191	430	363	296
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	1,344	113	203	404	100	317
33 Protective Service Occupations	485	30	103	132	32	63
35 Food Preparation and Serving Occupations	2,359	482	847	315	605	53
37 Building and Ground Cleaning and Maintenance Occupations	2,755	912	1,287	213	267	20
39 Personal Care and Service Occupations	2,808	576	1,021	525	353	150
41 Sales Occupations	5,439	930	1,756	888	1,252	435
43 Office and Administrative Support Occupations	4,899	432	1,720	1,133	495	669
45 Farming, Fishing, and Forestry Occupations	17,223	12,378	4,117	625	69	16
47 Construction Trades	0	0	0	0	0	0
47 Extraction Workers	0	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	36	0	0	13	22	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	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).

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

Broad Occupational Categories	Total	Managers					
		Sub- Total (inc. BA+)	<HS	HS	Some Coll OUT	Some Coll IN	AA
Total	18,323	848	90	503	108	19	55
11 Management Occupations	195	195	20	86	32	0	20
13 Business Operations Specialists	118	0	0	0	0	0	0
13 Financial Specialists	72	0	0	0	0	0	0
15 Computer and Mathematical Occupations	9	0	0	0	0	0	0
17 Architecture and Engineering Occupations	0	0	0	0	0	0	0
19 Life, Physical, and Social Science Occupations	0	0	0	0	0	0	0
21 Community and Social Science Occupations	380	36	0	0	0	0	0
27 Arts, Design, Entertainment, Sports, and Media Occupations	69	0	0	0	0	0	0
29 Healthcare Practitioners and Technical Occupations	192	0	0	0	0	0	0
31 Healthcare Support Occupations	340	0	0	0	0	0	0
33 Protective Service Occupations	316	15	0	0	15	0	0
35 Food Preparation and Serving Occupations	511	170	0	151	0	19	0
37 Building and Ground Cleaning and Maintenance Occupations	1,168	0	0	0	0	0	0
39 Personal Care and Service Occupations	592	43	0	43	0	0	0
41 Sales Occupations	2,118	301	38	215	17	0	31
43 Office and Administrative Support Occupations	1,812	56	0	7	44	0	4
45 Farming, Fishing, and Forestry Occupations	5,271	9	9	0	0	0	0
47 Construction Trades	1,170	0	0	0	0	0	0
47 Extraction Workers	48	0	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	458	0	0	0	0	0	0
51 Production Occupations	887	23	23	0	0	0	0
53 Transportation and Material Moving Occupations	2,555	0	0	0	0	0	0
55 Military Specific Occupations	40	0	0	0	0	0	0

Broad Occupational Categories	Specialists					
	Sub-Total (inc. BA+)	<HS	HS	Some Coll OUT	Some Coll IN	AA
Total	6,137	2,327	2,250	721	332	330
11 Management Occupations	0	0	0	0	0	0
13 Business Operations Specialists	118	0	118	0	0	0
13 Financial Specialists	72	0	0	0	0	60
15 Computer and Mathematical Occupations	9	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	141	0	41	0	33	0
27 Arts, Design, Entertainment, Sports, and Media Occupations	69	0	0	69	0	0
29 Healthcare Practitioners and Technical Occupations	192	0	81	0	10	83
31 Healthcare Support Occupations	0	0	0	0	0	0
33 Protective Service Occupations	134	47	0	27	37	0
35 Food Preparation and Serving Occupations	163	36	106	4	17	0
37 Building and Ground Cleaning and Maintenance Occupations	0	0	0	0	0	0
39 Personal Care and Service Occupations	136	106	3	27	0	0
41 Sales Occupations	49	0	21	5	4	0
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	1,170	632	457	81	0	0
47 Extraction Workers	48	45	3	0	0	0
49 Installation, Maintenance, and Repair Workers	415	102	261	0	0	51
51 Production Occupations	864	193	524	69	0	79
53 Transportation and Material Moving Occupations	2,555	1,167	634	439	231	56
55 Military Specific Occupations	0	0	0	0	0	0

Broad Occupational Categories	Support					
	Sub-Total (inc. BA+)	<HS	HS	Some Coll OUT	Some Coll IN	AA
Total	11,338	5,306	2,859	1,582	485	556
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	203	43	59	45	10	0
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	340	101	154	63	22	0
33 Protective Service Occupations	167	31	67	20	0	49
35 Food Preparation and Serving Occupations	178	43	95	14	26	0
37 Building and Ground Cleaning and Maintenance Occupations	1,168	295	339	471	0	63
39 Personal Care and Service Occupations	413	52	89	90	0	33
41 Sales Occupations	1,768	663	431	247	59	122
43 Office and Administrative Support Occupations	1,756	351	430	501	143	262
45 Farming, Fishing, and Forestry Occupations	5,263	3,725	1,151	131	185	28
47 Construction Trades	0	0	0	0	0	0
47 Extraction Workers	0	0	0	0	0	0
49 Installation, Maintenance, and Repair Workers	43	0	43	0	0	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	40	0	0	0	40	0

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

Appendix Table 21- Long-Term Unemployed Labor Force by Educational Attainment

	Total	<HS	HS	Some Coll OUT	Some Coll IN	AA	BA or up
Long-Term Unemployed persons	4,253	1,415	1,434	673	393	75	263

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

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

OCCCSOC	Occupation	Total	01 Less than high school	02 High school diploma or equivalent	03 Some college, no degree	04 Postsecondary non-degree award	05 Associate's degree	06 Bachelor's degree or higher
Total		14,637	7,267	4,052	155	1,337	424	1,401
11-1021	General and Operations Managers	269	0	0	0	0	0	269
11-9111	Medical and Health Services Managers	53	0	0	0	0	0	53
13-1111	Management Analysts	64	0	0	0	0	0	64
13-1161	Market Research Analysts and Marketing Specialists	58	0	0	0	0	0	58
13-1199	Business Operations Specialists, All Other	69	0	69	0	0	0	0
13-2011	Accountants and Auditors	100	0	0	0	0	0	100
21-1093	Social and Human Service Assistants	101	0	101	0	0	0	0
25-1099	Postsecondary Teachers	52	0	0	0	0	0	52
25-2012	Kindergarten Teachers, Except Special Education	55	0	0	0	0	0	55
25-2021	Elementary School Teachers, Except Special Education	316	0	0	0	0	0	316
25-2022	Middle School Teachers, Except Special and Career/Technical Education	93	0	0	0	0	0	93
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	113	0	0	0	0	0	113
25-3098	Substitute Teachers	117	0	0	0	0	0	117
25-9041	Teacher Assistants	155	0	0	155	0	0	0
29-1141	Registered Nurses	424	0	0	0	0	424	0
29-2041	Emergency Medical Technicians and Paramedics	105	0	0	0	105	0	0

OCCCSOC	Occupation	Total	01 Less than high school	02 High school diploma or equivalent	03 Some college, no degree	04 Postsecondary non-degree award	05 Associate's degree	06 Bachelor's degree or higher
29-2052	Pharmacy Technicians	82	0	82	0	0	0	0
29-2061	Licensed Practical and Licensed Vocational Nurses	169	0	0	0	169	0	0
31-1011	Home Health Aides	244	244	0	0	0	0	0
31-1014	Nursing Assistants	360	0	0	0	360	0	0
31-9091	Dental Assistants	62	0	0	0	62	0	0
31-9092	Medical Assistants	103	0	0	0	103	0	0
33-3051	Police and Sheriff's Patrol Officers	103	0	103	0	0	0	0
33-9032	Security Guards	80	0	80	0	0	0	0
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	194	0	194	0	0	0	0
35-2011	Cooks, Fast Food	108	108	0	0	0	0	0
35-2012	Cooks, Institution and Cafeteria	76	76	0	0	0	0	0
35-2014	Cooks, Restaurant	164	164	0	0	0	0	0
35-2021	Food Preparation Workers	111	111	0	0	0	0	0
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	1007	1007	0	0	0	0	0
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	59	59	0	0	0	0	0
35-3031	Waiters and Waitresses	219	219	0	0	0	0	0
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	57	57	0	0	0	0	0
35-9021	Dishwashers	68	68	0	0	0	0	0
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	360	360	0	0	0	0	0

OCCCSOC	Occupation	Total	01 Less than high school	02 High school diploma or equivalent	03 Some college, no degree	04 Postsecondary non-degree award	05 Associate's degree	06 Bachelor's degree or higher
37-2012	Maids and Housekeeping Cleaners	125	125	0	0	0	0	0
39-9011	Childcare Workers	72	0	72	0	0	0	0
39-9021	Personal Care Aides	913	913	0	0	0	0	0
39-9032	Recreation Workers	57	0	0	0	0	0	57
41-1011	First-Line Supervisors of Retail Sales Workers	343	0	343	0	0	0	0
41-2011	Cashiers	558	558	0	0	0	0	0
41-2021	Counter and Rental Clerks	75	75	0	0	0	0	0
41-2031	Retail Salespersons	1,653	1,653	0	0	0	0	0
41-3099	Sales Representatives, Services, All Other	94	0	94	0	0	0	0
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	52	0	0	0	0	0	52
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	151	0	151	0	0	0	0
43-1011	First-Line Supervisors of Office and Administrative Support Workers	174	0	174	0	0	0	0
43-3021	Billing and Posting Clerks	72	0	72	0	0	0	0
43-3031	Bookkeeping, Accounting, and Auditing Clerks	175	0	175	0	0	0	0
43-4051	Customer Service Representatives	259	0	259	0	0	0	0
43-4171	Receptionists and Information Clerks	72	0	72	0	0	0	0
43-5071	Shipping, Receiving, and Traffic Clerks	89	0	89	0	0	0	0
43-5081	Stock Clerks and Order Fillers	339	339	0	0	0	0	0
43-6013	Medical Secretaries	115	0	115	0	0	0	0

OCCCSOC	Occupation	Total	01 Less than high school	02 High school diploma or equivalent	03 Some college, no degree	04 Postsecondary non-degree award	05 Associate's degree	06 Bachelor's degree or higher
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	253	0	253	0	0	0	0
43-9061	Office Clerks, General	226	0	226	0	0	0	0
45-2091	Agricultural Equipment Operators	57	57	0	0	0	0	0
47-2081	Drywall and Ceiling Tile Installers	78	78	0	0	0	0	0
47-2152	Plumbers, Pipefitters, and Steamfitters	94	0	94	0	0	0	0
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	56	0	56	0	0	0	0
49-3023	Automotive Service Technicians and Mechanics	58	0	58	0	0	0	0
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	59	0	0	0	59	0	0
49-9041	Industrial Machinery Mechanics	188	0	188	0	0	0	0
49-9071	Maintenance and Repair Workers, General	173	0	173	0	0	0	0
51-1011	First-Line Supervisors of Production and Operating Workers	64	0	0	0	64	0	0
51-2092	Team Assemblers	86	0	86	0	0	0	0
51-3092	Food Batchmakers	84	0	84	0	0	0	0
51-6011	Laundry and Dry-Cleaning Workers	54	54	0	0	0	0	0
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	83	0	83	0	0	0	0
51-9111	Packaging and Filling Machine Operators and Tenders	170	0	170	0	0	0	0
51-9196	Paper Goods Machine Setters, Operators, and Tenders	53	0	53	0	0	0	0
51-9198	Helpers--Production Workers	64	64	0	0	0	0	0

OCCCSOC	Occupation	Total	01 Less than high school	02 High school diploma or equivalent	03 Some college, no degree	04 Postsecondary non-degree award	05 Associate's degree	06 Bachelor's degree or higher
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	55	0	55	0	0	0	0
53-3022	Bus Drivers, School or Special Client	63	0	63	0	0	0	0
53-3031	Driver/Sales Workers	65	0	65	0	0	0	0
53-3032	Heavy and Tractor-Trailer Truck Drivers	414	0	0	0	414	0	0
53-3033	Light Truck or Delivery Services Drivers	99	0	99	0	0	0	0
53-7051	Industrial Truck and Tractor Operators	71	71	0	0	0	0	0
53-7061	Cleaners of Vehicles and Equipment	108	108	0	0	0	0	0
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	497	497	0	0	0	0	0
53-7064	Packers and Packagers, Hand	204	204	0	0	0	0	0

Appendix Table 23 - Unemployed Labor Force-to-Job Openings Skills Match Tulare County

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
		4,016		12,780	6,464	5,896	3,836	1,459	599	469	521
53-7081	Refuse and Recyclable Material Collectors	7	Less than high school	26	26	26	0	0	0	0	0
53-7064	Packers and Packagers, Hand	65	Less than high school	880	647	450	197	196	37	0	0
53-7063	Machine Feeders and Offbearers	7	Less than high school	30	30	30	0	0	0	0	0
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	145	Less than high school	654	449	202	247	139	10	56	0
53-7061	Cleaners of Vehicles and Equipment	27	Less than high school	159	86	20	66	73	0	0	0
53-6031	Automotive and Watercraft Service Attendants	5	Less than high school	19	19	19	0	0	0	0	0
53-1000	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	10	High school diploma or equivalent	0	0	0	0	0	0	0	0
53-1000	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	14	High school diploma or equivalent	0	0	0	0	0	0	0	0
51-91XX	Production Workers, All Other	7	Associate's degree	296	0	28	238	29	0	0	0
51-9198	Helpers--Production Workers	18	Less than high school	0	0	0	0	0	0	0	0
51-9020	Mixing and Blending Machine Setters, Operators, and Tenders	6	High school diploma or equivalent	0	0	0	0	0	0	0	0
51-6011	Laundry and Dry-Cleaning Workers	11	Less than high school	0	0	0	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
51-4120	Welders, Cutters, Solderers, and Brazers	10	High school diploma or equivalent	196	186	10	157	29	0	0	0
51-4041	Machinists	7	High school diploma or equivalent	0	0	0	0	0	0	0	0
51-3011	Bakers	7	Less than high school	0	0	0	0	0	0	0	0
51-2090	Team Assemblers	24	High school diploma or equivalent	69	48	20	48	0	0	0	0
51-1011	First-Line Supervisors of Production and Operating Workers	14	Postsecondary non-degree award	23	0	23	0	0	0	0	0
49-9098	Helpers--Installation, Maintenance, and Repair Workers	5	High school diploma or equivalent	0	0	0	0	0	0	0	0
49-9071	Maintenance and Repair Workers, General	47	High school diploma or equivalent	0	0	0	0	0	0	0	0
49-9043	Maintenance Workers, Machinery	5	High school diploma or equivalent	0	0	0	0	0	0	0	0
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	15	Postsecondary non-degree award	93	0	50	43	0	0	0	0
49-3090	Tire Repairers and Changers	11	High school diploma or equivalent	4	0	4	0	0	0	0	0
49-3040	Mobile Heavy Equipment Mechanics, Except Engines	5	High school diploma or equivalent	0	0	0	0	0	0	0	0
49-3040	Farm Equipment Mechanics and Service	8	High school	0	0	0	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
	Technicians		diploma or equivalent								
49-3023	Automotive Service Technicians and Mechanics	21	High school diploma or equivalent	33	33	0	33	0	0	0	0
49-2020	Telecommunications Equipment Installers and Repairers, Except Line Installers	6	Associate's degree	10	0	0	10	0	0	0	0
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	17	High school diploma or equivalent	0	0	0	0	0	0	0	0
47-2111	Electricians	16	High school diploma or equivalent	21	21	0	0	21	0	0	0
47-2080	Drywall and Ceiling Tile Installers	11	Less than high school	110	110	91	20	0	0	0	0
47-207X	Operating Engineers and Other Construction Equipment Operators	8	High school diploma or equivalent	0	0	0	0	0	0	0	0
47-2061	Construction Laborers	30	Less than high school	655	655	422	233	0	0	0	0
47-2031	Carpenters	11	High school diploma or equivalent	132	132	0	96	36	0	0	0
45-20XX	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	739	High school diploma or equivalent	4,634	971	3,449	798	131	185	28	41
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	17	High school diploma or equivalent	9	0	9	0	0	0	0	0
43-9061	Office Clerks, General	81	High school diploma or equivalent	67	16	0	0	16	7	44	0
43-9041	Insurance Claims and Policy Processing Clerks	10	High school	57	30	0	0	30	0	27	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
			diploma or equivalent								
43-6010	Executive Secretaries and Executive Administrative Assistants	7	High school diploma or equivalent	232	158	0	22	136	74	0	0
43-5081	Stock Clerks and Order Fillers	121	Less than high school	232	142	47	95	73	17	0	0
43-5030	Dispatchers, Except Police, Fire, and Ambulance	12	High school diploma or equivalent	0	0	0	0	0	0	0	0
43-5030	Police, Fire, and Ambulance Dispatchers	5	High school diploma or equivalent	0	0	0	0	0	0	0	0
43-4121	Library Assistants, Clerical	6	High school diploma or equivalent	37	37	0	0	0	0	0	37
43-4081	Hotel, Motel, and Resort Desk Clerks	9	High school diploma or equivalent	0	0	0	0	0	0	0	0
43-4051	Customer Service Representatives	62	High school diploma or equivalent	165	68	17	68	0	0	80	0
43-3071	Tellers	15	High school diploma or equivalent	0	0	0	0	0	0	0	0
43-3051	Payroll and Timekeeping Clerks	8	High school diploma or equivalent	0	0	0	0	0	0	0	0
43-3031	Bookkeeping, Accounting, and Auditing Clerks	33	High school diploma or equivalent	12	7	0	0	7	5	0	0
43-3011	Bill and Account Collectors	12	High school diploma or	0	0	0	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
			equivalent								
43-1011	First-Line Supervisors of Office and Administrative Support Workers	44	High school diploma or equivalent	56	52	0	7	44	0	4	0
41-4010	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	35	Bachelor's degree	60	0	0	0	60	0	0	0
41-4010	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	10	Bachelor's degree	60	0	0	0	60	0	0	0
41-3099	Sales Representatives, Services, All Other	24	High school diploma or equivalent	151	131	0	0	0	20	0	131
41-2021	Counter and Rental Clerks	24	Less than high school	0	0	0	0	0	0	0	0
41-2010	Cashiers	246	Less than high school	723	652	329	323	19	0	51	0
41-1011	First-Line Supervisors of Retail Sales Workers	61	High school diploma or equivalent	252	183	38	166	17	0	31	0
39-9021	Personal Care Aides	104	Less than high school	185	95	25	70	90	0	0	0
39-9011	Childcare Workers	34	High school diploma or equivalent	125	93	0	0	0	0	33	93
37-2012	Maids and Housekeeping Cleaners	24	Less than high school	96	96	40	57	0	0	0	0
37-1012	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	78	Less than high school	0	0	0	0	0	0	0	0
35-9021	Dishwashers	29	Less than high school	65	65	10	56	0	0	0	0
35-90XX	Dining Room and Cafeteria Attendants and	26	Less than high	12	12	12	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
	Bartender Helpers		school								
35-3041	Food Servers, Nonrestaurant	8	Less than high school	0	0	0	0	0	0	0	0
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	26	Less than high school	21	21	21	0	0	0	0	0
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	269	Less than high school	35	21	0	21	14	0	0	0
35-3011	Bartenders	10	Less than high school	0	0	0	0	0	0	0	0
35-2021	Food Preparation Workers	30	Less than high school	98	82	0	82	0	17	0	0
35-2010	Cooks, Restaurant	33	Less than high school	65	60	36	25	4	0	0	0
35-2010	Cooks, Institution and Cafeteria	15	Less than high school	65	60	36	25	4	0	0	0
35-2010	Cooks, Fast Food	37	Less than high school	65	60	36	25	4	0	0	0
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	43	High school diploma or equivalent	170	151	0	151	0	19	0	0
33-909X	Protective Service Workers, All Other	23	High school diploma or equivalent	0	0	0	0	0	0	0	0
33-9030	Security Guards	21	High school diploma or equivalent	121	62	31	43	20	0	28	0
33-3050	Police and Sheriff's Patrol Officers	49	High school diploma or equivalent	64	27	0	0	27	37	0	0
33-3010	Correctional Officers and Jailers	11	High school diploma or equivalent	17	17	0	0	0	0	0	17

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
33-2011	Firefighters	14	Postsecondary non-degree award	52	5	47	0	0	0	0	5
31-9092	Medical Assistants	27	Postsecondary non-degree award	76	0	0	76	0	0	0	0
31-9091	Dental Assistants	14	Postsecondary non-degree award	0	0	0	0	0	0	0	0
31-1010	Nursing Assistants	65	Less than high school	186	122	101	21	42	22	0	0
31-1010	Home Health Aides	32	Less than high school	186	122	101	21	42	22	0	0
29-2071	Medical Records and Health Information Technicians	6	Postsecondary non-degree award	0	0	0	0	0	0	0	0
29-2061	Licensed Practical and Licensed Vocational Nurses	34	Postsecondary non-degree award	0	0	0	0	0	0	0	0
29-2050	Psychiatric Technicians	6	Associate's degree	27	0	0	27	0	0	0	0
29-2041	Emergency Medical Technicians and Paramedics	19	Postsecondary non-degree award	0	0	0	0	0	0	0	0
29-2010	Medical and Clinical Laboratory Technicians	6	Associate's degree	0	0	0	0	0	0	0	0
29-11XX	Medical and Clinical Laboratory Technologists	5	Master's degree	0	0	0	0	0	0	0	0
29-11XX	Nurse Practitioners	6	Master's degree	0	0	0	0	0	0	0	0
29-1141	Registered Nurses	87	Associate's degree	54	44	0	0	0	10	26	18

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
29-1060	Family and General Practitioners	6	Doctoral or professional degree	0	0	0	0	0	0	0	0
29-1020	Dentists, General	7	Doctoral or professional degree	0	0	0	0	0	0	0	0
25-9041	Teacher Assistants	66	Some college, no degree	160	55	0	59	45	10	0	46
25-3000	Teachers and Instructors, All Other	9	Bachelor's degree	37	17	0	0	0	20	0	17
25-3000	Substitute Teachers	54	Bachelor's degree	37	17	0	0	0	20	0	17
25-3000	Self-Enrichment Education Teachers	7	Bachelor's degree	37	17	0	0	0	20	0	17
25-2030	Secondary School Teachers, Except Special and Career/Technical Education	51	Bachelor's degree	0	0	0	0	0	0	0	0
25-2020	Middle School Teachers, Except Special and Career/Technical Education	24	Bachelor's degree	0	0	0	0	0	0	0	0
25-2020	Elementary School Teachers, Except Special Education	97	Bachelor's degree	0	0	0	0	0	0	0	0
25-2010	Kindergarten Teachers, Except Special Education	21	Associate's degree	14	0	0	0	0	14	0	0
25-2010	Preschool Teachers, Except Special Education	14	Associate's degree	14	0	0	0	0	14	0	0
25-1000	Postsecondary Teachers	16	Doctoral or professional degree	0	0	0	0	0	0	0	0
23-10XX	Lawyers	7	Doctoral or professional degree	36	36	0	0	0	0	0	36
21-1020	Mental Health and Substance Abuse Social Workers	7	Bachelor's degree	23	0	0	23	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
21-1020	Child, Family, and School Social Workers	9	Bachelor's degree	23	0	0	23	0	0	0	0
21-1010	Rehabilitation Counselors	10	High school diploma or equivalent	18	18	0	18	0	0	0	0
21-1010	Educational, Guidance, School, and Vocational Counselors	7	High school diploma or equivalent	18	18	0	18	0	0	0	0
21-1010	Substance Abuse and Behavioral Disorder Counselors	6	High school diploma or equivalent	18	18	0	18	0	0	0	0
19-40YY	Forest and Conservation Technicians	8	Associate's degree	0	0	0	0	0	0	0	0
19-3030	Clinical, Counseling, and School Psychologists	6	Doctoral or professional degree	0	0	0	0	0	0	0	0
15-1121	Computer Systems Analysts	7	Bachelor's degree	9	9	0	0	0	0	0	9
13-2070	Loan Officers	5	Bachelor's degree	60	0	0	0	0	0	60	0
13-1199	Business Operations Specialists, All Other	13	High school diploma or equivalent	0	0	0	0	0	0	0	0
13-1111	Management Analysts	9	Bachelor's degree	0	0	0	0	0	0	0	0
13-1070	Human Resources Specialists	10	Bachelor's degree	61	0	0	61	0	0	0	0
13-1051	Cost Estimators	10	Bachelor's degree	0	0	0	0	0	0	0	0
11-9151	Social and Community Service Managers	6	Bachelor's degree	0	0	0	0	0	0	0	0
11-9111	Medical and Health Services Managers	10	Bachelor's degree	0	0	0	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
11-9051	Food Service Managers	7	High school diploma or equivalent	17	0	0	0	17	0	0	0
11-9021	Construction Managers	5	Bachelor's degree	0	0	0	0	0	0	0	0
11-3071	Transportation, Storage, and Distribution Managers	7	High school diploma or equivalent	16	0	0	16	0	0	0	0
11-3051	Industrial Production Managers	6	Bachelor's degree	0	0	0	0	0	0	0	0
11-3031	Financial Managers	9	Bachelor's degree	74	37	0	37	0	0	0	37
11-3011	Administrative Services Managers	8	Bachelor's degree	0	0	0	0	0	0	0	0
11-1021	General and Operations Managers	63	Bachelor's degree	0	0	0	0	0	0	0	0
11-10XX	Chief Executives	6	Bachelor's degree	0	0	0	0	0	0	0	0
17-2051	Operating engineers/civil engineers	1	Bachelor's degree	0	0	0	0	0	0	0	0
47-1011	First-line supervisors/managers of construction trades and extraction workers	4	High school diploma or equivalent	0	0	0	0	0	0	0	0
47-2061	Construction laborers	12	Less than high school	0	0	0	0	0	0	0	0
47-207X	Other construction equipment operators	5	High school diploma or equivalent	0	0	0	0	0	0	0	0
47-2031	Carpenters	2	High school diploma or equivalent	0	0	0	0	0	0	0	0
53-7051	Truck drivers, heavy and tractor-trailer	2	Less than high school	169	115	115	0	31	22	0	0

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

Appendix Table 24- Part-Time Labor Force-to-Job Openings Skills Match Tulare County

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
		4,016		51,932	25,417	17,783	13,326	6,544	4,823	3,238	5,235
53-7081	Refuse and Recyclable Material Collectors	7	Less than high school	22	22	22	0	0	0	0	0
53-7064	Packers and Packagers, Hand	65	Less than high school	1,443	1,254	837	417	188	0	0	0
53-7063	Machine Feeders and Offbearers	7	Less than high school	21	21	21	0	0	0	0	0
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	145	Less than high school	1,332	819	230	561	452	61	0	28
53-7061	Cleaners of Vehicles and Equipment	27	Less than high school	209	116	116	0	33	51	9	0
53-6031	Automotive and Watercraft Service Attendants	5	Less than high school	101	51	0	51	50	0	0	0
53-1000	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	10	High school diploma or equivalent	10	10	0	0	10	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
53-1000	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	14	High school diploma or equivalent	10	10	0	0	10	0	0	0
51-91XX	Production Workers, All Other	7	Associate's degree	294	84	46	164	0	0	76	8
51-9198	Helpers--Production Workers	18	Less than high school	0	0	0	0	0	0	0	0
51-9020	Mixing and Blending Machine Setters, Operators, and Tenders	6	High school diploma or equivalent	0	0	0	0	0	0	0	0
51-6011	Laundry and Dry-Cleaning Workers	11	Less than high school	14	14	14	0	0	0	0	0
51-4120	Welders, Cutters, Solderers, and Brazers	10	High school diploma or equivalent	311	270	40	270	0	0	0	0
51-4041	Machinists	7	High school diploma or equivalent	20	0	20	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
51-3011	Bakers	7	Less than high school	175	163	0	163	0	12	0	0
51-2090	Team Assemblers	24	High school diploma or equivalent	116	53	64	0	53	0	0	0
51-1011	First-Line Supervisors of Production and Operating Workers	14	Postsecondary non-degree award	124	90	34	0	0	0	0	90
49-9098	Helpers--Installation, Maintenance, and Repair Workers	5	High school diploma or equivalent	0	0	0	0	0	0	0	0
49-9071	Maintenance and Repair Workers, General	47	High school diploma or equivalent	0	0	0	0	0	0	0	0
49-9043	Maintenance Workers, Machinery	5	High school diploma or equivalent	0	0	0	0	0	0	0	0
49-9021	Heating, Air Conditioning, and Refrigeration	15	Postsecondary non-degree	24	0	24	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
	Mechanics and Installers		award								
49-3090	Tire Repairers and Changers	11	High school diploma or equivalent	0	0	0	0	0	0	0	0
49-3040	Mobile Heavy Equipment Mechanics, Except Engines	5	High school diploma or equivalent	134	119	0	44	75	0	15	0
49-3040	Farm Equipment Mechanics and Service Technicians	8	High school diploma or equivalent	134	119	0	44	75	0	15	0
49-3023	Automotive Service Technicians and Mechanics	21	High school diploma or equivalent	137	128	9	128	0	0	0	0
49-2020	Telecommunications Equipment Installers and Repairers, Except Line Installers	6	Associate's degree	0	0	0	0	0	0	0	0
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	17	High school diploma or equivalent	0	0	0	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
47-2111	Electricians	16	High school diploma or equivalent	168	137	31	137	0	0	0	0
47-2080	Drywall and Ceiling Tile Installers	11	Less than high school	26	26	0	26	0	0	0	0
47-207X	Operating Engineers and Other Construction Equipment Operators	8	High school diploma or equivalent	71	25	0	0	25	0	46	0
47-2061	Construction Laborers	30	Less than high school	899	763	514	224	40	60	37	25
47-2031	Carpenters	11	High school diploma or equivalent	248	160	88	44	74	0	0	42
45-20XX	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	739	High school diploma or equivalent	16,524	4,571	11,867	3,952	601	69	16	17
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	17	High school diploma or	309	146	162	114	33	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
			equivalent								
43-9061	Office Clerks, General	81	High school diploma or equivalent	633	314	0	181	69	195	124	64
43-9041	Insurance Claims and Policy Processing Clerks	10	High school diploma or equivalent	40	40	0	0	40	0	0	0
43-6010	Executive Secretaries and Executive Administrative Assistants	7	High school diploma or equivalent	615	387	78	99	154	34	115	134
43-5081	Stock Clerks and Order Fillers	121	Less than high school	691	555	168	378	96	14	26	10
43-5030	Dispatchers, Except Police, Fire, and Ambulance	12	High school diploma or equivalent	0	0	0	0	0	0	0	0
43-5030	Police, Fire, and Ambulance Dispatchers	5	High school diploma or equivalent	0	0	0	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
43-4121	Library Assistants, Clerical	6	High school diploma or equivalent	107	0	0	0	0	0	107	0
43-4081	Hotel, Motel, and Resort Desk Clerks	9	High school diploma or equivalent	97	0	31	0	0	28	37	0
43-4051	Customer Service Representatives	62	High school diploma or equivalent	295	208	18	122	42	69	0	44
43-3071	Tellers	15	High school diploma or equivalent	288	235	0	122	90	20	33	23
43-3051	Payroll and Timekeeping Clerks	8	High school diploma or equivalent	105	105	0	96	9	0	0	0
43-3031	Bookkeeping, Accounting, and Auditing Clerks	33	High school diploma or equivalent	580	474	24	334	102	0	82	39

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
43-3011	Bill and Account Collectors	12	High school diploma or equivalent	17	0	0	0	0	0	17	0
43-1011	First-Line Supervisors of Office and Administrative Support Workers	44	High school diploma or equivalent	151	0	0	0	0	67	84	0
41-4010	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	35	Bachelor's degree	338	0	137	34	0	34	133	0
41-4010	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	10	Bachelor's degree	338	0	137	34	0	34	133	0
41-3099	Sales Representatives, Services, All Other	24	High school diploma or equivalent	146	76	70	0	76	0	0	0
41-2021	Counter and Rental Clerks	24	Less than high school	21	21	0	21	0	0	0	0
41-2010	Cashiers	246	Less than high	2,591	1,200	328	872	323	871	198	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
			school								
41-1011	First-Line Supervisors of Retail Sales Workers	61	High school diploma or equivalent	526	344	67	89	107	26	89	148
39-9021	Personal Care Aides	104	Less than high school	1,273	1,012	340	617	106	108	47	55
39-9011	Childcare Workers	34	High school diploma or equivalent	1,194	670	207	284	330	214	102	56
37-2012	Maids and Housekeeping Cleaners	24	Less than high school	433	368	122	219	46	19	0	26
37-1012	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	78	Less than high school	104	39	0	39	65	0	0	0
35-9021	Dishwashers	29	Less than high school	96	15	0	0	0	80	0	15
35-90XX	Dining Room and Cafeteria Attendants and Bartender Helpers	26	Less than high school	187	106	98	0	62	0	19	8

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
35-3041	Food Servers, Nonrestaurant	8	Less than high school	98	81	49	32	4	13	0	0
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	26	Less than high school	155	93	93	0	40	22	0	0
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	269	Less than high school	273	240	124	116	0	33	0	0
35-3011	Bartenders	10	Less than high school	148	72	0	72	0	76	0	0
35-2021	Food Preparation Workers	30	Less than high school	693	530	87	443	114	49	0	0
35-2010	Cooks, Restaurant	33	Less than high school	1,315	715	317	398	210	377	14	0
35-2010	Cooks, Institution and Cafeteria	15	Less than high school	1,315	715	317	398	210	377	14	0
35-2010	Cooks, Fast Food	37	Less than high school	1,315	715	317	398	210	377	14	0
35-1012	First-Line Supervisors of Food Preparation	43	High school diploma or	142	142	0	47	95	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
	and Serving Workers		equivalent								
33-909X	Protective Service Workers, All Other	23	High school diploma or equivalent	0	0	0	0	0	0	0	0
33-9030	Security Guards	21	High school diploma or equivalent	343	218	30	86	132	32	63	0
33-3050	Police and Sheriff's Patrol Officers	49	High school diploma or equivalent	110	60	0	27	33	50	0	0
33-3010	Correctional Officers and Jailers	11	High school diploma or equivalent	156	156	0	105	51	0	0	0
33-2011	Firefighters	14	Postsecondary non-degree award	327	170	0	127	0	170	30	0
31-9092	Medical Assistants	27	Postsecondary non-degree	76	0	0	0	0	0	76	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
			award								
31-9091	Dental Assistants	14	Postsecondary non-degree award	331	228	13	27	228	0	63	0
31-1010	Nursing Assistants	65	Less than high school	654	297	99	176	140	100	117	22
31-1010	Home Health Aides	32	Less than high school	654	297	99	176	140	100	117	22
29-2071	Medical Records and Health Information Technicians	6	Postsecondary non-degree award	23	0	0	0	0	0	23	0
29-2061	Licensed Practical and Licensed Vocational Nurses	34	Postsecondary non-degree award	194	108	0	87	108	0	0	0
29-2050	Psychiatric Technicians	6	Associate's degree	113	92	0	0	21	0	92	0
29-2041	Emergency Medical Technicians and Paramedics	19	Postsecondary non-degree	86	86	0	0	86	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
			award								
29-2010	Medical and Clinical Laboratory Technicians	6	Associate's degree	28	0	0	0	28	0	0	0
29-11XX	Medical and Clinical Laboratory Technologists	5	Master's degree	0	0	0	0	0	0	0	0
29-11XX	Nurse Practitioners	6	Master's degree	0	0	0	0	0	0	0	0
29-1141	Registered Nurses	87	Associate's degree	400	382	0	0	0	18	185	197
29-1060	Family and General Practitioners	6	Doctoral or professional degree	36	36	0	0	0	0	0	36
29-1020	Dentists, General	7	Doctoral or professional degree	115	115	0	0	0	0	0	115
25-9041	Teacher Assistants	66	Some college, no degree	1,165	229	80	191	368	181	296	48

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
25-3000	Teachers and Instructors, All Other	9	Bachelor's degree	484	147	0	88	29	195	26	147
25-3000	Substitute Teachers	54	Bachelor's degree	484	147	0	88	29	195	26	147
25-3000	Self-Enrichment Education Teachers	7	Bachelor's degree	484	147	0	88	29	195	26	147
25-2030	Secondary School Teachers, Except Special and Career/Technical Education	51	Bachelor's degree	494	405	0	0	0	26	64	405
25-2020	Middle School Teachers, Except Special and Career/Technical Education	24	Bachelor's degree	1,521	1,263	0	0	193	0	65	1,263
25-2020	Elementary School Teachers, Except Special Education	97	Bachelor's degree	1,521	1,263	0	0	193	0	65	1,263
25-2010	Kindergarten Teachers, Except Special Education	21	Associate's degree	131	9	38	0	63	22	0	9
25-2010	Preschool Teachers, Except Special Education	14	Associate's degree	131	9	38	0	63	22	0	9
25-1000	Postsecondary Teachers	16	Doctoral or professional	278	170	0	0	0	108	0	170

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
			degree								
23-10XX	Lawyers	7	Doctoral or professional degree	85	85	0	0	0	0	0	85
21-1020	Mental Health and Substance Abuse Social Workers	7	Bachelor's degree	185	78	0	0	79	0	28	78
21-1020	Child, Family, and School Social Workers	9	Bachelor's degree	185	78	0	0	79	0	28	78
21-1010	Rehabilitation Counselors	10	High school diploma or equivalent	175	114	0	55	19	0	62	40
21-1010	Educational, Guidance, School, and Vocational Counselors	7	High school diploma or equivalent	175	114	0	55	19	0	62	40
21-1010	Substance Abuse and Behavioral Disorder Counselors	6	High school diploma or equivalent	175	114	0	55	19	0	62	40
19-40YY	Forest and Conservation Technicians	8	Associate's	32	0	0	0	32	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College- OUT	04 Some College- Attending	05 AA	06 BA or up
			degree								
19-3030	Clinical, Counseling, and School Psychologists	6	Doctoral or professional degree	6	6	0	0	0	0	0	6
15-1121	Computer Systems Analysts	7	Bachelor's degree	0	0	0	0	0	0	0	0
13-2070	Loan Officers	5	Bachelor's degree	19	0	0	0	0	0	60	0
13-1199	Business Operations Specialists, All Other	13	High school diploma or equivalent	13	0	0	0	0	0	0	0
13-1111	Management Analysts	9	Bachelor's degree	56	0	0	0	0	0	0	0
13-1070	Human Resources Specialists	10	Bachelor's degree	85	0	0	61	0	0	0	0
13-1051	Cost Estimators	10	Bachelor's degree	0	0	0	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
11-9151	Social and Community Service Managers	6	Bachelor's degree	0	0	0	0	0	0	0	0
11-9111	Medical and Health Services Managers	10	Bachelor's degree	379	0	0	0	0	0	0	0
11-9051	Food Service Managers	7	High school diploma or equivalent	58	0	0	0	17	0	0	0
11-9021	Construction Managers	5	Bachelor's degree	45	0	0	0	0	0	0	0
11-3071	Transportation, Storage, and Distribution Managers	7	High school diploma or equivalent	7	0	0	16	0	0	0	0
11-3051	Industrial Production Managers	6	Bachelor's degree	19	0	0	0	0	0	0	0
11-3031	Financial Managers	9	Bachelor's degree	121	37	0	37	0	0	0	37
11-3011	Administrative Services Managers	8	Bachelor's degree	23	0	0	0	0	0	0	0

OCCSOC	Occupation	Annual Openings	Required Education for Openings	Unemployed in Target Occupations	Unemployed Whose Education Matches Occupational Requirement	01 < HS\GED	02 HS\GED	03 Some College-OUT	04 Some College-Attending	05 AA	06 BA or up
11-1021	General and Operations Managers	63	Bachelor's degree	111	0	0	0	0	0	0	0
11-10XX	Chief Executives	6	Bachelor's degree	5	0	0	0	0	0	0	0
17-2051	Operating engineers/civil engineers	1	Bachelor's degree	28	0	0	0	0	0	0	0
47-1011	First-line supervisors/managers of construction trades and extraction workers	4	High school diploma or equivalent	126	0	0	0	0	0	0	0
47-2061	Construction laborers	12	Less than high school	0	0	0	0	0	0	0	0
47-207X	Other construction equipment operators	5	High school diploma or equivalent	0	0	0	0	0	0	0	0
47-2031	Carpenters	2	High school diploma or equivalent	0	0	0	0	0	0	0	0
53-7051	Truck drivers, heavy and tractor-trailer	2	Less than high school	283	115	115	0	31	22	0	0

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