

LOCAL WIB PLAN LABOR FORCE ANALYSIS

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Prepared for:

MONTEREY COUNTY WORKFORCE INVESTMENT BOARD

Submitted by:

APPLIED DEVELOPMENT ECONOMICS, INC.
255 Ygnacio Valley Road, Suite 200 ■ Walnut Creek, CA 94596
925.934.8712 ■ www.adeusa.com



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INTRODUCTION AND SUMMARY

In this labor force analysis report, Applied Development Economics (ADE) analyzes the latest employment trends, projections, occupational staffing patterns for jobs in Monterey County. This report includes 2012 to 2017 employment data by detailed North American Industry Classification System (NAICS) codes from the Economic Modeling Specialists Intl. (EMSI) dataset. The report is intended to assist the Monterey County WIB to prepare its Five-Year Local Plan. This report includes the following sections:

Assessment of Current Economic Conditions. Monterey County was significantly affected by the Great Recession and has had a slow recovery from the substantial drops in employment that occurred since 2008.

Description of certain population groups and their employment status. This chapter reports the number of employed persons based on their race, ethnicity, and age. In addition, the American Community Survey (ACS) provides the number of veterans in labor force, and their share of employment. The purpose of this section is to identify the employment related needs of these sub-population groups. An ACS 5-year estimate of 2007-2011 provides data about the size of the mentioned groups and their employment share.

Projection of economic trends between 2012 and 2017. This chapter provides employment information that analyzes industrial and occupational trends at the regional scale. This section focuses primarily on major industry clusters such as Agriculture, Tourism, and Education. In addition to these major job sectors, other employment sources that are projected to increase their employment levels between 2012 and 2017 are presented. For each industry a comprehensive list of occupations is included. This cross tabulation of industry and occupation presents the current and projected staffing pattern for the time frame of 2012 to 2017.

Description of the employment and workforce data and review of the analysis methodology.

As part of the Economic Strategic Plan process in late 2011, ADE completed a labor force analysis for the County of Monterey which identified key career pathways that would be in demand as the major industry clusters in the County expand. The four "pillars" of the County economy are agreed to be agriculture, tourism, educational institutions and research, and local businesses, primarily in the retail sector. In order to complete the present Local Workforce Development Plan, this report provides an analysis of projected employment trends between 2012 and 2017, based on data from EMSI. The analysis addresses leading the industry clusters in the county both in terms of total job growth and also occupational demand within each industry component of the clusters.

Summary of Projected Job Opportunities and Training Resources. The analysis addresses projected job opportunities for the major industry clusters in Monterey County: Agriculture, Tourism and Education, as well as other growth industries over the next five years, particularly health care. The table below summarizes the overall growth job growth for each cluster and selected high demand occupations.

SUMMARY OF MAJOR OCCUPATIONAL GROWTH OPPORTUNITIES		
Cluster	Occupation	Projected Growth 2012-2017
Tourism and Hospitality		1,528
	Food preparers/cooks	751
	Maids/desk clerks	175
	Lodging Mgrs/event planners	21
Education		625
	Teachers	456
Agriculture*		5,300
	Farmworkers	2,898
	Graders/sorters/packers	303
	Managers and supervisors	230
	Equipment operators/mechanics	345
	Processing machine operators	70
Health and Social Assistance		1,313
	Home health aids	186
	Registered nurses/LVNs, nursing aids	226
	Medical and dental assistants	38

Source: ADE, based on EMSI projections.

* Not counting projected loss of jobs in the agriculture support sector.

There are a number of training providers that can help to address the development of the workforce to fill these future jobs. Based on the Eligible Training Provider List, the following is a selection of existing programs.

TOURISM AND HOSPITALITY

- Monterey Peninsula College
- Shoreline Workforce Development Services
- International Bartender School

EDUCATION

- CSU Monterey Bay
- Chapman University

AGRICULTURE AND DISTRIBUTION

- Hartnell Community College
- Coastal Trucking
- Mission Trails ROP
- Center for Employment Training

HEALTH CARE

- Boston Reed
- Center for Employment Training
- Central Coast College
- Heald College School of Business
- Mission Trails ROP
- Monterey Peninsula College
- Pacific Grove Adult Education
- Salinas Adult School
- Soledad ROP
- The Spot

RECOMMENDED ADDITIONAL STEPS TO PREPARE THE LOCAL WORKFORCE PLAN

Based on the available data, it is difficult to fully identify the occupational and training gaps for specific labor force populations in the County. We would recommend the following steps to close these gaps with the existing training providers in Monterey County.

1. Compile information about the occupations and work history of unemployed individuals in the county, in order to determine what skills gaps may exist in this population segment relative to projected future job opportunities.
2. Review the descriptions of demographic groups contained in this report with social service agencies and training providers who work with these groups, to gain input on the particular challenges associated with preparing individuals within each group for available employment opportunities. The relevant social and demographic groups include, in particular, veterans, the disabled, youth and older workers, as well as non-white ethnic groups and non-English speakers.
3. Review the projected job opportunities with relevant training providers and employers in these industries to ascertain the true availability of training programs and resources to meet these needs. Develop a plan to address any identified gaps in training services.

LOCAL ECONOMIC CONDITIONS

EMPLOYMENT TRENDS

Employment in Monterey County peaked in 2008 and began its recovery as early as 2010 from the precipitous drop that occurred in 2009. However, this overall trend was really driven by farm employment, as non-farm jobs continued to decline until 2012 (Table 1).

TABLE 1 INDUSTRY EMPLOYMENT TRENDS IN MONTEREY COUNTY, 2007-2012							
SS-NAICS	INDUSTRY TITLE	2007	2008	2009	2010	2011	2012
01-000000	Total, All Industries	170,300	171,500	165,100	166,700	167,100	173,100
11-000000	Total Farm	41,600	43,300	42,800	45,100	46,300	51,000
00-000000	Total Nonfarm	128,700	128,200	122,200	121,600	120,800	122,100
05-000000	Total Private	97,200	95,900	89,600	89,000	89,100	90,900
06-000000	Goods Producing	13,300	12,400	10,500	9,900	9,600	9,600
10-000000	Mining and Logging	200	200	200	200	200	200
20-000000	Construction	7,000	6,100	4,600	4,100	3,800	4,200
30-000000	Manufacturing	6,100	6,100	5,700	5,600	5,600	5,200
32-000000	Nondurable Goods	4,400	4,500	4,300	4,200	4,300	3,800
32-311000	Food Manufacturing	2,800	2,700	2,400	2,400	2,500	2,200
07-000000	Service Providing	115,400	115,800	111,700	111,700	111,200	112,600
08-000000	Private Service Producing	84,000	83,600	79,100	79,100	79,500	81,300
40-000000	Trade, Transportation & Utilities	25,500	25,400	23,400	23,500	23,900	24,700
41-000000	Wholesale Trade	4,900	5,100	4,900	4,900	4,900	5,200
42-000000	Retail Trade	17,000	16,700	15,100	15,200	15,700	15,700
42-445000	Food & Beverage Stores	3,300	3,400	3,400	3,400	3,600	3,700
43-000000	Transportation, Warehousing & Utilities	3,600	3,600	3,400	3,300	3,400	3,800
50-000000	Information	2,100	2,000	1,700	1,700	1,600	1,500
55-000000	Financial Activities	6,000	5,500	4,700	4,300	4,100	4,200
60-000000	Professional & Business Services	11,900	11,600	10,900	11,500	11,500	11,300
65-000000	Educational & Health Services	12,700	13,100	13,600	13,400	13,500	13,800
65-620000	Health Care & Social Assistance	10,900	11,200	11,400	11,400	11,600	11,800
70-000000	Leisure & Hospitality	21,100	21,400	20,300	20,000	20,200	21,100
70-720000	Accommodation & Food Services	18,900	19,300	18,200	17,900	18,000	18,800
70-721000	Accommodation	7,300	7,500	6,800	6,700	6,600	6,700
70-722000	Food Services & Drinking Places	11,700	11,800	11,400	11,300	11,400	12,100
80-000000	Other Services	4,600	4,600	4,600	4,600	4,600	4,700
90-000000	Government	31,500	32,200	32,600	32,600	31,700	31,300
90-910000	Federal Government	4,900	5,100	5,300	5,800	5,900	5,800
90-919110	Department of Defense	3,200	3,400	3,600	3,700	4,200	4,200
90-940000	State & Local Government	26,500	27,100	27,300	26,800	25,800	25,400
90-920000	State Government	5,000	5,400	5,500	5,500	5,600	5,600
90-921611	State Government Education	1,000	1,000	1,000	1,000	1,100	1,100
90-922000	State Government Excluding	4,000	4,400	4,500	4,500	4,500	4,500
90-930000	Local Government	21,500	21,800	21,800	21,300	20,200	19,800
90-931611	Local Government Education	11,200	11,300	11,100	10,700	10,600	10,400
90-932000	Local Government Excluding	10,300	10,500	10,700	10,700	9,600	9,400
90-939012	County	4,600	4,800	5,000	5,200	4,500	4,500
90-939022	City	2,400	2,400	2,400	2,300	2,200	2,100
90-932994	Special Districts plus Indian Tribes	3,300	3,300	3,300	3,300	2,900	2,800

Source: CA Employment Development Department

The sectors most affected by the recession were Construction, Financial Activities, and Retail. The County’s tourism cluster also experienced a significant slow-down. The Construction and Financial sectors gained about 400 jobs and 100 jobs, respectively, in 2012 but remain well below pre-recession levels. The retail sector gained 50 jobs in 2011 but then remained flat this past year. The leisure and hospitality sector regained its job levels from 2007, led by food services with a big gain in 2012, but is still 300 jobs below its pre-recession level.

As mentioned above, farm labor declined in 2009 but then has been growing every year since then. However, food processing employment lost 300 jobs in 2012 after modest increases through the recession years. Total manufacturing jobs in the County have still not shown an annual increase since 2008.

Contradicting all other employment trends, the Health Care and Social Assistance sector has added jobs or remained steady every year. As noted later in the report, substantial employment growth is projected to continue in health care. Similarly, Federal Government employment has grown steadily in Monterey County in recent years and is projected to continue adding jobs. Local and State government declined significantly as a result of falling tax revenues, but now are projected to recover some of those jobs over the next five years.

POPULATION AND LABOR FORCE

Between 2000 and 2012, the county’s population grew by 4.7 percent while its labor force grew by 11.5 percent (Table 2). Jobs in the county had a slower growth rate of 4 percent and the increase in unemployment is highly correlated to the increasing labor force without commensurate job increases.

TABLE 2 POPULATION AND LABOR FORCE TRENDS, MONTEREY COUNTY				
Monterey County	2000	2012	Total Change	Growth Rate
Total Population	401,762	420,668	18,906	4.7%
Civilian Labor Force	203,200	226,500	23,300	11.5%
Employed Labor Force	188,200	200,800	12,600	6.7%
Unemployed Labor Force	14,900	25,700	10,800	72.5%
Unemployment Rate	7.4%	11.4%	4.0%	

Source: ADE, based on Decennial Census 2000, CA Dept. of Finance 2012, CA EDD 2012.

According to U.S. census bureau, occupation defines the kind of work that person does on the job. Table 3 cross-tabulates the industry of employment of Monterey County workers with the types of occupations held by resident workers. In 2011, close to 28 percent of Monterey County residents had an occupation in fields such as Management, Business, Science, and Arts.

Compared with the county's job base in Table 1, the workforce in Monterey County is more diverse. This results in 32.1 percent of the working population in Monterey County working outside the County.¹ About 20 percent of the residents have Service related occupations, 22 percent are in Sales and Office occupations, less than 20 percent are in Natural Resources, Construction and Maintenance, and about 11 percent have Production, Transportation, or Material Moving occupations.

**TABLE 3
INDUSTRY BY OCCUPATION, 2011, MONTEREY COUNTY, CALIFORNIA**

Jobs			Occupational Categories				
Industry Categories	Total Workers	Percent	Management, business, science, and arts occupations	Service occupations	Sales and office occupations	Natural resources, construction, and maintenance occupations	Production, transportation, and material moving occupations
Civilian employed population 16 years and over	175,425	100.0%	27.6%	20.2%	22.0%	19.4%	10.9%
Agriculture, forestry, fishing and hunting, and mining	26,333	15.0%	7.2%	1.5%	3.3%	75.1%	12.8%
Construction	10,673	6.1%	13.2%	1.3%	5.2%	75.1%	5.3%
Manufacturing	9,474	5.4%	20.4%	2.0%	17.1%	8.5%	52.0%
Wholesale trade	5,385	3.1%	14.8%	1.8%	41.2%	10.5%	31.7%
Retail trade	19,467	11.1%	8.6%	5.6%	72.1%	4.3%	9.3%
Transportation and warehousing, and utilities	6,102	3.5%	11.9%	1.4%	26.7%	12.2%	47.8%
Information	2,909	1.6%	54.0%	3.0%	26.8%	13.3%	2.9%
Finance and insurance, and real estate and rental and leasing	7,703	4.4%	39.1%	5.1%	50.2%	3.4%	2.2%
Professional, scientific, and management, and administrative and waste management svcs	16,523	9.4%	43.4%	30.4%	15.2%	4.0%	6.9%
Educational services, and health care & social assistance	34,191	19.5%	57.2%	25.9%	14.4%	0.6%	1.9%
Arts, entertainment, and recreation, & accommodation and food services	18,809	10.7%	17.0%	64.6%	15.0%	1.4%	2.0%
Other services, except public administration	8,423	4.8%	18.2%	40.1%	13.3%	15.1%	13.3%
Public administration	9,433	5.4%	40.6%	37.4%	17.3%	2.1%	2.6%

Source: ADE, American Community Survey 5-Year Estimates, 2007-2011

¹ Local Employment Dynamics, 2010.

UNDER-EMPLOYMENT

Under-employment generally refers to jobs that provide less than sustainable incomes for workers, either due to insufficient hours or due to low wage scales. This term sometimes also refers to under-utilization of the labor force, as reflected in the unemployment rate. Monterey County does have a relatively high unemployment rate, at 11.4 percent in 2012 compared to less than 10 percent for the state. The agricultural and tourism clusters are also subject to high seasonality, which magnifies unemployment during certain times of the year. According to the ACS, among the population between 16 and 64 years of age, the county unemployed workers total about 70,500 and there are another 45,100 workers who are employed less than 34 hours per week.

KEY DEMOGRAPHIC GROUPS

POPULATION COUNT FOR EMPLOYED POPULATION GROUPS

Based on the 2011 ACS counts, Monterey County has a population of 313,760 16 years and older. From this total, 304,016 persons defined themselves as belonging to one of the following racial groups: 228,014 persons are white, 10,713 are Black or African American, 21,182 are Asian, 1,628 are Native Hawaiian, 2,743 are American Indian and Alaska Native, and 39,736 belong to other races. Table 4 presents the percentage of this population that are in labor force, their employment share, and unemployment percentage and count. This Table also reports 153,632 persons 16 years and older as Hispanic or Latino. From the total of Hispanic or Latino persons of any race about 70 percent or 105,852 are in the labor force. The ACS also reports that close to 60 percent or 90,950 persons of this group are employed and nearly 20 percent or 20,894 are unemployed.

**TABLE 4
EMPLOYMENT STATUS BY RACE AND ETHNICITY**

Race and Ethnicity	Total	In Labor Force		Employed		Unemployment Rate	
		%	Count	%	Count	%	Count
Total One Race	304,016	64.5%	196,090	56.0%	170,249	16.6%	32,530
White	228,014	64.0%	145,929	55.1%	125,636	17.2%	25,082
Black or African American	10,713	48.2%	5,164	39.8%	4,264	29.9%	1,543
American Indian & Alaska Native	2,743	65.5%	1,797	49.2%	1,350	36.6%	658
Asian	21,182	61.7%	13,069	57.6%	12,201	8.3%	1,080
Native Hawaiian & Other Pacific Islander	1,628	84.8%	1,381	79.9%	1,301	5.1%	70
Some other race	39,736	72.3%	28,729	64.4%	25,590	14.8%	4,252
Two or more races	9,744	66.2%	6,451	53.1%	5,174	19.9%	1,286
Total	313,760		202,541		175,423		33,816
Hispanic or Latino origin (of any race)	153,632	68.9%	105,852	59.2%	90,950	19.7%	20,894

Source: ADE, Inc.; ACS 5-year estimates 2007-2011, Monterey County, California

As part of the local economic and workforce information analysis, Table 5 reports the number of people in labor force, employment count, and unemployment rate in 2011 for population over 16 years and older. For the purpose of this report, age groups between 16 and 24 are considered under Youth group. In addition the Older Persons group includes age groups 55 years and older.

TABLE 5 EMPLOYMENT STATUS BY AGE							
	Total	In Labor Force		Employed		Unemployment Rate	
Population 16 years & over	313,760	64.60%		55.90%		10.8%	
AGE:		PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT
16 to 19 years	26,216	37.90%	9,936	24.80%	6,502	80.7%	8,022
20 to 24 years	32,357	77.10%	24,947	59.40%	19,220	22.4%	5,598
Youth Total			34,883		25,722		13,620
25 to 44 years	116,542	78.60%	91,602	68.20%	79,482	12.5%	11,421
45 to 54 years	53,190	76.80%	40,850	70.00%	37,233	11.1%	4,521
Total			132,452		116,715		15,942
55 to 64 years	41,951	64.90%	27,226	60.80%	25,506	9.7%	2,643
65 to 74 years	22,199	29.40%	6,527	27.60%	6,127	20.7%	1,354
75 years and over	21,305	6.50%	1,385	6.30%	1,342	56.9%	788
Older Person's Total			35,138		32,975		4,785

Source: ADE, Inc.; ACS 5-year estimates 2007-2011, Monterey County, California

Table 6 reports veterans' employment status in 2011. ACS estimated a total veteran population of 13,172 from which 9,046 are in the labor force. Of the total veterans in the labor force, 8,235 are employed, while 811 are unemployed.

TABLE 6 VETERAN EMPLOYMENT STATUS	
	Estimate
Total:	253,797
Veteran:	13,173
In labor force:	9,046
Employed	8,235
Unemployed	811
Not in labor force	4,127
Nonveteran:	240,624
In labor force:	178,203
Employed	155,653
Unemployed	22,550
Not in labor force	62,421

Source: ADE, Inc.; ACS 5-year estimates 2007-2011, Monterey County, California

EMPLOYMENT AND OCCUPATION PROJECTIONS

According to EMSI, projected employment changes between 2012 and 2017 will add 9,648 jobs. As shown in Table 7, the agriculture, forestry, fishing and hunting sector (NAICS code 11) was the largest employment generator in 2012 with 47,568 workers. This industry is projected to remain the primary source of employment in 2017 with 52,116 workers, with 4,548 new jobs projected.

The second largest job sector in Monterey County by 2017 is accommodation and food services with 20,391 workers. The tourism industry, as a priority job sector in Monterey County, is comprised of the accommodation and food services sector plus arts, entertainment, and recreation. By 2017, the accommodation and food services sector is projected to grow by 1,528 workers, while arts and entertainment will only add 29 additional employees during this period. Health care and social assistance (NAICS code 62) is anticipated to gain 1,395 workers and become the third largest growing job sector in the county.

Other services (NAICS code 81) and retail trade (NAICS 44-45) are the fourth and fifth growing sectors with 869 and 674 additional workers respectively. Projections for management (NAICS code 55) and financial services (NAICS 52) show those sectors with the largest projected employment losses by 2017. In addition, the information services sector (NAICS code 51) will also have a sizable job loss, going from 1,569 workers in 2012 to 1,286 workers in 2017.

TABLE 7 EMPLOYMENT PROJECTIONS, 2012 TO 2017				
NAICS Code	Description	2012 Jobs	2017 Jobs (Projected)	Employment Change 2012-2017
11	Agriculture, Forestry, Fishing and Hunting	47,568	52,116	4,548
72	Accommodation and Food Services	18,863	20,391	1,528
62	Health Care and Social Assistance	12,070	13,465	1,395
81	Other Services (except Public Administration)	6,538	7,407	869
44-45	Retail Trade	16,261	16,935	674
54	Professional, Scientific, and Technical Services	5,786	6,312	526
42	Wholesale Trade	5,150	5,625	475
61	Educational Services (Private)	2,119	2,474	355
56	Administrative and Support and Waste Management and Remediation Services	5,261	5,588	327
48-49	Transportation and Warehousing	2,639	2,959	320
71	Arts, Entertainment, and Recreation	2,302	2,331	29
21	Mining, Quarrying, and Oil and Gas Extraction	204	192	-12

31-33	Manufacturing	5,437	5,410	-27
53	Real Estate and Rental and Leasing	1,715	1,688	-27
22	Utilities	622	436	-186
23	Construction	3,849	3,550	-299
51	Information	1,596	1,286	-310
52	Finance and Insurance	2,621	2,266	-355
55	Management of Companies and Enterprises	1,355	486	-869

Source: ADE, EMSI Employment projections 2012_2017, Monterey County, California

OCCUPATIONAL PROJECTIONS - TOURISM INDUSTRY

The tourism industry employs workers who provide cultural, entertainment and recreational services, food preparation and restaurant services, or lodging and short-term accommodation through a wide range of establishments. Tourism cluster includes Arts, Entertainment, and Recreation sectors, NAICS 71, and Accommodation and Food Services sector, NAICS 72. While sector 71 includes performing arts, museums and historical sites, amusement, gambling, and recreation services, sector 72 includes food services and drinking places as well as traveler accommodation, recreational accommodation, and rooming and boarding houses. Altogether, the tourism industry employed 21,165 workers in 2012 and is projected to grow to 22,722 workers in 2017. This projected growth of 1,557 jobs will primarily occur in the accommodations and food services category, as shown in Table 8.

TABLE 8 EMPLOYMENT CHANGE TOURISM INDUSTRY				
NAICS Code	Description	2012 Jobs	2017 Jobs	Employment Change 2012-2017
72	Accommodation and Food Services	18,863	20,391	1,528
71	Arts, Entertainment, and Recreation	2,302	2,331	29
Total	Tourism Industry	21,165	22,722	1,557

Source: ADE, EMSI Employment projections 2012_2017, Monterey County, California

In order to assess the projected occupational demand created by employment growth in tourism, the analysis tabulated the occupational staffing patterns for the tourism industries. Using data from EMSI, the occupational staffing patterns data identifies which specific occupations will create the highest number of new jobs between 2012 and 2017. This also helps gauge where the future demand for workforce training and education will potentially come from.

This cross tabulation method gives us the ability to gather a list of growing occupations for a particular industry and assess the required workforce skills an individual needs to find employment in the priority sectors. Table 9 presents the list of occupations in the tourism industry with a positive workforce growth by 2017. Food preparation occupations (SOC code 35) will add a total of 1,120 new workers by 2017, making it the largest growing

tourism occupation in Monterey County. Building and Grounds Cleaning and Maintenance, SOC 37, will have employment increase of about 146 persons. Compared to the food preparation services, this sector has a slower increase. EMSI also projects that 97 Office and Administrative Support Occupations will be added to the job market by 2017 and 57 of these jobs are related to hotel, motel and resort desk clerks.

**TABLE 9
MONTEREY COUNTY | STAFFING PATTERNS FOR TOURISM INDUSTRY**

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	2120	2634	514	Short-term on-the-job training
37-2012	Maids and Housekeeping Cleaners	1916	2035	119	Short-term on-the-job training
35-2021	Food Preparation Workers	939	1052	113	Short-term on-the-job training
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	801	899	98	Work experience in a related occupation
35-3031	Waiters and Waitresses	3367	3464	97	Short-term on-the-job training
35-2014	Cooks, Restaurant	1279	1353	74	Moderate-term on-the-job training
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	380	446	66	Short-term on-the-job training
43-4081	Hotel, Motel, and Resort Desk Clerks	832	888	56	Short-term on-the-job training
35-2011	Cooks, Fast Food	873	925	52	Short-term on-the-job training
41-2011	Cashiers	407	459	52	Short-term on-the-job training
35-2012	Cooks, Institution and Cafeteria	95	134	39	Short-term on-the-job training
39-7011	Tour Guides and Escorts	160	191	31	Moderate-term on-the-job training
35-9021	Dishwashers	731	761	30	Short-term on-the-job training
49-9071	Maintenance and Repair Workers, General	275	295	20	Moderate-term on-the-job training
53-3031	Driver/Sales Workers	105	125	20	Short-term on-the-job training
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	178	193	15	Short-term on-the-job training
35-3041	Food Servers, Non-restaurant	206	218	12	Short-term on-the-job training
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	639	648	9	Short-term on-the-job training
11-9081	Lodging Managers	141	149	8	Work experience in a related occupation
13-1121	Meeting, Convention, and Event Planners	72	80	8	Bachelor's degree
43-1011	First-Line Supervisors of Office and Administrative Support Workers	120	127	7	Work experience in a related occupation
43-3031	Bookkeeping, Accounting, and Auditing Clerks	117	124	7	Moderate-term on-the-job training
37-3011	Landscaping and Grounds keeping Workers	102	109	7	Short-term on-the-job training
31-9011	Massage Therapists	77	84	7	Postsecondary non-degree award

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
43-9061	Office Clerks, General	69	76	7	Short-term on-the-job training
33-9032	Security Guards	29	35	6	Short-term on-the-job training
35-2015	Cooks, Short Order	156	162	6	Short-term on-the-job training
51-6011	Laundry and Dry-Cleaning Workers	60	66	6	Short-term on-the-job training
41-2011	Cashiers	56	61	5	Short-term on-the-job training
39-3011	Gaming Dealers	32	37	5	Moderate-term on-the-job training
13-1121	Meeting, Convention, and Event Planners	17	22	5	Bachelor's degree
39-6011	Baggage Porters and Bellhops	85	90	5	Short-term on-the-job training
41-3099	Sales Representatives, Services, All Other	67	72	5	Short-term on-the-job training
39-3091	Amusement and Recreation Attendants	48	53	5	Short-term on-the-job training
53-3033	Light Truck or Delivery Services Drivers	26	31	5	Short-term on-the-job training
35-2019	Cooks, All Other	19	24	5	Moderate-term on-the-job training
41-2031	Retail Salespersons	45	49	4	Short-term on-the-job training
39-2021	Nonfarm Animal Caretakers	28	32	4	Short-term on-the-job training
51-3011	Bakers	63	67	4	Long-term on-the-job training
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	31	35	4	Short-term on-the-job training
37-3011	Landscaping and Grounds keeping Workers	208	211	3	Short-term on-the-job training
25-3021	Self-Enrichment Education Teachers	27	30	3	Work experience in a related occupation
39-3031	Ushers, Lobby Attendants, and Ticket Takers	18	21	3	Short-term on-the-job training
33-9032	Security Guards	71	74	3	Short-term on-the-job training
11-2022	Sales Managers	42	45	3	Bachelor's or higher degree, plus work experience
53-3041	Taxi Drivers and Chauffeurs	28	31	3	Short-term on-the-job training
39-9032	Recreation Workers	28	31	3	Bachelor's degree
43-4051	Customer Service Representatives	27	30	3	Short-term on-the-job training
43-9061	Office Clerks, General	38	40	2	Short-term on-the-job training

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	36	38	2	Short-term on-the-job training
49-9071	Maintenance and Repair Workers, General	35	37	2	Moderate-term on-the-job training
27-1027	Set and Exhibit Designers	25	27	2	Bachelor's degree
43-6011	Executive Secretaries and Executive Administrative Assistants	15	17	2	Work experience in a related occupation
25-9031	Instructional Coordinators	13	15	2	Master's degree
11-1021	General and Operations Managers	141	143	2	Bachelor's or higher degree, plus work experience
35-1011	Chefs and Head Cooks	108	110	2	Work experience in a related occupation
39-6012	Concierges	40	42	2	Moderate-term on-the-job training
41-2031	Retail Salespersons	37	39	2	Short-term on-the-job training
43-6011	Executive Secretaries and Executive Administrative Assistants	29	31	2	Work experience in a related occupation
43-4171	Receptionists and Information Clerks	23	25	2	Short-term on-the-job training
13-2011	Accountants and Auditors	23	25	2	Bachelor's degree
41-1011	First-Line Supervisors of Retail Sales Workers	17	19	2	Work experience in a related occupation
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	17	19	2	Short-term on-the-job training
43-5081	Stock Clerks and Order Fillers	10	12	2	Short-term on-the-job training
35-3011	Bartenders	30	31	1	Short-term on-the-job training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	24	25	1	Moderate-term on-the-job training
25-3999	Teachers and Instructors, All Other	24	25	1	Bachelor's degree
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	20	21	1	Short-term on-the-job training
43-4051	Customer Service Representatives	17	18	1	Short-term on-the-job training
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	12	13	1	Short-term on-the-job training
43-1011	First-Line Supervisors of Office and Administrative Support Workers	12	13	1	Work experience in a related occupation
41-1011	First-Line Supervisors of Retail Sales Workers	12	13	1	Work experience in a related occupation
35-2015	Cooks, Short Order	11	12	1	Short-term on-the-job training
39-3019	Gaming Service Workers, All Other	11	12	1	Moderate-term on-the-job training

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	29	30	1	Short-term on-the-job training
43-3051	Payroll and Timekeeping Clerks	24	25	1	Moderate-term on-the-job training
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	23	24	1	Work experience in a related occupation
39-9031	Fitness Trainers and Aerobics Instructors	18	19	1	Postsecondary non-degree award
11-3031	Financial Managers	14	15	1	Bachelor's or higher degree, plus work experience
11-3011	Administrative Services Managers	14	15	1	Work experience in a related occupation
43-5071	Shipping, Receiving, and Traffic Clerks	11	12	1	Short-term on-the-job training
13-1199	Business Operations Specialists, All Other	11	12	1	Long-term on-the-job training

Source: ADE, EMSI Employment projections 2012 to 2017, Monterey County, California

OCCUPATIONAL PROJECTIONS - EDUCATIONAL SERVICES

The educational services sector (NAICS code 61) consists of jobs that provide training and instructions through establishments such as schools, colleges, universities, and training centers. The Office of Institutional Assessment and Research reports 1,668 employees for California State University, Monterey Bay (CSUMB).² Furthermore, EMSI reports 1,300 workers for Naval Postgraduate School Foundation, Inc. 300 workers for Pacific Grove Unified School District Office, 127 workers for Monterey Peninsula Unified School District, 100 employees for Esalen Institute, and 92 employees for Salinas Union High School District. With these figures in mind, CSUMB was the major employer in this cluster in Monterey County in 2012.

The projected employment shows the 2,119 jobs for this sector in 2012 increasing to 2,474 jobs by 2017. The 355 new workers in this sector constitute a much slower growth pattern compared with the tourism industry. EMSI projects 208 workers will find employment in Education, Training, and Library Occupations (SOC code 25). From this total, 53 workers will be postsecondary teachers. Other occupations such as office administration (SOC code 43), management (SOC 11), art, design, and entertainment (SOC 27), and community and social service occupations (SOC 21), are also projected to show growth by 2017.

² California State University, Monterey Bay, Factbook 2012-2013, http://wwwfiles.csumb.edu/iar/factbook/Factbook_1213.pdf, accessed April 2013.

**TABLE 1
MONTEREY COUNTY | STAFFING PATTERNS FOR EDUCATIONAL SERVICES (PRIVATE)**

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
25-3999	Teachers and Instructors, All Other	461	510	49	Bachelor's degree
25-1099	Postsecondary Teachers	288	341	53	Doctoral degree
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	145	165	20	Bachelor's degree
25-2021	Elementary School Teachers, Except Special Education	142	163	21	Bachelor's degree
25-9041	Teacher Assistants	119	137	18	Short-term on-the-job training
25-3021	Self-Enrichment Education Teachers	68	80	12	Work experience in a related occupation
43-9061	Office Clerks, General	46	56	10	Short-term on-the-job training
25-2022	Middle School Teachers, Except Special and Career/Technical Education	45	53	8	Bachelor's degree
27-2022	Coaches and Scouts	44	56	12	Long-term on-the-job training
25-2011	Preschool Teachers, Except Special Education	41	47	6	Associate's degree
11-9032	Education Administrators, Elementary and Secondary School	35	40	5	Master's degree
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	33	39	6	Short-term on-the-job training
25-2012	Kindergarten Teachers, Except Special Education	33	38	5	Bachelor's degree
21-1012	Educational, Guidance, School, and Vocational Counselors	33	41	8	Master's degree
25-9031	Instructional Coordinators	25	30	5	Master's degree
43-6011	Executive Secretaries and Executive Administrative Assistants	25	29	4	Work experience in a related occupation
27-2032	Choreographers	24	26	2	Work experience in a related occupation
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	22	27	5	Short-term on-the-job training
11-9033	Education Administrators, Postsecondary	19	24	5	Master's degree
39-9011	Childcare Workers	17	22	5	Short-term on-the-job training
11-1021	General and Operations Managers	15	18	3	Bachelor's or higher degree, plus work experience
43-9799	Office and Administrative Support Workers, All Other	15	17	2	Short-term on-the-job training
25-9099	Education, Training, and Library Workers, All Other	14	17	3	Bachelor's degree
43-3031	Bookkeeping, Accounting, and Auditing Clerks	14	17	3	Moderate-term on-the-job training
13-1199	Business Operations Specialists, All Other	13	16	3	Long-term on-the-job training
43-4171	Receptionists and Information Clerks	12	15	3	Short-term on-the-job training
15-1159	Computer Support Specialists	12	14	2	Associate's degree
43-1011	First-Line Supervisors of Office and Administrative Support Workers	12	14	2	Work experience in a related occupation

Source: ADE, EMSI Employment projections 2012 to 2017, Monterey County, California

OCCUPATIONAL PROJECTIONS - AGRICULTURE CLUSTER

In Monterey County, the agriculture cluster is the largest generator of economic activity. Agricultural activity includes not only farm production, but also food processing, distribution, and support services. In order to assess the totality of the agricultural economy in Monterey County, this section looks at agriculture as an overall set of interrelated industries. The industries that comprise the agriculture cluster are diverse, yet each of them has a significant role in supporting the agricultural economy. The list of individual industries that comprise the agriculture cluster in Monterey County is included in Appendix A.

As shown in Table 8, the agriculture cluster as a whole had an estimated employment total of about 65,755 positions in 2012. Data from EMSI projects that the cluster employment will increase by 7.3 percent through 2017 to 70,548 positions. Agricultural production comprises by far the largest portion of employment in the cluster, and also accounts for about 95 percent of the projected growth in this cluster.

TABLE 8: SUMMARY OF AGRICULTURE CLUSTER EMPLOYMENT BY SUBGROUP, 2012 TO 2017				
Cluster Group	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Percent Change
Agriculture Cluster - Production	47,566	52,115	4,549	9.6%
Agriculture Cluster - Processing	3,543	3,573	30	0.8%
Agriculture Cluster - Distribution	8,246	8,968	722	8.8%
Agriculture Cluster - Support	6,400	5,892	-508	-7.9%
Agriculture Cluster Total	65,755	70,548	4,793	7.3%

Source: ADE, Inc.; data from EMSI.

AGRICULTURE PRODUCTION

The production group within the agriculture cluster includes farm production, livestock production, fishing, and support services for agriculture and animal production. This group is projected to add 4,549 new jobs between 2012 and 2017. The vast majority of this growth will occur with the farmworker and laborer occupations (SOC code 45-2092), with 2,768 new jobs in this category expected to be added during this time. Other prominent occupations within this group that will create significant job growth include graders and sorters, and equipment operators. The full range of occupational growth in agriculture production is shown in Table 9.

**TABLE 9:
AGRICULTURE CLUSTER PRODUCTION - OCCUPATIONAL GROWTH 2012 TO 2017**

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	32,516	35,284	2,768	Short-term on-the-job training
45-2041	Graders and Sorters, Agricultural Products	1,610	1,786	176	Short-term on-the-job training
45-2091	Agricultural Equipment Operators	1,307	1,478	171	Short-term on-the-job training
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	1,263	1,393	130	Short-term on-the-job training
11-9013	Farmers, Ranchers, and Other Agricultural Managers	1,165	1,281	116	Work experience in a related occupation
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	1,198	1,312	114	Work experience in a related occupation
53-7064	Packers and Packagers, Hand	716	811	95	Short-term on-the-job training
53-3032	Heavy and Tractor-Trailer Truck Drivers	458	515	57	Short-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	333	387	54	Short-term on-the-job training
53-7051	Industrial Truck and Tractor Operators	376	421	45	Short-term on-the-job training
43-9061	Office Clerks, General	174	218	44	Short-term on-the-job training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	260	298	38	Moderate-term on-the-job training
45-2099	Agricultural Workers, All Other	322	357	35	Short-term on-the-job training
37-3011	Landscaping and Grounds keeping Workers	316	349	33	Short-term on-the-job training
49-9071	Maintenance and Repair Workers, General	162	194	32	Moderate-term on-the-job training
51-9111	Packaging and Filling Machine Operators and Tenders	202	234	32	Moderate-term on-the-job training
43-4051	Customer Service Representatives	74	101	27	Short-term on-the-job training
51-9198	Helpers--Production Workers	193	218	25	Short-term on-the-job training
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	177	201	24	Moderate-term on-the-job training
43-5071	Shipping, Receiving, and Traffic Clerks	168	192	24	Short-term on-the-job training
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	63	84	21	Moderate-term on-the-job training
53-3033	Light Truck or Delivery Services Drivers	193	214	21	Short-term on-the-job training
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	116	136	20	Short-term on-the-job training

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
49-3041	Farm Equipment Mechanics and Service Technicians	143	161	18	Long-term on-the-job training
13-2011	Accountants and Auditors	116	129	13	Bachelor's degree
11-1021	General and Operations Managers	151	163	12	Bachelor's or higher degree, plus work experience
13-1021	Buyers and Purchasing Agents, Farm Products	36	48	12	Long-term on-the-job training
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	15	27	12	Postsecondary non-degree award
51-1011	First-Line Supervisors of Production and Operating Workers	67	79	12	Work experience in a related occupation
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	58	69	11	Short-term on-the-job training
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	157	168	11	Short-term on-the-job training
43-9021	Data Entry Keyers	21	32	11	Moderate-term on-the-job training
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	77	88	11	Long-term on-the-job training
51-9399	Production Workers, All Other	75	85	10	Moderate-term on-the-job training
53-3031	Driver/Sales Workers	86	96	10	Short-term on-the-job training
41-2011	Cashiers	84	93	9	Short-term on-the-job training
43-1011	First-Line Supervisors of Office and Administrative Support Workers	74	83	9	Work experience in a related occupation
43-3051	Payroll and Timekeeping Clerks	66	75	9	Moderate-term on-the-job training
13-1199	Business Operations Specialists, All Other	11	19	8	Long-term on-the-job training
43-6011	Executive Secretaries and Executive Administrative Assistants	67	75	8	Work experience in a related occupation
49-9041	Industrial Machinery Mechanics	36	44	8	Long-term on-the-job training
19-1013	Soil and Plant Scientists	49	56	7	Bachelor's degree
43-5081	Stock Clerks and Order Fillers	67	74	7	Short-term on-the-job training
11-2021	Marketing Managers	19	25	6	Bachelor's or higher degree, plus work experience
13-1078	Human Resources, Training, and Labor Relations Specialists, All Other	25	31	6	Bachelor's degree
43-6013	Medical Secretaries	28	34	6	Moderate-term on-the-job training

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
45-2011	Agricultural Inspectors	51	57	6	Bachelor's degree
45-2021	Animal Breeders	60	66	6	Work experience in a related occupation
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	38	44	6	Work experience in a related occupation
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	17	23	6	Moderate-term on-the-job training
51-9141	Semiconductor Processors	62	68	6	Associate's degree
53-7061	Cleaners of Vehicles and Equipment	75	81	6	Short-term on-the-job training
53-7063	Machine Feeders and Offbearers	30	36	6	Short-term on-the-job training
11-3051	Industrial Production Managers	29	34	5	Bachelor's or higher degree, plus work experience
39-4831	Funeral Service Managers, Directors, Morticians, and Undertakers	50	55	5	Associate's degree
49-9043	Maintenance Workers, Machinery	27	32	5	Moderate-term on-the-job training
51-4121	Welders, Cutters, Solderers, and Brazers	45	50	5	Postsecondary non-degree award
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	55	60	5	Moderate-term on-the-job training
11-9199	Managers, All Other	47	51	4	Work experience in a related occupation
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	39	43	4	Bachelor's degree
43-4171	Receptionists and Information Clerks	37	41	4	Short-term on-the-job training
45-4011	Forest and Conservation Workers	36	40	4	Moderate-term on-the-job training
47-2073	Operating Engineers and Other Construction Equipment Operators	27	31	4	Moderate-term on-the-job training
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	62	66	4	Moderate-term on-the-job training
11-1011	Chief Executives	47	50	3	Bachelor's or higher degree, plus work experience
13-1111	Management Analysts	18	21	3	Bachelor's or higher degree, plus work experience
41-3099	Sales Representatives, Services, All Other	15	18	3	Short-term on-the-job training
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	18	21	3	Work experience in a related occupation
11-2022	Sales Managers	36	38	2	Bachelor's or higher degree, plus work experience

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
11-3031	Financial Managers	22	24	2	Bachelor's or higher degree, plus work experience
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	19	21	2	Long-term on-the-job training
17-2031	Biomedical Engineers	15	17	2	Bachelor's degree
19-1012	Food Scientists and Technologists	18	20	2	Bachelor's degree
33-9032	Security Guards	16	18	2	Short-term on-the-job training
35-2021	Food Preparation Workers	23	25	2	Short-term on-the-job training
37-3013	Tree Trimmers and Pruners	14	16	2	Short-term on-the-job training
39-7011	Tour Guides and Escorts	14	16	2	Moderate-term on-the-job training
43-3021	Billing and Posting Clerks	14	16	2	Short-term on-the-job training
43-9011	Computer Operators	18	20	2	Moderate-term on-the-job training
45-4022	Logging Equipment Operators	19	21	2	Moderate-term on-the-job training
47-2031	Carpenters	18	20	2	Long-term on-the-job training
47-2141	Painters, Construction and Maintenance	15	17	2	Moderate-term on-the-job training
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	14	16	2	Short-term on-the-job training
51-9193	Cooling and Freezing Equipment Operators and Tenders	23	25	2	Moderate-term on-the-job training
11-1031	Legislators	11	12	1	Bachelor's or higher degree, plus work experience
11-3011	Administrative Services Managers	12	13	1	Work experience in a related occupation
11-3021	Computer and Information Systems Managers	15	16	1	Bachelor's or higher degree, plus work experience
11-3121	Human Resources Managers	14	15	1	Bachelor's or higher degree, plus work experience
11-9141	Property, Real Estate, and Community Association Managers	14	15	1	Work experience in a related occupation
19-4011	Agricultural and Food Science Technicians	14	15	1	Associate's degree
25-3999	Teachers and Instructors, All Other	10	11	1	Bachelor's degree
37-2012	Maids and Housekeeping Cleaners	37	38	1	Short-term on-the-job training

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
37-2021	Pest Control Workers	12	13	1	Moderate-term on-the-job training
43-6012	Legal Secretaries	12	13	1	Postsecondary non-degree award
47-2061	Construction Laborers	23	24	1	Short-term on-the-job training
47-2152	Plumbers, Pipefitters, and Steamfitters	12	13	1	Long-term on-the-job training
49-3043	Rail Car Repairers	14	15	1	Long-term on-the-job training
49-9097	Signal and Track Switch Repairers	10	11	1	Postsecondary non-degree award
49-9799	Installation, Maintenance, and Repair Workers, All Other	15	16	1	Moderate-term on-the-job training
51-3011	Bakers	11	12	1	Long-term on-the-job training
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	12	13	1	Moderate-term on-the-job training
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	54	55	1	Work experience in a related occupation

Source: ADE, Inc.; data from EMSI.

Notes: The occupational tables are compiled from the job distribution for each industry sector within the subgroup. The data only includes those occupations that have at least 10 jobs within each sector.

OCCUPATIONAL GROWTH – PROCESSING

The processing group includes all forms of food and beverage processing, as well as additional manufacturing activity related to packaging. Several sectors that normally would have been included with this group currently have no employment in Monterey County. These categories include fabric and leather goods production, and container manufacturing (plastic, glass, and metal). With the processing industries that operate in Monterey County, the 2012 employment shows a total of 3,543 jobs. By 2017, this will remain virtually unchanged with only about 30 new net jobs expected by that time. The largest source of occupational growth will be related to paper machinery operations (SOC code 51-9196), with 40 new jobs through 2017 (Table 9). Most other occupations related to processing will have either modest job gains or job declines.

**TABLE 9:
AGRICULTURE CLUSTER PROCESSING - OCCUPATIONAL GROWTH 2012 TO 2017**

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
51-9196	Paper Goods Machine Setters, Operators, and Tenders	135	175	40	Moderate-term on-the-job training
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	104	119	15	Moderate-term on-the-job training

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	90	98	8	Moderate-term on-the-job training
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	77	85	8	Short-term on-the-job training
49-9041	Industrial Machinery Mechanics	39	45	6	Long-term on-the-job training
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	11	16	5	Short-term on-the-job training
41-2031	Retail Salespersons	55	59	4	Short-term on-the-job training
41-9011	Demonstrators and Product Promoters	31	35	4	Short-term on-the-job training
51-5112	Printing Press Operators	12	16	4	Moderate-term on-the-job training
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	32	36	4	Short-term on-the-job training
53-3031	Driver/Sales Workers	34	38	4	Short-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	83	87	4	Short-term on-the-job training
53-3032	Heavy and Tractor-Trailer Truck Drivers	56	59	3	Short-term on-the-job training
53-3033	Light Truck or Delivery Services Drivers	45	48	3	Short-term on-the-job training
51-1011	First-Line Supervisors of Production and Operating Workers	83	85	2	Work experience in a related occupation
35-3031	Waiters and Waitresses	11	12	1	Short-term on-the-job training
43-5081	Stock Clerks and Order Fillers	28	28	0	Short-term on-the-job training
51-2092	Team Assemblers	12	12	0	Moderate-term on-the-job training
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	12	12	0	Work experience in a related occupation
43-4051	Customer Service Representatives	13	12	-1	Short-term on-the-job training
43-9061	Office Clerks, General	33	32	-1	Short-term on-the-job training
49-9071	Maintenance and Repair Workers, General	44	43	-1	Moderate-term on-the-job training
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	15	14	-1	Moderate-term on-the-job training
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	13	12	-1	Work experience in a related occupation
41-2011	Cashiers	21	19	-2	Short-term on-the-job training

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
43-3031	Bookkeeping, Accounting, and Auditing Clerks	19	17	-2	Moderate-term on-the-job training
49-9043	Maintenance Workers, Machinery	13	11	-2	Moderate-term on-the-job training
51-9198	Helpers--Production Workers	118	116	-2	Short-term on-the-job training
53-7063	Machine Feeders and Offbearers	14	12	-2	Short-term on-the-job training
11-1021	General and Operations Managers	40	37	-3	Bachelor's or higher degree, plus work experience
11-3051	Industrial Production Managers	26	23	-3	Bachelor's or higher degree, plus work experience
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	24	21	-3	Short-term on-the-job training
19-1012	Food Scientists and Technologists	26	22	-4	Bachelor's degree
53-7051	Industrial Truck and Tractor Operators	186	182	-4	Short-term on-the-job training
43-5071	Shipping, Receiving, and Traffic Clerks	51	46	-5	Short-term on-the-job training
51-3093	Food Cooking Machine Operators and Tenders	37	32	-5	Short-term on-the-job training
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	69	64	-5	Moderate-term on-the-job training
19-4011	Agricultural and Food Science Technicians	32	26	-6	Associate's degree
35-2021	Food Preparation Workers	46	40	-6	Short-term on-the-job training
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	46	40	-6	Moderate-term on-the-job training
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	40	33	-7	Moderate-term on-the-job training
53-7061	Cleaners of Vehicles and Equipment	45	38	-7	Short-term on-the-job training
45-2041	Graders and Sorters, Agricultural Products	34	26	-8	Short-term on-the-job training
51-3011	Bakers	89	81	-8	Long-term on-the-job training
51-9399	Production Workers, All Other	75	66	-9	Moderate-term on-the-job training
51-9111	Packaging and Filling Machine Operators and Tenders	290	280	-10	Moderate-term on-the-job training
53-7064	Packers and Packagers, Hand	170	153	-17	Short-term on-the-job training
51-3092	Food Batchmakers	240	205	-35	Short-term on-the-job training

Source: ADE, Inc.; data from EMSI. Notes: The occupational tables are compiled from the job distribution for each industry sector within the cluster subgroup. The data only includes those occupations that have at least 10 jobs within each sector.

OCCUPATIONAL GROWTH – DISTRIBUTION

The distribution group includes food and farm product-related wholesale trade activity, transportation services (including trucking, rail, water, and air modes), and warehousing. Distribution also includes related retail sectors such as grocery stores. The job count for this group is expected to increase from 8,246 jobs in 2012 to 8,968 jobs in 2017. The largest sources of projected occupational growth during this period include truck drivers (SOC code 53-3032) and cashiers (SOC code 41-2011) (Table 10).

**TABLE 10:
AGRICULTURE CLUSTER DISTRIBUTION - OCCUPATIONAL GROWTH 2012 TO 2017**

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
53-3032	Heavy and Tractor-Trailer Truck Drivers	807	936	129	Short-term on-the-job training
41-2011	Cashiers	1276	1373	97	Short-term on-the-job training
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	361	414	53	Moderate-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	350	392	42	Short-term on-the-job training
43-5081	Stock Clerks and Order Fillers	507	541	34	Short-term on-the-job training
41-1011	First-Line Supervisors of Retail Sales Workers	227	245	18	Work experience in a related occupation
43-9061	Office Clerks, General	130	148	18	Short-term on-the-job training
53-3031	Driver/Sales Workers	103	119	16	Short-term on-the-job training
53-7064	Packers and Packagers, Hand	415	431	16	Short-term on-the-job training
53-3033	Light Truck or Delivery Services Drivers	142	157	15	Short-term on-the-job training
35-2021	Food Preparation Workers	254	268	14	Short-term on-the-job training
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	146	159	13	Short-term on-the-job training
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	97	109	12	Short-term on-the-job training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	74	84	10	Moderate-term on-the-job training
43-4051	Customer Service Representatives	91	101	10	Short-term on-the-job training
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	73	82	9	Postsecondary non-degree award
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	85	94	9	Short-term on-the-job training
11-1021	General and Operations Managers	91	99	8	Bachelor's or higher degree, plus work experience
51-3021	Butchers and Meat Cutters	191	199	8	Long-term on-the-job training
43-1011	First-Line Supervisors of Office and Administrative Support Workers	74	81	7	Work experience in a related occupation
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	55	62	7	Work experience in a related occupation

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
43-5071	Shipping, Receiving, and Traffic Clerks	126	132	6	Short-term on-the-job training
43-5032	Dispatchers, Except Police, Fire, and Ambulance	36	41	5	Moderate-term on-the-job training
43-5032	Dispatchers, Except Police, Fire, and Ambulance	36	41	5	Moderate-term on-the-job training
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	37	41	4	Short-term on-the-job training
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	45	49	4	Work experience in a related occupation
53-7051	Industrial Truck and Tractor Operators	196	200	4	Short-term on-the-job training
27-1026	Merchandise Displayers and Window Trimmers	16	19	3	Moderate-term on-the-job training
29-1051	Pharmacists	19	22	3	First professional degree
29-2052	Pharmacy Technicians	24	27	3	Moderate-term on-the-job training
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	31	34	3	Work experience in a related occupation
41-1012	First-Line Supervisors of Non-Retail Sales Workers	27	30	3	Work experience in a related occupation
45-2041	Graders and Sorters, Agricultural Products	43	46	3	Short-term on-the-job training
51-9111	Packaging and Filling Machine Operators and Tenders	24	27	3	Moderate-term on-the-job training
11-2022	Sales Managers	22	24	2	Bachelor's or higher degree, plus work experience
13-1022	Wholesale and Retail Buyers, Except Farm Products	23	25	2	Long-term on-the-job training
31-9095	Pharmacy Aides	14	16	2	Short-term on-the-job training
41-2021	Counter and Rental Clerks	18	20	2	Short-term on-the-job training
41-9011	Demonstrators and Product Promoters	17	19	2	Short-term on-the-job training
43-4151	Order Clerks	16	18	2	Short-term on-the-job training
51-1011	First-Line Supervisors of Production and Operating Workers	18	20	2	Work experience in a related occupation
51-3011	Bakers	75	77	2	Long-term on-the-job training
53-7061	Cleaners of Vehicles and Equipment	14	16	2	Short-term on-the-job training
13-1021	Buyers and Purchasing Agents, Farm Products	14	15	1	Long-term on-the-job training
27-1023	Floral Designers	17	18	1	Short-term on-the-job training
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	17	18	1	Short-term on-the-job training
41-9799	Sales and Related Workers, All Other	11	12	1	Moderate-term on-the-job training
49-3011	Aircraft Mechanics and Service Technicians	30	31	1	Postsecondary non-degree award
49-9071	Maintenance and Repair Workers, General	13	14	1	Moderate-term on-the-job training
51-3092	Food Batchmakers	15	16	1	Short-term on-the-job training
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	74	74	0	Short-term on-the-job training

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	16	16	0	Short-term on-the-job training
53-7199	Material Moving Workers, All Other	18	18	0	Material Moving Workers, All Other
41-2031	Retail Salespersons	208	200	-8	Short-term on-the-job training

Source: ADE, Inc.; data from EMSI.

Notes: The occupational tables are compiled from the job distribution for each industry sector within the cluster subgroup. The data only includes those occupations that have at least 10 jobs within each sector.

OCCUPATIONAL GROWTH – SUPPORT INDUSTRIES

The support occupations come from a broad range of industries that operationally support agriculture. These activities include water utilities, construction, equipment manufacturing, fertilizers and chemicals, professional services, business support services, and repair services. Altogether, the employment in these sectors is expected to decline by nearly eight percent between 2012 and 2017. The occupations in this category projected to grow during this period include landscapers (SOC code 37-3011) and laborers and movers (SOC code 53-7062) (Table 11).

**TABLE 11:
AGRICULTURE CLUSTER SUPPORT - OCCUPATIONAL GROWTH 2012 TO 2017**

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	Education Level
37-3011	Landscaping and Grounds keeping Workers	482	548	66	Short-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	114	125	11	Short-term on-the-job training
43-3021	Billing and Posting Clerks	25	34	9	Short-term on-the-job training
51-9198	Helpers--Production Workers	83	92	9	Short-term on-the-job training
25-3999	Teachers and Instructors, All Other	102	110	8	Bachelor's degree
53-7064	Packers and Packagers, Hand	64	72	8	Short-term on-the-job training
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Grounds keeping Workers	74	81	7	Work experience in a related occupation
41-2021	Counter and Rental Clerks	12	18	6	Short-term on-the-job training
13-1111	Management Analysts	17	21	4	Bachelor's or higher degree, plus work experience
29-1111	Registered Nurses	33	37	4	Associate's degree
39-2021	Nonfarm Animal Caretakers	39	42	3	Short-term on-the-job training

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	SOC Code
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	56	59	3	Moderate-term on-the-job training
41-9011	Demonstrators and Product Promoters	10	13	3	Short-term on-the-job training
43-3051	Payroll and Timekeeping Clerks	12	15	3	Moderate-term on-the-job training
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	55	58	3	Short-term on-the-job training
29-2056	Veterinary Technologists and Technicians	33	35	2	Associate's degree
41-3099	Sales Representatives, Services, All Other	32	34	2	Short-term on-the-job training
43-3011	Bill and Account Collectors	12	14	2	Moderate-term on-the-job training
43-9799	Office and Administrative Support Workers, All Other	13	15	2	Short-term on-the-job training
49-3041	Farm Equipment Mechanics and Service Technicians	67	69	2	Long-term on-the-job training
51-2092	Team Assemblers	10	12	2	Moderate-term on-the-job training
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	16	18	2	Moderate-term on-the-job training
13-1078	Human Resources, Training, and Labor Relations Specialists, All Other	13	14	1	Bachelor's degree
29-1131	Veterinarians	52	53	1	First professional degree
41-2022	Parts Salespersons	12	13	1	Moderate-term on-the-job training
49-9041	Industrial Machinery Mechanics	18	19	1	Long-term on-the-job training
37-2021	Pest Control Workers	101	101	0	Moderate-term on-the-job training
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	14	14	0	Work experience in a related occupation
51-2099	Assemblers and Fabricators, All Other	13	13	0	Moderate-term on-the-job training
51-9111	Packaging and Filling Machine Operators and Tenders	14	14	0	Moderate-term on-the-job training
51-9399	Production Workers, All Other	14	14	0	Moderate-term on-the-job training
29-2061	Licensed Practical and Licensed Vocational Nurses	13	12	-1	Postsecondary non-degree award
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	12	11	-1	Short-term on-the-job training
43-4171	Receptionists and Information Clerks	74	73	-1	Short-term on-the-job training

SOC Code	Occupation	2012 Jobs	2017 Jobs (Projected)	Change 2012 to 2017	SOC Code
43-5071	Shipping, Receiving, and Traffic Clerks	12	11	-1	Short-term on-the-job training
43-9021	Data Entry Keyers	25	24	-1	Moderate-term on-the-job training
47-2152	Plumbers, Pipefitters, and Steamfitters	12	11	-1	Long-term on-the-job training
51-4121	Welders, Cutters, Solderers, and Brazers	13	12	-1	Postsecondary non-degree award
53-7051	Industrial Truck and Tractor Operators	16	15	-1	Short-term on-the-job training
47-2073	Operating Engineers and Other Construction Equipment Operators	27	25	-2	Moderate-term on-the-job training
47-2061	Construction Laborers	66	62	-4	Short-term on-the-job training
43-9061	Office Clerks, General	199	193	-6	Short-term on-the-job training
41-2031	Retail Salespersons	41	32	-9	Short-term on-the-job training
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	132	120	-12	Short-term on-the-job training
43-4051	Customer Service Representatives	98	85	-13	Short-term on-the-job training
51-8031	Water and Wastewater Treatment Plant and System Operators	45	31	-14	Long-term on-the-job training
13-2011	Accountants and Auditors	64	49	-15	Bachelor's degree
43-1011	First-Line Supervisors of Office and Administrative Support Workers	68	51	-17	Work experience in a related occupation
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	57	38	-19	Short-term on-the-job training
11-3031	Financial Managers	47	27	-20	Bachelor's or higher degree, plus work experience
43-6011	Executive Secretaries and Executive Administrative Assistants	63	43	-20	Work experience in a related occupation
15-1159	Computer Support Specialists	51	28	-23	Associate's degree
13-1199	Business Operations Specialists, All Other	68	39	-29	Long-term on-the-job training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	111	80	-31	Moderate-term on-the-job training
11-1021	General and Operations Managers	107	74	-33	Bachelor's or higher degree, plus work experience

Source: ADE, Inc.; data from EMSI.

Notes: The occupational tables are compiled from the job distribution for each industry sector within the cluster subgroup. The data only includes those occupations that have at least 10 jobs within each sector.

ADDITIONAL GROWTH INDUSTRIES

In the analysis above, we have presented occupational growth for the three primary industry clusters of Agriculture, Educational Services and Tourism. Table 12 below presents a list of additional industries with a substantial projected growth by 2017. The purpose of this table is to report growth by job sectors that are not considered as principle clusters but their employment growth will provide new occupational opportunities in Monterey County. To begin with, NAICS code 90 is comprised of government related jobs and the Local Government sub sector, NAICS 903, and State Government, NAICS 902, are showing growth in their employment by 2017. However, local government is showing a faster growth compared to its counterpart sector at the state level. Second, Ambulatory Health Care Services, NAICS 621, which is part of the Health Care and Social Assistance supersector, is projected to provide 556 new jobs by 2017. Other growing health care business sectors include Social Assistance, NAICS 624, and Nursing and Residential Care Facilities, NAICS 623, with 380 and 377 new jobs, respectively. Thirdly, Professional, Scientific, and Technical Services, NAICS 541, is also projected to hire 526 new workers. Finally, General Merchandise Stores, NAICS 452, are projected to hire 244 employees by 2017.

NAICS Code	Description	2012 Jobs	2017 Jobs	Change
903	Local Government	19,944	20,764	820
621	Ambulatory Health Care Services	6,038	6,594	556
541	Professional, Scientific, and Technical Services	5,786	6,312	526
624	Social Assistance	1,589	1,969	380
623	Nursing and Residential Care Facilities	2,167	2,544	377
452	General Merchandise Stores	3,133	3,377	244
902	State Government	4,841	5,011	170

Source: ADE, Inc.; data from EMSI.

The combined occupational demand from these growth industries is shown in Table 13 below.

SOC Code	Occupation	Employed in Industry (2012)	Employed in Industry (2017)	Change 2012_2017	NAICS Codes for Related Growth Industries
53-7199	Material Moving Workers, All Other	10	11	1	903
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	172	187	17	902, 452, 903, 541
53-6041	Traffic Technicians	26	27	1	903
53-4041	Subway and Streetcar Operators	31	32	1	903

53-3032	Heavy and Tractor-Trailer Truck Drivers	26	28	2	903
53-3022	Bus Drivers, School or Special Client	23	27	4	624
53-3021	Bus Drivers, Transit and Intercity	243	257	14	903, 902
SOC Code	Occupation	Employed in Industry (2012)	Employed in Industry (2017)	Change 2012_2017	NAICS Codes for Related Growth Industries
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	22	23	1	903
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	16	17	3	541
51-8031	Water and Wastewater Treatment Plant and System Operators	168	179	11	903
51-8021	Stationary Engineers and Boiler Operators	23	25	2	902, 903
51-6011	Laundry and Dry-Cleaning Workers	12	13	1	623
51-3011	Bakers	14	16	2	452
51-1011	First-Line Supervisors of Production and Operating Workers	18	19	1	903
49-9098	Helpers--Installation, Maintenance, and Repair Workers	14	15	1	903
49-9071	Maintenance and Repair Workers, General	254	274	20	902, 623, 903, 541
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	13	14	1	903
49-3023	Automotive Service Technicians and Mechanics	23	25	2	903
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	34	36	2	903
47-4799	Construction and Related Workers, All Other	14	15	1	903
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	14	15	1	903
47-4051	Highway Maintenance Workers	26	30	4	903
47-4011	Construction and Building Inspectors	29	32	3	903
47-2152	Plumbers, Pipefitters, and Steamfitters	17	18	1	903
47-2141	Painters, Construction and Maintenance	14	15	1	903
47-2111	Electricians	28	29	1	903
47-2073	Operating Engineers and Other Construction Equipment Operators	56	61	5	903
47-2061	Construction Laborers	33	35	2	903
47-2031	Carpenters	15	16	1	903
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	29	31	2	903
45-4011	Forest and Conservation Workers	10	11	1	903
45-2011	Agricultural Inspectors	16	17	1	902
43-9799	Office and Administrative Support Workers, All Other	283	293	12	902, 903, 541
43-9061	Office Clerks, General	1390	1459	83	902, 624, 621, 452, 623, 903, 541
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	490	500	10	902, 624, 623, 903

SOC Code	Occupation	Employed in Industry (2012)	Employed in Industry (2017)	Change 2012_2017	NAICS Codes for Related Growth Industries
43-6013	Medical Secretaries	611	665	54	621, 903, 541
43-6011	Executive Secretaries and Executive Administrative Assistants	375	390	21	624, 621, 903, 541
43-5081	Stock Clerks and Order Fillers	423	456	33	452, 903
51-3011	Bakers	14	16	2	452
43-5071	Shipping, Receiving, and Traffic Clerks	72	74	3	452, 541
43-5061	Production, Planning, and Expediting Clerks	11	13	--	541
43-5041	Meter Readers, Utilities	35	37	2	903
43-5032	Dispatchers, Except Police, Fire, and Ambulance	21	22	1	903
43-5031	Police, Fire, and Ambulance Dispatchers	48	53	5	903
43-4199	Information and Record Clerks, All Other	45	47	2	903
43-4171	Receptionists and Information Clerks	553	601	48	902, 624, 621, 623, 903
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	54	58	4	902, 452, 903
43-4151	Order Clerks	19	20	1	452
43-4121	Library Assistants, Clerical	112	119	7	903
43-4111	Interviewers, Except Eligibility and Loan	44	46	2	903
43-4071	File Clerks	54	57	3	903
43-4061	Eligibility Interviewers, Government Programs	181	190	9	902, 903
43-4051	Customer Service Representatives	233	258	33	902,621,452,903,5
43-3051	Payroll and Timekeeping Clerks	98	103	6	621, 903, 541
43-3031	Bookkeeping, Accounting, and Auditing Clerks	505	531	35	902, 624, 621, 452, 623, 903, 541
43-3021	Billing and Posting Clerks	249	262	16	621, 903, 541
43-3011	Bill and Account Collectors	32	35	3	621
43-1011	First-Line Supervisors of Office and Administrative Support Workers	536	566	36	902,624,621,452,6 23,000,000
41-9799	Sales and Related Workers, All Other	42	46	4	452
41-9041	Telemarketers	13	14	3	541
41-9011	Demonstrators and Product Promoters	26	28	4	541
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	16	19	4	541
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	26	32	6	541
41-3099	Sales Representatives, Services, All Other	104	118	19	541
41-3011	Advertising Sales Agents	21	25	6	541
41-2031	Retail Salespersons	1,188	1,245	57	624, 452
41-2021	Counter and Rental Clerks	10	11	1	452
41-2011	Cashiers	515	578	63	452, 903
41-1012	First-Line Supervisors of Non-Retail Sales Workers	12	14	2	541
41-1011	First-Line Supervisors of Retail Sales Workers	232	255	23	452

SOC Code	Occupation	Employed in Industry (2012)	Employed in Industry (2017)	Change 2012_2017	NAICS Codes for Related Growth Industries
39-9032	Recreation Workers	226	252	26	624, 623, 903
39-9031	Fitness Trainers and Aerobics Instructors	27	28	1	903
39-9021	Personal Care Aides	287	390	103	624, 621, 623
39-9011	Childcare Workers	239	246	7	624, 903
39-5012	Hairdressers, Hairstylists, and Cosmetologists	43	44	1	452
39-3091	Amusement and Recreation Attendants	68	72	4	903
39-3019	Gaming Service Workers, All Other	17	19	2	903
39-3011	Gaming Dealers	47	52	5	903
39-2021	Nonfarm Animal Caretakers	41	43	9	541
39-1021	First-Line Supervisors of Personal Service Workers	42	48	6	624, 623, 903
37-3011	Landscaping and Grounds keeping Workers	225	236	11	902, 903
37-2012	Maids and Housekeeping Cleaners	160	180	20	623, 903
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	493	521	29	902,624,621,452,6 23,000,000
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Grounds keeping Workers	28	29	1	903
35-9021	Dishwashers	20	24	4	623
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	13	16	3	623
35-3041	Food Servers, Non-restaurant	95	114	19	623, 903
35-3031	Waiters and Waitresses	32	39	7	623, 903
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	76	85	9	452, 623, 903
35-2012	Cooks, Institution and Cafeteria	104	125	21	624, 623
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	43	47	4	623, 903
33-9099	Protective Service Workers, All Other	22	23	1	903
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	68	72	4	903
33-9032	Security Guards	120	129	9	902, 452, 903
33-9011	Animal Control Workers	126	132	6	903
33-3052	Transit and Railroad Police	16	17	1	903
33-3051	Police and Sheriff's Patrol Officers	660	705	45	902, 903
33-3041	Parking Enforcement Workers	78	81	3	903
33-3031	Fish and Game Wardens	12	13	1	902
33-3021	Detectives and Criminal Investigators	28	31	3	902, 903
33-3012	Correctional Officers and Jailers	1131	1168	37	902, 903
33-2021	Fire Inspectors and Investigators	33	34	1	903
33-2011	Firefighters	532	565	33	903
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	32	35	3	903
33-1012	First-Line Supervisors of Police and Detectives	47	50	3	903
33-1011	First-Line Supervisors of Correctional Officers	49	51	2	902, 903

SOC Code	Occupation	Employed in Industry (2012)	Employed in Industry (2017)	Change 2012_2017	NAICS Codes for Related Growth Industries
31-9799	Healthcare Support Workers, All Other	60	64	4	621, 903
31-9093	Medical Equipment Preparers	23	24	1	903
31-9092	Medical Assistants	677	694	17	621, 623, 903
31-9091	Dental Assistants	424	445	21	621
31-2022	Physical Therapist Aides	42	49	7	621
31-2021	Physical Therapist Assistants	18	24	6	621
31-2012	Occupational Therapy Aides	10	11	1	621
31-2011	Occupational Therapy Assistants	14	17	3	621
31-1012	Nursing Aides, Orderlies, and Attendants	697	778	81	621, 623, 903
31-1011	Home Health Aides	667	853	186	902, 624, 621, 623, 903
29-9799	Healthcare Practitioners and Technical Workers, All Other	34	36	2	621, 903
29-2799	Health Technologists and Technicians, All Other	116	122	6	621, 903
29-2081	Opticians, Dispensing	53	54	1	621
29-2071	Medical Records and Health Information Technicians	83	88	5	621, 903
29-2061	Licensed Practical and Licensed Vocational Nurses	534	571	37	902,621,623,903
29-2056	Veterinary Technologists and Technicians	34	36	12	541
29-2055	Surgical Technologists	75	79	4	621, 903
29-2052	Pharmacy Technicians	90	97	7	902, 452, 903
29-2041	Merchandise Displayers and Window Trimmers	210	327	117	621, 903
29-2037	Radiologic Technologists and Technicians	78	84	6	621, 903
29-2032	Diagnostic Medical Sonographers	33	37	4	621, 903
29-2031	Cardiovascular Technologists and Technicians	11	12	1	903
29-2021	Dental Hygienists	157	172	15	621
29-2012	Medical and Clinical Laboratory Technicians	47	49	2	621, 903
29-2011	Medical and Clinical Laboratory Technologists	21	23	2	903
29-1131	Veterinarians	53	54	11	541
29-1127	Speech-Language Pathologists	65	71	6	621, 903
29-1126	Respiratory Therapists	47	49	2	903
29-1123	Physical Therapists	93	108	15	621, 903
29-1122	Occupational Therapists	42	48	6	621, 903
29-1111	Registered Nurses	1672	1780	108	902, 624, 621,
29-1071	Physician Assistants	44	47	3	621
29-1069	Physicians and Surgeons, All Other	126	134	8	621, 903
29-1067	Surgeons	22	23	1	621
29-1065	Pediatricians, General	17	18	1	621
29-1064	Obstetricians and Gynecologists	15	16	1	621

SOC Code	Occupation	Employed in Industry (2012)	Employed in Industry (2017)	Change 2012_2017	NAICS Codes for Related Growth Industries
29-1063	Internists, General	18	20	2	621
29-1062	Family and General Practitioners	109	114	5	621, 903
29-1061	Anesthesiologists	34	36	2	621
29-1051	Pharmacists	36	40	4	452, 903
27-3091	Interpreters and Translators	209	238	42	903, 541
27-3042	Technical Writers	16	18	3	541
27-3041	Editors	11	12	2	541
27-3031	Public Relations Specialists	31	36	7	903, 541
27-2023	Umpires, Referees, and Other Sports Officials	25	29	4	903
27-2022	Coaches and Scouts	40	46	6	903
27-1026	Merchandise Displayers and Window Trimmers	15	16	1	452
27-1024	Graphic Designers	38	41	6	541
27-1014	Multimedia Artists and Animators	15	17	2	541
27-1011	Art Directors	12	13	2	541
25-9099	Education, Training, and Library Workers, All Other	84	86	2	902, 903
25-9041	Teacher Assistants	1195	1240	45	902, 624, 903
25-9031	Instructional Coordinators	26	27	1	902
25-9031	Instructional Coordinators	26	27	1	902
25-9031	Instructional Coordinators	68	72	4	903
25-4031	Library Technicians	156	164	8	903
25-4021	Librarians	52	54	2	903
25-3999	Teachers and Instructors, All Other	2517	2558	41	902, 624, 903, 541
25-3021	Self-Enrichment Education Teachers	11	14	3	624
25-3011	Adult Basic and Secondary Education and Literacy Teachers and Instructors	53	55	2	902, 903
25-2054	Special Education Teachers, Secondary School	79	80	1	903
25-2053	Special Education Teachers, Middle School	24	27	3	903
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	128	139	11	903
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	1062	1069	7	903
25-2023	Career/Technical Education Teachers, Middle School	16	17	1	903
25-2022	Middle School Teachers, Except Special and Career/Technical Education	420	447	27	903
25-2021	Elementary School Teachers, Except Special Education	1202	1277	75	903
25-2012	Kindergarten Teachers, Except Special Education	219	231	12	903
25-2011	Preschool Teachers, Except Special Education	273	281	8	624, 903
25-1099	Postsecondary Teachers	851	879	28	902, 903
23-1011	Lawyers	71	76	5	902, 903

SOC Code	Occupation	Employed in Industry (2012)	Employed in Industry (2017)	Change 2012_2017	NAICS Codes for Related Growth Industries
21-1798	Community and Social Service Specialists, All Other	76	86	10	902, 624, 903
21-1093	Social and Human Service Assistants	191	225	34	902, 624, 621, 623, 903
21-1092	Probation Officers and Correctional Treatment Specialists	184	202	18	902, 903
21-1091	Health Educators	51	55	4	902, 621, 903
21-1023	Mental Health and Substance Abuse Social Workers	41	51	10	624, 621, 903
21-1022	Healthcare Social Workers	35	38	3	621, 903
21-1014	Mental Health Counselors	11	15	4	621
21-1013	Marriage and Family Therapists	105	121	16	902, 624, 621, 903
21-1012	Educational, Guidance, School, and Vocational Counselors	222	235	13	902, 624, 903
21-1011	Substance Abuse and Behavioral Disorder Counselors	71	82	11	624, 621, 903
19-4061	Social Science Research Assistants	14	16	3	541
19-4021	Biological Technicians	21	23	3	541
19-3051	Urban and Regional Planners	35	38	3	903
19-3031	Clinical, Counseling, and School Psychologists	98	104	6	902, 624, 903
19-3022	Survey Researchers	24	25	3	541
19-2042	Geoscientists, Except Hydrologists and Geographers	10	11	--	541
19-2041	Environmental Scientists and Specialists, Including Health	48	54	8	902, 903, 541
19-1042	Medical Scientists, Except Epidemiologists	91	105	19	902, 541
19-1021	Biochemists and Biophysicists	16	18	3	541
19-1013	Soil and Plant Scientists	28	30	3	541
17-3023	Electrical and Electronics Engineering Technicians	11	13	3	541
17-2141	Mechanical Engineers	15	19	5	541
17-2072	Electronics Engineers, Except Computer	11	14	4	541
17-2071	Electrical Engineers	21	25	5	541
17-2061	Computer Hardware Engineers	17	20	3	541
17-2051	Civil Engineers	107	116	14	903, 541
17-2011	Aerospace Engineers	29	33	5	541
15-2031	Operations Research Analysts	22	25	4	541
15-1799	Computer Occupations, All Other	40	46	6	902, 541
15-1179	Information Security Analysts, Web Developers, and Computer Network	64	80	16	903, 541
15-1159	Computer Support Specialists	285	322	31	902, 903, 541
15-1142	Network and Computer Systems Administrators	85	100	16	902, 903, 541
15-1141	Database Administrators	44	53	10	903, 541
15-1133	Software Developers, Systems Software	160	212	51	541
15-1132	Software Developers, Applications	112	149	37	541
15-1131	Computer Programmers	60	73	12	541
15-1121	Computer Systems Analysts	75	95	21	902, 903, 541

SOC Code	Occupation	Employed in Industry (2012)	Employed in Industry (2017)	Change 2012_2017	NAICS Codes for Related Growth Industries
13-2071	Credit Counselors	12	13	2	541
13-2051	Financial Analysts	16	19	4	541
13-2031	Budget Analysts	27	30	3	902, 903
13-2011	Accountants and Auditors	271	293	33	902,903,541
13-1199	Business Operations Specialists, All Other	333	358	33	902,621,903,541
13-1161	Market Research Analysts and Marketing Specialists	118	139	31	541
13-1151	Training and Development Specialists	56	66	11	902,903,541
13-1111	Management Analysts	205	243	54	902,903,541
13-1078	Human Resources, Training, and Labor Relations Specialists, All Other	66	73	8	902, 903, 541
13-1041	Compliance Officers	47	52	5	902, 903
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	27	29	3	903, 541
11-9199	Managers, All Other	58	64	7	602, 903, 541
11-9151	Social and Community Service Managers	50	61	11	624, 903
11-9121	Natural Sciences Managers	16	17	2	541
11-9111	Medical and Health Services Managers	139	153	14	621, 623, 903
11-9041	Architectural and Engineering Managers	26	28	4	541
11-9033	Education Administrators, Postsecondary	17	18	1	902
11-9032	Education Administrators, Elementary and Secondary School	200	202	2	903
11-9031	Education Administrators, Preschool and Childcare Center/Program	55	58	3	624
11-3031	Financial Managers	68	73	7	903, 541
11-3021	Computer and Information Systems Managers	51	62	11	903, 541
11-3011	Administrative Services Managers	95	101	7	902, 621, 541
11-2022	Sales Managers	40	44	5	452, 541
11-2021	Marketing Managers	36	40	6	541
11-1031	Legislators	19	21	2	903
11-1021	General and Operations Managers	369	391	29	624, 621, 452,
11-1011	Chief Executives	48	50	3	903, 541

Source: ADE, Inc.; data from EMSI.

APPENDIX A:

TABLE 14: CLUSTER COMPONENTS BY NAICS CODE	
Agriculture Cluster - Production	
111	Crop Production
112	Animal Production
1141	Fishing
115112	Soil Preparation, Planting, and Cultivating
115113	Crop Harvesting, Primarily by Machine
115114	Postharvest Crop Activities (except Cotton Ginning)
115115	Farm Labor Contractors and Crew Leaders
115116	Farm Management Services
115210	Support Activities for Animal Production
Agriculture Cluster - Processing	
311	Food Manufacturing
312	Beverage and Tobacco Product Manufacturing
321920	Wood Container and Pallet Manufacturing
322211	Corrugated and Solid Fiber Box Manufacturing
Agriculture Cluster - Distribution	
424410	General Line Grocery Merchant Wholesalers
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers
424450	Confectionery Merchant Wholesalers
424470	Meat and Meat Product Merchant Wholesalers
424480	Fresh Fruit and Vegetable Merchant Wholesalers
424490	Other Grocery and Related Products Merchant Wholesalers
424820	Wine and Distilled Alcoholic Beverage Merchant Wholesalers
424910	Farm Supplies Merchant Wholesalers
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers
445110	Supermarkets and Other Grocery (except Convenience)
445120	Convenience Stores
445210	Meat Markets
445230	Fruit and Vegetable Markets
445291	Baked Goods Stores
445292	Confectionery and Nut Stores
445299	All Other Specialty Food Stores
445310	Beer, Wine, and Liquor Stores
481111	Scheduled Passenger Air Transportation
481211	Nonscheduled Chartered Passenger Air Transportation
482	Rail Transportation
484110	General Freight Trucking, Local
484121	General Freight Trucking, Long-Distance, Truckload
484122	General Freight Trucking, Long-Distance, Less Than
484220	Specialized Freight (except Used Goods) Trucking, Local
484230	Specialized Freight (except Used Goods) Trucking, Long-
488119	Other Airport Operations
488190	Other Support Activities for Air Transportation
488510	Freight Transportation Arrangement
493110	General Warehousing and Storage
493120	Refrigerated Warehousing and Storage

Agriculture Cluster - Support	
221310	Water Supply and Irrigation Systems
237110	Water and Sewer Line and Related Structures Construction
325314	Fertilizer (Mixing Only) Manufacturing
325320	Pesticide and Other Agricultural Chemical Manufacturing
333111	Farm Machinery and Equipment Manufacturing
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers
423830	Industrial Machinery and Equipment Merchant Wholesalers
423840	Industrial Supplies Merchant Wholesalers
423850	Service Establishment Equipment and Supplies Merchant Wholesalers
444220	Nursery, Garden Center, and Farm Supply Stores
522292	Real Estate Credit
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing
541380	Testing Laboratories
541613	Marketing Consulting Services
541840	Media Representatives
541870	Advertising Material Distribution Services
541890	Other Services Related to Advertising
541940	Veterinary Services
551114	Corporate, Subsidiary, and Regional Managing Offices
561110	Office Administrative Services
561311	Employment Placement Agencies
561320	Temporary Help Services
561710	Exterminating and Pest Control Services
561730	Landscaping Services
562920	Materials Recovery Facilities
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance

Source: ADE, Inc.; data from EMSI.

Notes: Industries included in the cluster each account for a minimum of 10 jobs.