



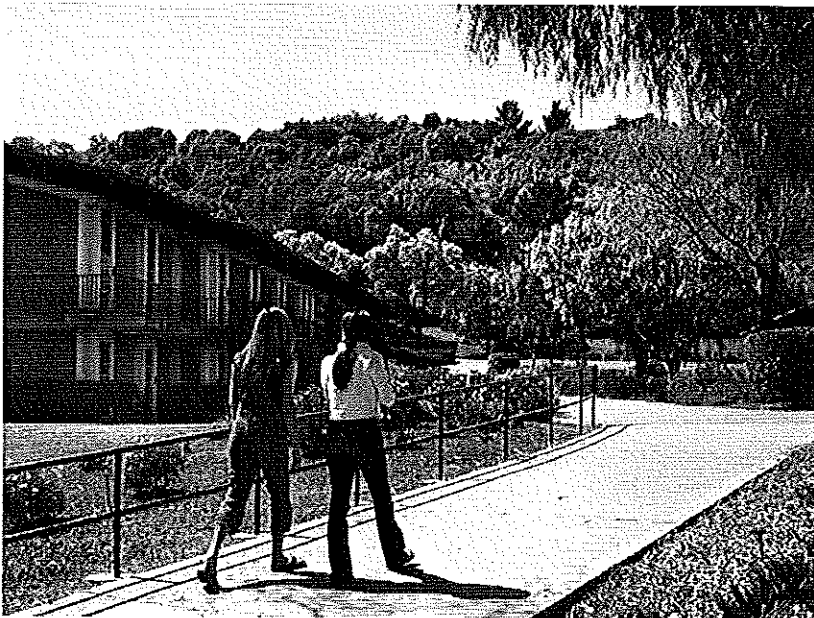
CENTERS OF EXCELLENCE  
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ENVIRONMENTAL SCAN REPORT

# GAVILAN COLLEGE

## Rural Opportunities Study

APRIL, 2010



### CENTER OF EXCELLENCE Central Valley Region

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An Initiative of



**ECONOMIC &  
WORKFORCE  
DEVELOPMENT**  
through the  
**CALIFORNIA  
COMMUNITY  
COLLEGES**



**Mission:** The Centers of Excellence, in partnership with business and industry, deliver regional workforce research customized for community college decision making and resource development.

**Vision:** We aspire to be the premier source of regional economic and workforce information and insight for community colleges.

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Centers of Excellence, Economic and Workforce Development Program

Cover picture taken from Gavilan College Website: <http://www.gavilan.edu/tour/SocialScienceBuilding.html>

*Please consider the environment before printing. This document is designed for double-sided printing.*

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## ADD A HIGHLIGHT SENTENCE

### Introduction and Scope

This environmental scan report is prepared for Gavilan College from the California Community Colleges Centers of Excellence. This report provides overview information and analysis of demographic characteristics, business concentration, industry makeup, and high-growth occupations within Gavilan College's service area. The report is aimed at assisting Gavilan College administration and faculty in decision-making regarding future educational and training programs that would be appropriate and timely for the current demographic and economic situation in the area. Based on a request submitted by Gavilan College, the following information is included in this report:

- Top industries and occupations within the College service area
- Information on electricians and electrical workers
- Information on the potential for solar occupations within the College service area
- Demographic and population information

The analysis in this report includes data for the Gavilan College service area (see map on the following page). The table below lists the cities by zip codes that comprise the service area for this report.

Zip Code	City
95013	Coyote
95020	Gilroy
95021	Gilroy
95037	Morgan Hill
95046	San Martin
95119	San Jose
95139	San Jose
All	San Benito County

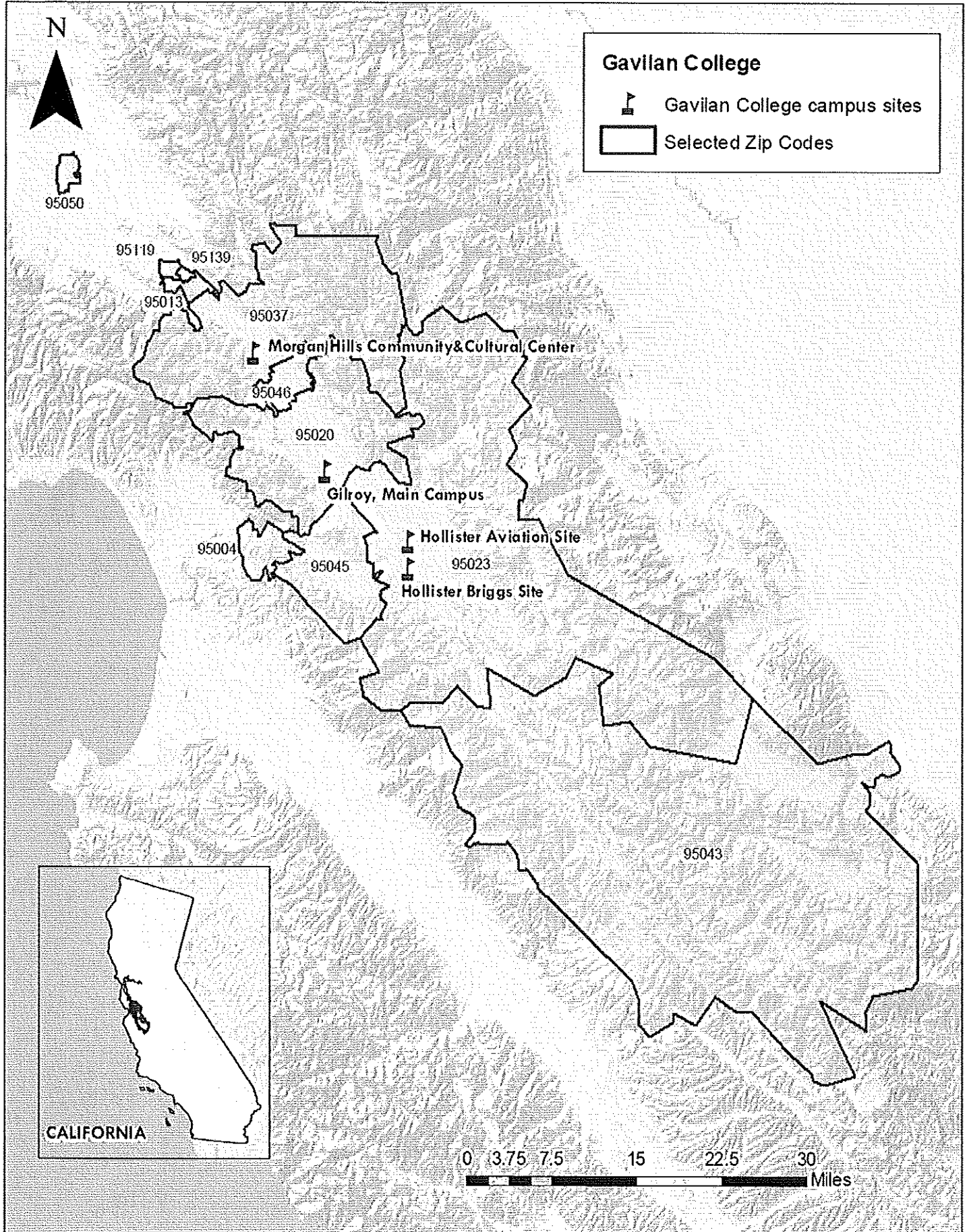
This report contains information compiled from InfoUSA employer listings and analyzed using Environmental System Research Institute's (ESRI) GIS software, ArcView 9.3 with Business Analyst. Occupational and industry projection data was provided by Economic Modeling Specialists Inc. (EMSI). Appendix A contains further information on how to use this report.

### About the Centers of Excellence

The Centers of Excellence (COE), in partnership with business and industry, deliver regional workforce research customized for community college decision making and resource development. The information provided through the COE can be useful for beginning, revising, or updating economic development and Career Technical (CTE) programs, strengthening funding applications, assisting in program review or accreditation, and in supporting strategic planning efforts.

The COE Initiative is funded in part by the California Community Colleges Chancellor's Office, Economic and Workforce Development program. The Centers aspire to be the premier source of regional economic and workforce information and insight for California's community colleges.

# Gavilan College Service Area by Zip Code Boundaries

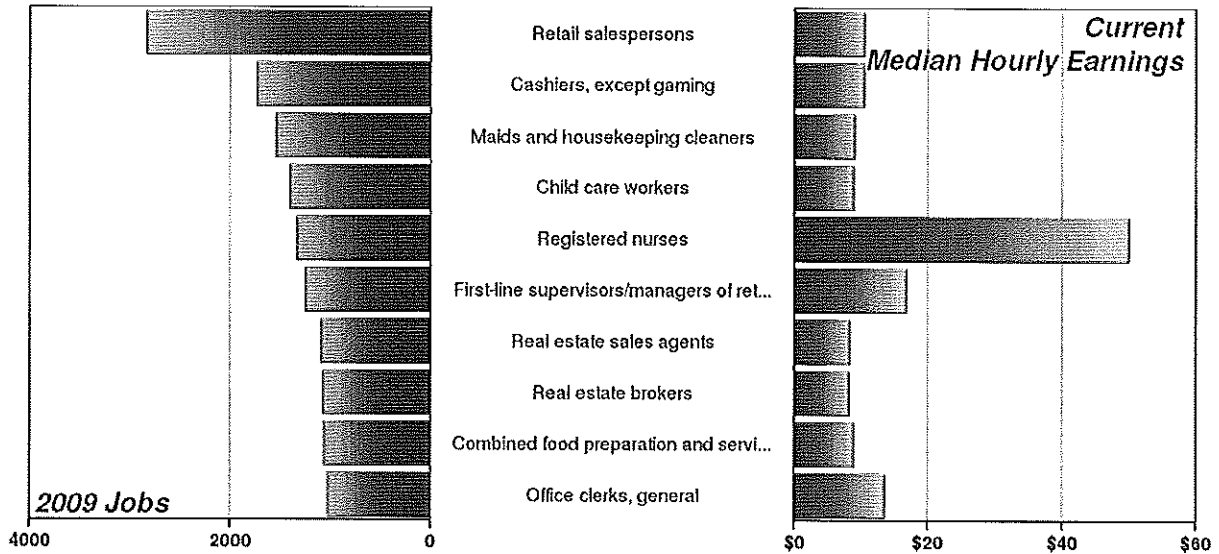


Created by Center of Excellence, California Community Colleges. Software and data provided by ESRI.

## Current and Projected Occupation Breakdown

An analysis of occupations within the Gavilan College service area was conducted to determine the overall occupational makeup of the area as well as what the top growth occupations are. Top occupations are sorted by total number of jobs, percent growth rate, and median hourly wages. All occupations included in this analysis require an Associate's Degree or less to be employed in the profession. Appendix B contains GIS maps of the top industries within the Gavilan College service area where many of the occupations in this analysis are located.

### Largest Occupations, Gavilan College Service Area



### Largest Occupations 2009-2012

SOC Code	Description	2009 Jobs	2012 Jobs	New Jobs	% Change	Current Median Hourly Earnings
41-2031	Retail salespersons	2,836	3,116	280	10%	\$10.55
41-2011	Cashiers, except gaming	1,743	1,815	72	4%	\$10.57
37-2012	Maids and housekeeping cleaners	1,556	1,731	175	11%	\$9.13
39-9011	Child care workers	1,412	1,531	119	8%	\$8.97
29-1111	Registered nurses	1,342	1,466	124	9%	\$50.07
41-1011	First-line supervisors/managers of retail sales workers	1,254	1,340	86	7%	\$16.82
41-9022	Real estate sales agents	1,106	1,321	215	19%	\$8.36
41-9021	Real estate brokers	1,088	1,301	213	20%	\$8.30
35-3021	Combined food preparation and serving workers, including fast food	1,075	1,120	45	4%	\$9.02
43-9061	Office clerks, general	1,040	1,125	85	8%	\$13.52
35-3031	Waiters and waitresses	995	1,010	15	2%	\$8.71
11-9012	Farmers and ranchers	950	866	-84	-9%	\$10.03
43-3031	Bookkeeping, accounting, and auditing clerks	916	977	61	7%	\$17.55
11-9199	Managers, all other	911	981	70	8%	\$24.69
43-5081	Stock clerks and order fillers	908	1,003	95	10%	\$10.48
53-3032	Truck drivers, heavy and tractor-trailer	892	973	81	9%	\$18.18
43-6011	Executive secretaries and administrative assistants	843	909	66	8%	\$21.30
47-2031	Carpenters	840	930	90	11%	\$27.00
37-3011	Landscaping and groundskeeping workers	792	869	77	10%	\$11.49
53-7062	Laborers, freight, stock, and material movers	779	829	50	6%	\$11.26
47-2061	Construction laborers	744	835	91	12%	\$19.15
43-1011	First-line supervisors/managers of office and	687	738	51	7%	\$22.90

	administrative support workers					
41-9091	Door-to-door sales workers, news and street vendors, and related workers	670	646	-24	-4%	\$8.03
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	666	697	31	5%	\$11.00
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	664	710	46	7%	\$29.30
53-3033	Truck drivers, light or delivery services	586	624	38	6%	\$13.62
43-4051	Customer service representatives	583	641	58	10%	\$17.65
27-4021	Photographers	577	578	1	0%	\$14.09
43-6013	Medical secretaries	557	597	40	7%	\$16.01
35-2021	Food preparation workers	553	563	10	2%	\$9.38

### Largest Occupations 2009-2013

SOC Code	Description	2009 Jobs	2013 Jobs	New Jobs	% Change	Current Median Hourly Earnings
41-2031	Retail salespersons	2,836	3,192	356	13%	\$10.55
41-2011	Cashiers, except gaming	1,743	1,834	91	5%	\$10.57
37-2012	Maids and housekeeping cleaners	1,556	1,771	215	14%	\$9.13
39-9011	Child care workers	1,412	1,558	146	10%	\$8.97
29-1111	Registered nurses	1,342	1,499	157	12%	\$50.07
41-1011	First-line supervisors/managers of retail sales workers	1,254	1,362	108	9%	\$16.82
41-9022	Real estate sales agents	1,106	1,373	267	24%	\$8.36
41-9021	Real estate brokers	1,088	1,352	264	24%	\$8.30
35-3021	Combined food preparation and serving workers, including fast food	1,075	1,131	56	5%	\$9.02
43-9061	Office clerks, general	1,040	1,151	111	11%	\$13.52
35-3031	Waiters and waitresses	995	1,013	18	2%	\$8.71
11-9012	Farmers and ranchers	950	846	-104	-11%	\$10.03
43-3031	Bookkeeping, accounting, and auditing clerks	916	995	79	9%	\$17.55
11-9199	Managers, all other	911	999	88	10%	\$24.69
43-5081	Stock clerks and order fillers	908	1,028	120	13%	\$10.48
53-3032	Truck drivers, heavy and tractor-trailer	892	997	105	12%	\$18.18
43-6011	Executive secretaries and administrative assistants	843	929	86	10%	\$21.30
47-2031	Carpenters	840	954	114	14%	\$27.00
37-3011	Landscaping and groundskeeping workers	792	890	98	12%	\$11.49
53-7062	Laborers and freight, stock, and material movers, hand	779	843	64	8%	\$11.26
47-2061	Construction laborers	744	861	117	16%	\$19.15
43-1011	First-line supervisors/managers of office and administrative support workers	687	752	65	9%	\$22.90
41-9091	Door-to-door sales workers, news and street vendors, and related workers	670	640	-30	-4%	\$8.03
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	666	704	38	6%	\$11.00
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	664	725	61	9%	\$29.30
53-3033	Truck drivers, light or delivery services	586	635	49	8%	\$13.62
43-4051	Customer service representatives	583	660	77	13%	\$17.65
27-4021	Photographers	577	578	1	0%	\$14.09
43-6013	Medical secretaries	557	608	51	9%	\$16.01
35-2021	Food preparation workers	553	565	12	2%	\$9.38

## Largest Occupations 2009-2015

SOC Code	Description	2009 Jobs	2015 Jobs	New Jobs	% Change	Median Hourly Earnings
41-2031	Retail salespersons	2,836	3,288	452	16%	\$10.55
41-2011	Cashiers, except gaming	1,743	1,855	112	6%	\$10.57
37-2012	Maids and housekeeping cleaners	1,556	1,824	268	17%	\$9.13
39-9011	Child care workers	1,412	1,603	191	14%	\$8.97
29-1111	Registered nurses	1,342	1,550	208	15%	\$50.07
41-1011	First-line supervisors/managers of retail sales workers	1,254	1,386	132	11%	\$16.82
41-9022	Real estate sales agents	1,106	1,442	336	30%	\$8.36
41-9021	Real estate brokers	1,088	1,420	332	31%	\$8.30
35-3021	Combined food preparation and serving workers, including fast food	1,075	1,146	71	7%	\$9.02
43-9061	Office clerks, general	1,040	1,190	150	14%	\$13.52
35-3031	Waiters and waitresses	995	1,016	21	2%	\$8.71
11-9012	Farmers and ranchers	950	823	-127	-13%	\$10.03
43-3031	Bookkeeping, accounting, and auditing clerks	916	1,023	107	12%	\$17.55
11-9199	Managers, all other	911	1,023	112	12%	\$24.69
43-5081	Stock clerks and order fillers	908	1,062	154	17%	\$10.48
53-3032	Truck drivers, heavy and tractor-trailer	892	1,039	147	16%	\$18.18
43-6011	Executive secretaries and administrative assistants	843	962	119	14%	\$21.30
47-2031	Carpenters	840	971	131	16%	\$27.00
37-3011	Landscaping and groundskeeping workers	792	918	126	16%	\$11.49
53-7062	Laborers and freight, stock, and material movers, hand	779	862	83	11%	\$11.26
47-2061	Construction laborers	744	889	145	19%	\$19.15
43-1011	First-line supervisors/managers of office and administrative support workers	687	773	86	13%	\$22.90
41-9091	Door-to-door sales workers, news and street vendors, and related workers	670	628	-42	-6%	\$8.03
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	666	712	46	7%	\$11.00
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	664	751	87	13%	\$29.30
53-3033	Truck drivers, light or delivery services	586	652	66	11%	\$13.62
43-4051	Customer service representatives	583	694	111	19%	\$17.65
27-4021	Photographers	577	580	3	1%	\$14.09
43-6013	Medical secretaries	557	630	73	13%	\$16.01
35-2021	Food preparation workers	553	565	12	2%	\$9.38

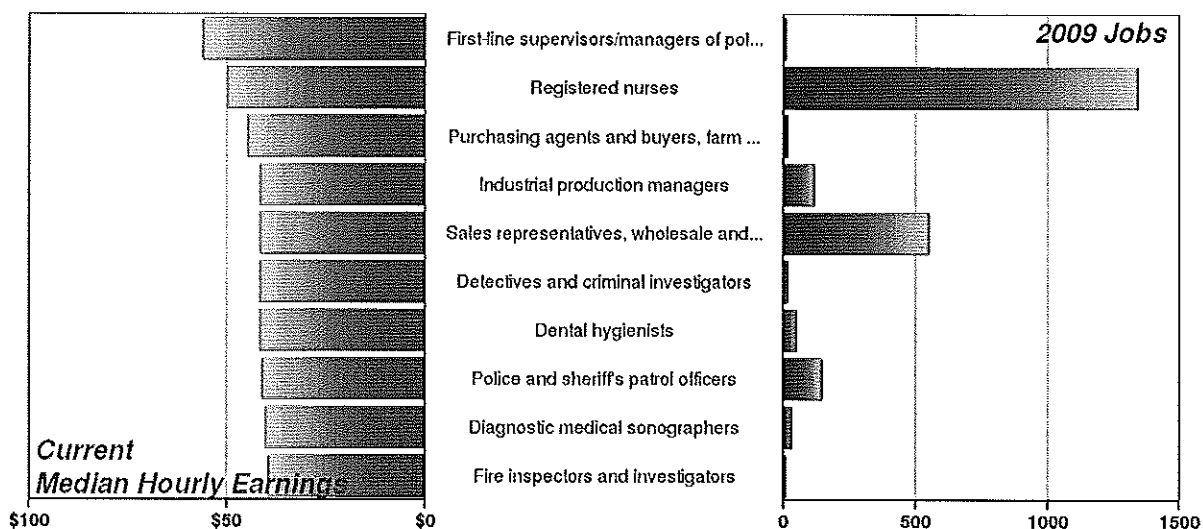
The largest single occupation in the Gavilan College service area is retail salespersons (2,836 jobs in 2009). With the exception of door-to-door sales workers and farmers, all the top occupations (by number of jobs) in the Gavilan service area are projected to experience growth in the next three to five years.

### Occupational Highlights:

- 93% of the largest occupations within the study area (28 out of 30) have positive growth projections over the next five years.
- Half of the largest occupations provide a decent wage for workers.
- The top 30 occupations are projected to add 3,712 new jobs in the next five years to the local economy.



## Highest Paying Occupations, Gavilan College Service Area



## Highest Paying Occupations 2009-2012

SOC Code	Description	2009 Jobs	2012 Jobs	New Jobs	% Change	Current Median Hourly Earnings
33-1012	First-line supervisors of police and detectives	12	13	1	8%	\$56.28
29-1111	Registered nurses	1,342	1,466	124	9%	\$50.07
13-1021	Purchasing agents and buyers, farm products	18	20	2	11%	\$44.73
11-3051	Industrial production managers	119	119	0	0%	\$41.69
41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products	550	631	81	15%	\$41.68
33-3021	Detectives and criminal investigators	20	21	1	5%	\$41.59
29-2021	Dental hygienists	49	54	5	10%	\$41.55
33-3051	Police and sheriff's patrol officers	145	157	12	8%	\$41.14
29-2032	Diagnostic medical sonographers	31	32	1	3%	\$40.23
33-2021	Fire inspectors and investigators	12	15	3	25%	\$39.42
49-9051	Electrical power-line installers and repairers	47	48	1	2%	\$38.61
29-1126	Respiratory therapists	52	56	4	8%	\$37.06
29-2034	Radiologic technologists and technicians	67	71	4	6%	\$35.96
15-1099	Computer specialists, all other	104	111	7	7%	\$35.51
11-3071	Transportation, storage, and distribution managers	64	66	2	3%	\$34.57
47-1011	First-line supervisors/managers of construction trades and extraction workers	445	496	51	11%	\$32.61
47-2221	Structural iron and steel workers	30	31	1	3%	\$31.91
47-2152	Plumbers, pipefitters, and steamfitters	212	247	35	17%	\$31.84
43-5031	Police, fire, and ambulance dispatchers	25	28	3	12%	\$30.52
13-1051	Cost estimators	154	176	22	14%	\$30.26
33-2011	Fire fighters	68	76	8	12%	\$30.22
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	158	165	7	4%	\$30.21
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	664	710	46	7%	\$29.30
13-1023	Purchasing agents, except wholesale, retail, and farm products	162	167	5	3%	\$29.10
13-1031	Claims adjusters, examiners, and investigators	64	68	4	6%	\$28.51
47-2043	Floor sanders and finishers	12	13	1	8%	\$28.36
17-3012	Electrical and electronics drafters	41	39	-2	-5%	\$28.33
41-3099	Sales representatives, services, all other	325	353	28	9%	\$28.26
47-2042	Floor layers, except carpet, wood, and hard tiles	32	35	3	9%	\$28.26
17-3027	Mechanical engineering technicians	33	31	-2	-6%	\$28.15

\*Note: Occupations with fewer than 10 employees are not shown.

### Highest Paying Occupations 2009-2013

SOC Code	Description	2009 Jobs	2013 Jobs	New Jobs	% Change	Current Median Hourly Earnings
33-1012	First-line supervisors/managers of police and detectives	12	13	1	8%	\$56.28
29-1111	Registered nurses	1,342	1,499	157	12%	\$50.07
13-1021	Purchasing agents and buyers, farm products	18	20	2	11%	\$44.73
11-3051	Industrial production managers	119	121	2	2%	\$41.69
41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products	550	654	104	19%	\$41.68
33-3021	Detectives and criminal investigators	20	22	2	10%	\$41.59
29-2021	Dental hygienists	49	56	7	14%	\$41.55
33-3051	Police and sheriff's patrol officers	145	160	15	10%	\$41.14
29-2032	Diagnostic medical sonographers	31	33	2	6%	\$40.23
33-2021	Fire inspectors and investigators	12	15	3	25%	\$39.42
49-9051	Electrical power-line installers and repairers	47	48	1	2%	\$38.61
29-1126	Respiratory therapists	52	58	6	12%	\$37.06
29-2034	Radiologic technologists and technicians	67	72	5	7%	\$35.96
15-1099	Computer specialists, all other	104	113	9	9%	\$35.51
11-3071	Transportation, storage, and distribution managers	64	67	3	5%	\$34.57
47-1011	First-line supervisors/managers of construction trades and extraction workers	445	510	65	15%	\$32.61
47-2221	Structural iron and steel workers	30	31	1	3%	\$31.91
47-2152	Plumbers, pipefitters, and steamfitters	212	257	45	21%	\$31.84
43-5031	Police, fire, and ambulance dispatchers	25	29	4	16%	\$30.52
13-1051	Cost estimators	154	182	28	18%	\$30.26
33-2011	Fire fighters	68	78	10	15%	\$30.22
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	158	168	10	6%	\$30.21
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	664	725	61	9%	\$29.30
13-1023	Purchasing agents, except wholesale, retail, and farm products	162	170	8	5%	\$29.10
13-1031	Claims adjusters, examiners, and investigators	64	70	6	9%	\$28.51
47-2043	Floor sanders and finishers	12	13	1	8%	\$28.36
17-3012	Electrical and electronics drafters	41	39	-2	-5%	\$28.33
41-3099	Sales representatives, services, all other	325	361	36	11%	\$28.26
47-2042	Floor layers, except carpet, wood, and hard tiles	32	36	4	13%	\$28.26
17-3027	Mechanical engineering technicians	33	31	-2	-6%	\$28.15

\*Note: Occupations with fewer than 10 employees are not shown.

### Highest Paying Occupations 2009-2015

SOC Code	Description	2009 Jobs	2015 Jobs	New Jobs	% Change	Current Median Hourly Earnings
33-1012	First-line supervisors/managers of police and detectives	12	13	1	8%	\$56.28
29-1111	Registered nurses	1,342	1,550	208	15%	\$50.07
13-1021	Purchasing agents and buyers, farm products	18	21	3	17%	\$44.73
11-3051	Industrial production managers	119	125	6	5%	\$41.69
41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products	550	685	135	25%	\$41.68
33-3021	Detectives and criminal investigators	20	22	2	10%	\$41.59
29-2021	Dental hygienists	49	58	9	18%	\$41.55
33-3051	Police and sheriff's patrol officers	145	164	19	13%	\$41.14
29-2032	Diagnostic medical sonographers	31	34	3	10%	\$40.23
33-2021	Fire inspectors and investigators	12	17	5	42%	\$39.42
49-9051	Electrical power-line installers and repairers	47	48	1	2%	\$38.61

29-1126	Respiratory therapists	52	59	7	13%	\$37.06
29-2034	Radiologic technologists and technicians	67	74	7	10%	\$35.96
15-1099	Computer specialists, all other	104	117	13	13%	\$35.51
11-3071	Transportation, storage, and distribution managers	64	68	4	6%	\$34.57
47-1011	First-line supervisors/managers of construction trades and extraction workers	445	522	77	17%	\$32.61
47-2221	Structural iron and steel workers	30	31	1	3%	\$31.91
47-2152	Plumbers, pipefitters, and steamfitters	212	264	52	25%	\$31.84
43-5031	Police, fire, and ambulance dispatchers	25	30	5	20%	\$30.52
13-1051	Cost estimators	154	192	38	25%	\$30.26
33-2011	Fire fighters	68	82	14	21%	\$30.22
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	158	172	14	9%	\$30.21
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	664	751	87	13%	\$29.30
13-1023	Purchasing agents, except wholesale, retail, and farm products	162	179	17	10%	\$29.10
13-1031	Claims adjusters, examiners, and investigators	64	72	8	13%	\$28.51
47-2043	Floor sanders and finishers	12	13	1	8%	\$28.36
17-3012	Electrical and electronics drafters	41	40	-1	-2%	\$28.33
41-3099	Sales representatives, services, all other	325	373	48	15%	\$28.26
47-2042	Floor layers, except carpet, wood, and hard tiles	32	36	4	13%	\$28.26
17-3027	Mechanical engineering technicians	33	31	-2	-6%	\$28.15

\*Note: Occupations with fewer than 10 employees are not shown.

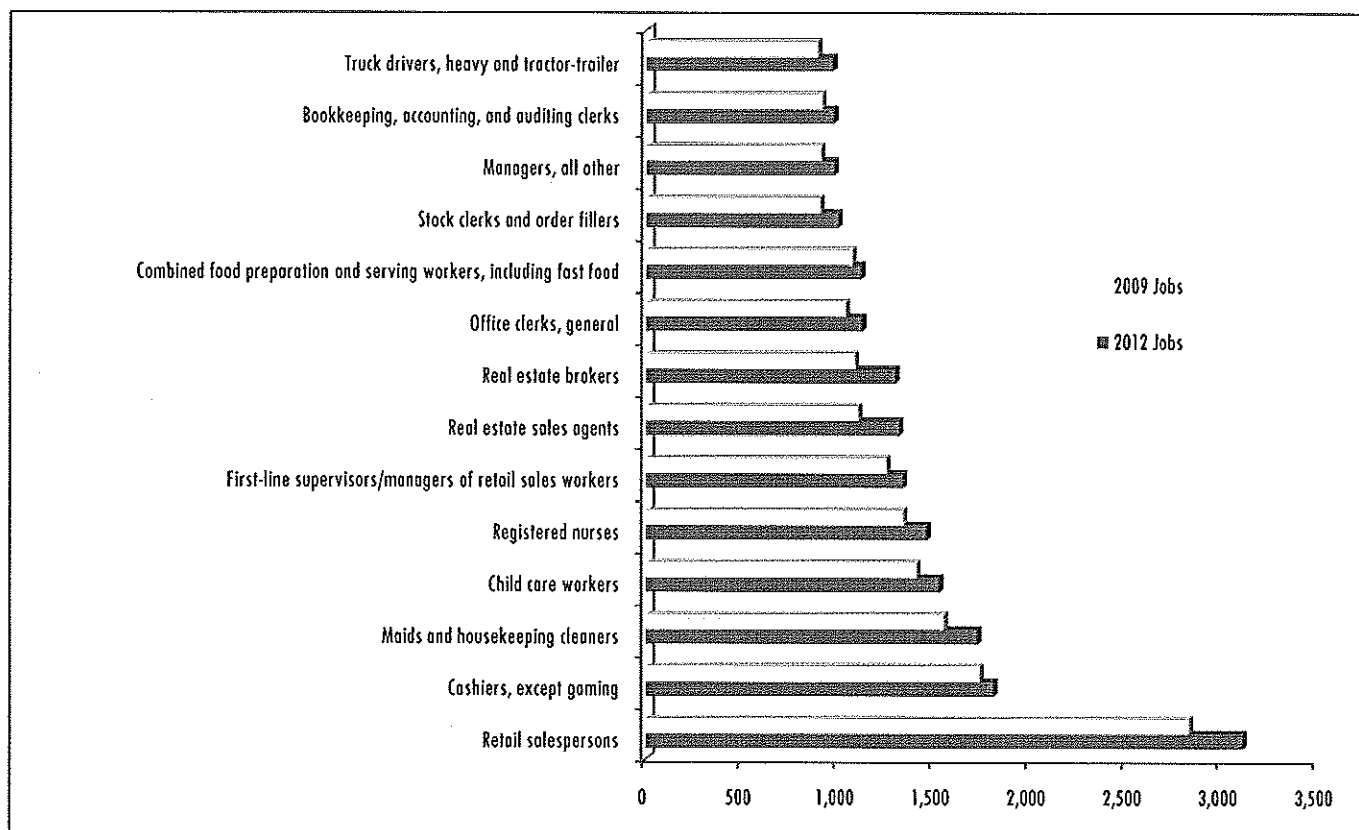
The preceding data highlights the highest paying occupations in the Gavilan College service area requiring an AA Degree or less for employment. Of these occupations, registered nurses and sales representatives exhibit strong projected growth.

#### Occupational Highlights:

- 93% of the highest paying occupations have positive growth projections over the next five years.
- All 30 occupations provide wages above the median household earnings.
- The 30 highest paying occupations are projected to add 786 new jobs in the next five years to the local economy.

# Fastest Growing Occupations, Gavilan College Service Area

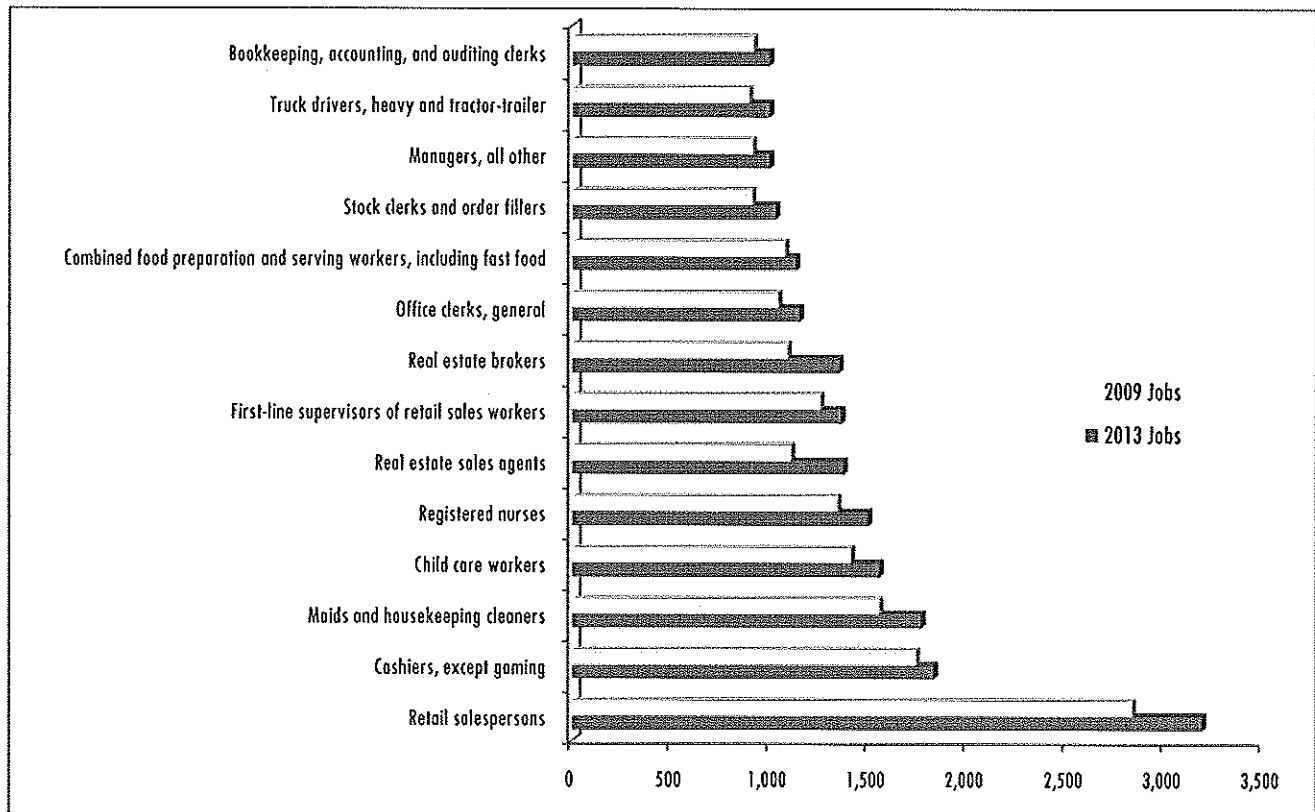
## Fastest Growing Occupations 2009-2012



SOC Code	Description	2009 Jobs	2012 Jobs	New Jobs	Growth %	Current Median Hourly Earnings
41-2031	Retail salespersons	2,836	3,116	280	10%	\$10.55
41-9022	Real estate sales agents	1,106	1,321	215	19%	\$8.36
41-9021	Real estate brokers	1,088	1,301	213	20%	\$8.30
37-2012	Maids and housekeeping cleaners	1,556	1,731	175	11%	\$9.13
29-1111	Registered nurses	1,342	1,466	124	9%	\$50.07
39-9011	Child care workers	1,412	1,531	119	8%	\$8.97
43-5081	Stock clerks and order fillers	908	1,003	95	10%	\$10.48
51-7011	Cabinetmakers and bench carpenters	304	397	93	31%	\$14.09
47-2061	Construction laborers	744	835	91	12%	\$19.15
47-2031	Carpenters	840	930	90	11%	\$27.00
41-1011	First-line supervisors/managers of retail sales workers	1,254	1,340	86	7%	\$16.82
39-9021	Personal and home care aides	521	606	85	16%	\$9.89
43-9061	Office clerks, general	1,040	1,125	85	8%	\$13.52
41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products	550	631	81	15%	\$41.68
53-3032	Truck drivers, heavy and tractor-trailer	892	973	81	9%	\$18.18
37-3011	Landscaping and groundskeeping workers	792	869	77	10%	\$11.49
41-2011	Cashiers, except gaming	1,743	1,815	72	4%	\$10.57
11-9199	Managers, all other	911	981	70	8%	\$24.69
47-2111	Electricians	287	355	68	24%	\$25.70
43-6011	Executive secretaries and administrative assistants	843	909	66	8%	\$21.30
43-3031	Bookkeeping, accounting, and auditing clerks	916	977	61	7%	\$17.55
43-4051	Customer service representatives	583	641	58	10%	\$17.65
43-1011	First-line supervisors of office and administrative support workers	687	738	51	7%	\$22.90

47-1011	First-line supervisors/managers of construction trades and extraction workers	445	496	51	11%	\$32.61
53-7062	Laborers and freight, stock, and material movers	779	829	50	6%	\$11.26
31-1012	Nursing aides, orderlies, and attendants	471	518	47	10%	\$14.59
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	664	710	46	7%	\$29.30
13-2021	Appraisers and assessors of real estate	232	277	45	19%	\$9.44
35-3021	Combined food preparation and serving workers, including fast food	1,075	1,120	45	4%	\$9.02
41-1012	First-line supervisors of non-retail sales workers	453	497	44	10%	\$26.82

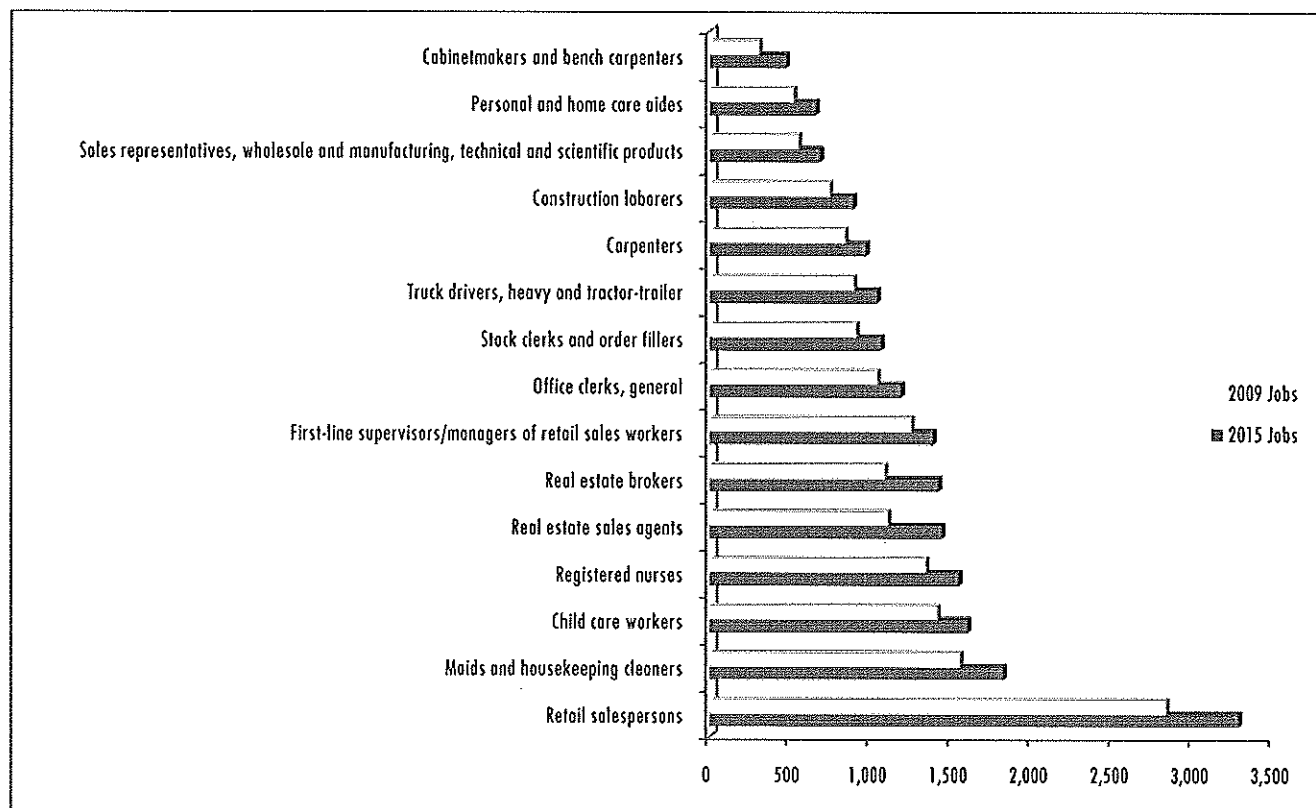
### Fastest Growing Occupations 2009-2013



SOC Code	Description	2009 Jobs	2013 Jobs	New Jobs	Growth %	Median Hourly Earnings
41-2031	Retail salespersons	2,836	3,192	356	13%	\$10.55
41-9022	Real estate sales agents	1,106	1,373	267	24%	\$8.36
41-9021	Real estate brokers	1,088	1,352	264	24%	\$8.30
37-2012	Maids and housekeeping cleaners	1,556	1,771	215	14%	\$9.13
29-1111	Registered nurses	1,342	1,499	157	12%	\$50.07
39-9011	Child care workers	1,412	1,558	146	10%	\$8.97
51-7011	Cabinetmakers and bench carpenters	304	426	122	40%	\$14.09
43-5081	Stock clerks and order fillers	908	1,028	120	13%	\$10.48
47-2061	Construction laborers	744	861	117	16%	\$19.15
47-2031	Carpenters	840	954	114	14%	\$27.00
43-9061	Office clerks, general	1,040	1,151	111	11%	\$13.52
41-1011	First-line supervisors of retail sales workers	1,254	1,362	108	9%	\$16.82
53-3032	Truck drivers, heavy and tractor-trailer	892	997	105	12%	\$18.18
39-9021	Personal and home care aides	521	626	105	20%	\$9.89
41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products	550	654	104	19%	\$41.68

37-3011	Landscaping and groundskeeping workers	792	890	98	12%	\$11.49
41-2011	Cashiers, except gaming	1,743	1,834	91	5%	\$10.57
11-9199	Managers, all other	911	999	88	10%	\$24.69
47-2111	Electricians	287	373	86	30%	\$25.70
43-6011	Executive secretaries and administrative assistants	843	929	86	10%	\$21.30
43-3031	Bookkeeping, accounting, and auditing clerks	916	995	79	9%	\$17.55
43-4051	Customer service representatives	583	660	77	13%	\$17.65
47-1011	First-line supervisors/managers of construction trades and extraction workers	445	510	65	15%	\$32.61
43-1011	First-line supervisors/managers of office and administrative support workers	687	752	65	9%	\$22.90
53-7062	Laborers and freight, stock, and material movers, hand	779	843	64	8%	\$11.26
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	664	725	61	9%	\$29.30
31-1012	Nursing aides, orderlies, and attendants	471	529	58	12%	\$14.59
35-3021	Combined food preparation and serving workers, including fast food	1,075	1,131	56	5%	\$9.02
49-9042	Maintenance and repair workers, general	542	598	56	10%	\$18.28
13-2021	Appraisers and assessors of real estate	232	287	55	24%	\$9.44

### Fastest Growing Occupations 2009-2015



SOC Code	Description	2009 Jobs	2015 Jobs	New Jobs	Growth %	Median Hourly Earnings
41-2031	Retail salespersons	2,836	3,288	452	16%	\$10.55
41-9022	Real estate sales agents	1,106	1,442	336	30%	\$8.36
41-9021	Real estate brokers	1,088	1,420	332	31%	\$8.30
37-2012	Maids and housekeeping cleaners	1,556	1,824	268	17%	\$9.13
29-1111	Registered nurses	1,342	1,550	208	15%	\$50.07
39-9011	Child care workers	1,412	1,603	191	14%	\$8.97

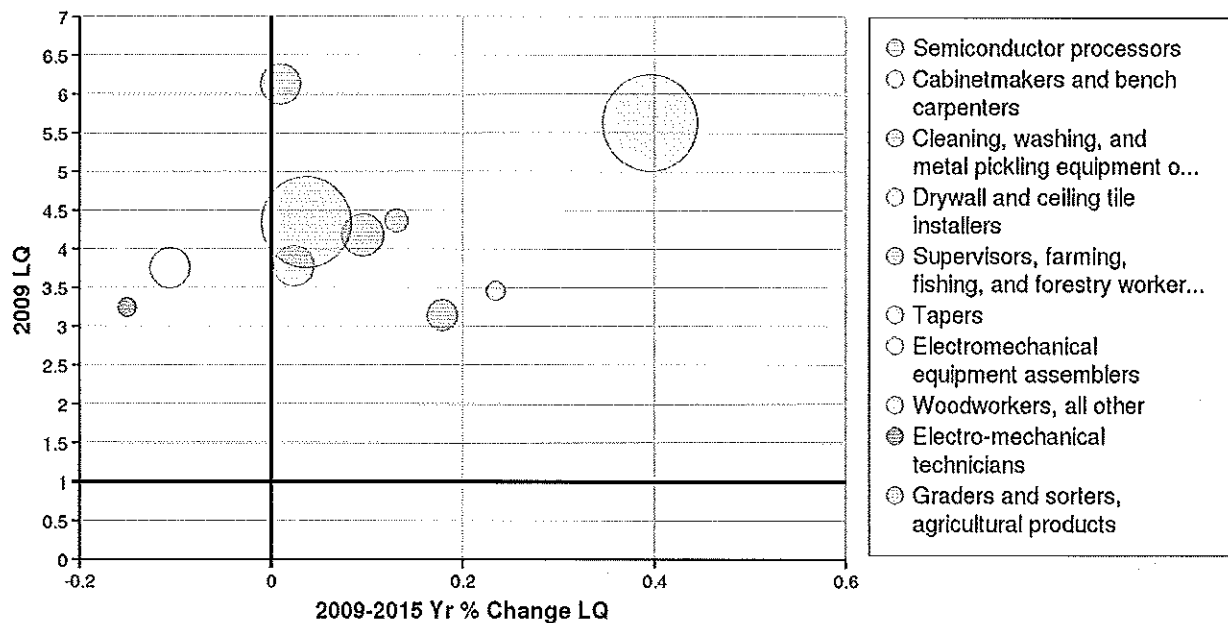
51-7011	Cabinetmakers and bench carpenters	304	477	173	57%	\$14.09
43-5081	Stock clerks and order fillers	908	1,062	154	17%	\$10.48
43-9061	Office clerks, general	1,040	1,190	150	14%	\$13.52
53-3032	Truck drivers, heavy and tractor-trailer	892	1,039	147	16%	\$18.18
47-2061	Construction laborers	744	889	145	19%	\$19.15
39-9021	Personal and home care aides	521	660	139	27%	\$9.89
41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products	550	685	135	25%	\$41.68
41-1011	First-line supervisors/managers of retail sales workers	1,254	1,386	132	11%	\$16.82
47-2031	Carpenters	840	971	131	16%	\$27.00
37-3011	Landscaping and groundskeeping workers	792	918	126	16%	\$11.49
43-6011	Executive secretaries and administrative assistants	843	962	119	14%	\$21.30
11-9199	Managers, all other	911	1,023	112	12%	\$24.69
41-2011	Cashiers, except gaming	1,743	1,855	112	6%	\$10.57
43-4051	Customer service representatives	583	694	111	19%	\$17.65
43-3031	Bookkeeping, accounting, and auditing clerks	916	1,023	107	12%	\$17.55
47-2111	Electricians	287	389	102	36%	\$25.70
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	664	751	87	13%	\$29.30
43-1011	First-line supervisors/managers of office and administrative support workers	687	773	86	13%	\$22.90
53-7062	Laborers and freight, stock, and material movers, hand	779	862	83	11%	\$11.26
51-2092	Team assemblers	416	499	83	20%	\$11.59
49-9042	Maintenance and repair workers, general	542	621	79	15%	\$18.28
47-1011	First-line supervisors/managers of construction trades and extraction workers	445	522	77	17%	\$32.61
31-1012	Nursing aides, orderlies, and attendants	471	547	76	16%	\$14.59
31-9092	Medical assistants	451	524	73	16%	\$16.45

Many of the fastest growing occupations also show up in the largest or highest paying occupations lists. For example, registered nurses are one of the fastest growing occupations as well as largest and highest paying occupations. As Gavilan College considers areas for program development and/or curriculum revision, occupations that appear in more than one list should be a higher priority for consideration.

#### Occupational Highlights:

- 63% of the fastest growing occupations provide a decent wage for workers.
- Average 5 year growth rate for the fastest growing occupations is 19%.
- The 30 fastest growing occupations are projected to add 4,526 new jobs in the next 5 years.

## Top Occupation Location Quotients 2009-2015



SOC Code	Description	2009 Jobs	2015 Jobs	% Change	2009 LQ	2015 LQ	% Change LQ	Median Hourly Earnings
51-9141	Semiconductor processors	105	95	-10%	6.13	6.19	1%	\$16.99
51-7011	Cabinetmakers and bench carpenters	304	477	57%	5.64	7.87	40%	\$14.09
51-9192	Cleaning, washing, and metal pickling equipment operators and tenders	39	44	13%	4.38	4.95	13%	\$11.99
47-2081	Drywall and ceiling tile installers	284	347	22%	4.35	4.51	4%	\$21.53
45-1099	Supervisors, farming, fishing, forestry workers	109	125	15%	4.19	4.59	10%	\$14.55
47-2082	Tapers	101	121	20%	3.79	3.88	2%	\$24.88
51-2023	Electromechanical equipment assemblers	101	85	-16%	3.76	3.36	-11%	\$15.10
51-7099	Woodworkers, all other	25	32	28%	3.46	4.27	23%	\$10.98
17-3024	Electro-mechanical technicians	27	23	-15%	3.25	2.76	-15%	\$26.18
45-2041	Graders and sorters, agricultural products	65	81	25%	3.15	3.71	18%	\$8.86
45-4011	Forest and conservation workers	18	25	39%	3.06	3.91	28%	\$9.80
51-4012	Numerical tool and process control programmers	22	21	-5%	2.97	3.13	5%	\$24.19
51-3093	Food cooking machine operators and tenders	52	64	23%	2.80	3.25	16%	\$12.47
51-9196	Paper goods machine setters, operators, and tenders	121	116	-4%	2.73	3.03	11%	\$17.61
49-3092	Recreational vehicle service technicians	18	21	17%	2.69	2.80	4%	\$17.79
47-2161	Plasterers and stucco masons	55	64	16%	2.63	2.62	0%	\$21.37
39-2011	Animal trainers	127	142	12%	2.58	2.87	11%	\$15.45
47-2171	Reinforcing iron and rebar workers	31	32	3%	2.55	2.25	-12%	\$22.25
51-7042	Woodworking machine setters, operators, and tenders, except sawing	85	117	38%	2.43	3.11	28%	\$13.18
17-3012	Electrical and electronics drafters	41	40	-2%	2.41	2.20	-9%	\$28.33
51-9012	Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders	47	61	30%	2.40	2.91	21%	\$17.08
51-9199	Production workers, all other	266	324	22%	2.36	2.77	17%	\$12.67
51-9111	Packaging and filling machine operators and tenders	359	421	17%	2.36	2.73	16%	\$9.68



41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products	550	685	25%	2.30	2.61	13%	\$41.68
51-7032	Patternmakers, wood	<10	<10	--	--	--	--	--
13-1021	Purchasing agents and buyers, farm products	18	21	17%	2.16	2.43	13%	\$44.73
37-3013	Tree trimmers and pruners	118	138	17%	2.16	1.92	-11%	\$12.38
47-2051	Cement masons and concrete finishers	184	225	22%	2.16	2.27	5%	\$21.53
43-5111	Weighers, measurers, checkers, and samplers, recordkeeping	70	68	-3%	2.15	2.18	1%	\$10.82
43-6013	Medical secretaries	557	630	13%	2.13	2.02	-5%	\$16.01

Location quotients provide information on local occupations based on their degree of concentration (importance) in the identified study area, and whether or not the concentration is projected to grow. A location quotient greater than 1 implies that the occupation employs more people per capita than the statewide average.

#### Highlights:

- Cabinetmakers are an example of a highly competitive occupation, with a location quotient of 7.87, high wages, and a large number of new jobs projected in the next five years.
- Forest and conservation workers are not considered to be a competitive occupation. Even though the occupational concentration is higher than the average, wages are not decent and the five-year growth rate is low.

## Electricians and Electrical Workers

The following section provides information on electrician and electrical occupations within the Gavilan College service area.

### Occupations that require training in electricity/electrical

SOC Code	Description
49-2092	Electric motor, power tool, and related repairers
17-3023	Electrical and electronic engineering technicians
51-2022	Electrical and electronic equipment assemblers
17-3012	Electrical and electronics drafters
49-2093	Electrical and electronics installers and repairers, transportation equipment
49-2094	Electrical and electronics repairers, commercial and industrial equipment
49-2095	Electrical and electronics repairers, powerhouse, substation, and relay
17-2071	Electrical engineers
49-9051	Electrical power-line installers and repairers
47-2111	Electricians
47-3013	Helpers, electricians

### Industry Projections for Electrical Workers

As a whole, the industries in which electrical workers may be employed are declining within the Gavilan College service area. However, a few industries such as electrical contractors (residential and commercial) are projected to experience growth.

#### Industry Projections for Electrical Workers 2009-2012

NAICS Code	Description	Change
238211	Residential electrical contractors	63
334515	Electricity and signal testing instruments	-29
334511	Search, detection, and navigation instruments	-12
334413	Semiconductors and related device mfg.	-10
238212	Nonresidential electrical contractors	9
334210	Telephone apparatus manufacturing	-8
335311	Electric power and specialty transformer mfg.	-7
334310	Audio and video equipment manufacturing	-6
334418	Printed circuit assembly manufacturing	-3
334510	Electromedical and electrotherapeutic apparatus manufacturing	3

#### Industry Projections for Electrical Workers 2009-2013

NAICS Code	Description	Change
238211	Residential electrical contractors	80
334515	Electricity and signal testing instruments	-35
334511	Search, detection, and navigation instruments	-15
334413	Semiconductors and related device mfg.	-12
238212	Nonresidential electrical contractors	12
334210	Telephone apparatus manufacturing	-9
335311	Electric power and specialty transformer mfg.	-9
334310	Audio and video equipment manufacturing	-7
334510	Electromedical and electrotherapeutic apparatus manufacturing	5
334418	Printed circuit assembly manufacturing	-3

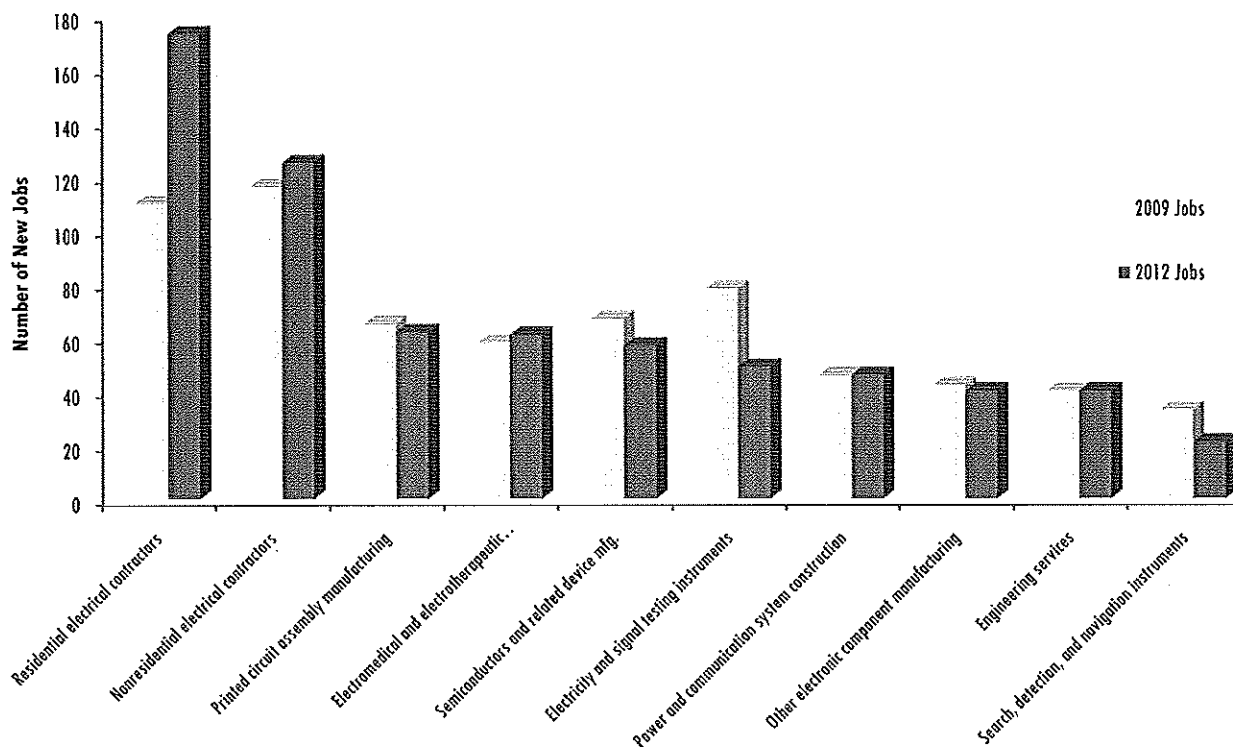
## Industry Projections for Electrical Workers 2009-2015

NAICS Code	Description	Change
238211	Residential electrical contractors	93
334515	Electricity and signal testing instruments	-41
238212	Nonresidential electrical contractors	17
334511	Search, detection, and navigation instruments	-17
334413	Semiconductors and related device mfg.	-14
334210	Telephone apparatus manufacturing	-11
335311	Electric power and specialty transformer mfg.	-10
334510	Electromedical and electrotherapeutic apparatus manufacturing	9
334310	Audio and video equipment manufacturing	-8
334220	Broadcast and wireless communications equip.	4

## Industrial Makeup for Electrical Workers

The following data details which industries electrical workers are most likely to be employed within the Gavilan College service area. Most workers are employed as electrical contractors and in manufacturing companies.

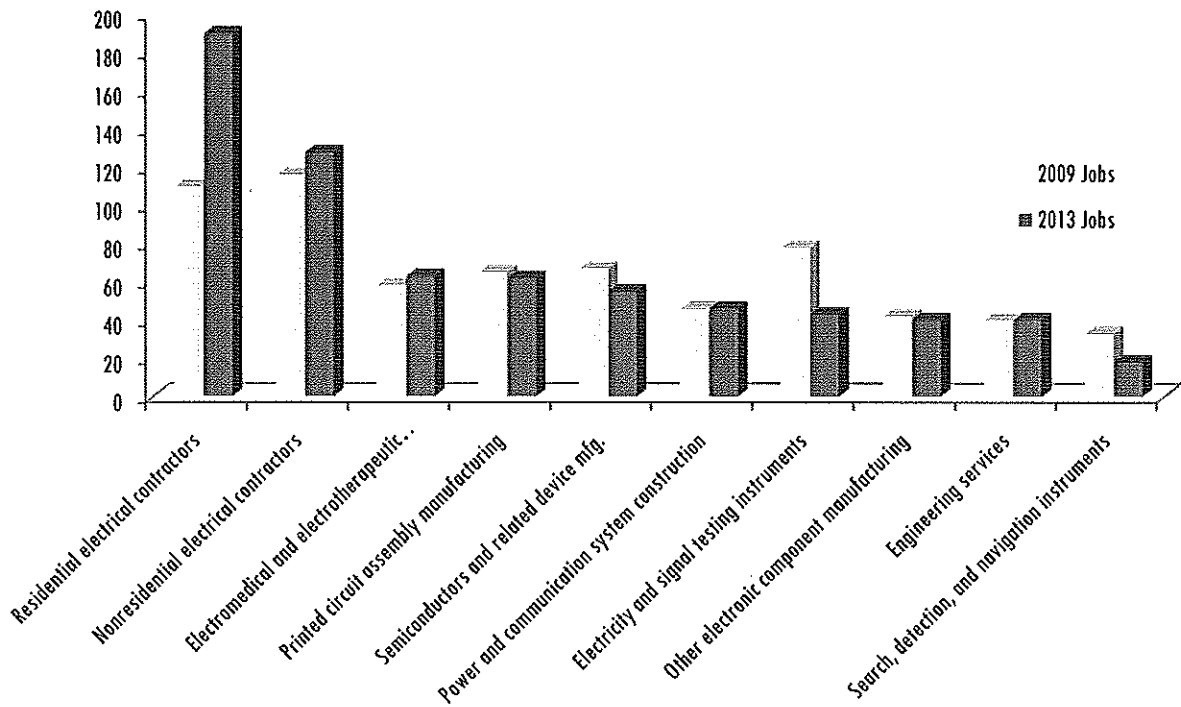
## Industrial Makeup, Electrical Workers 2009-2012



NAICS Code	Description	2009 Jobs	2012 Jobs	Change	% Change
238212	Nonresidential electrical contractors	116	125	9	8%
238211	Residential electrical contractors	110	173	63	57%
334515	Electricity and signal testing instruments	78	49	-29	-37%
334413	Semiconductors and related device mfg.	67	57	-10	-15%
334418	Printed circuit assembly manufacturing	65	62	-3	-5%
334510	Electromedical and electrotherapeutic apparatus manufacturing	58	61	3	5%
237130	Power and communication system construction	46	46	0	0%

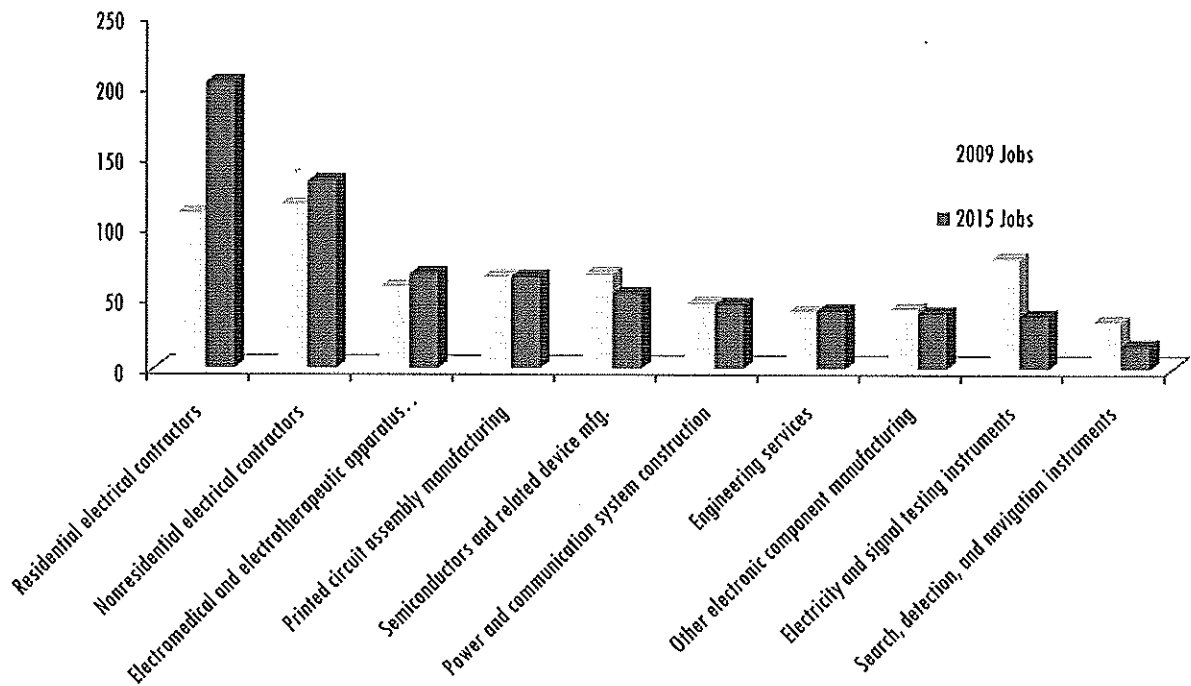
334419	Other electronic component manufacturing	42	40	-2	-5%
541330	Engineering services	40	40	0	0%
334511	Search, detection, and navigation instruments	33	21	-12	-36%
334290	Other communications equipment manufacturing	16	16	0	0%
334220	Broadcast and wireless communications equip.	15	17	2	13%
335311	Electric power and specialty transformer mfg.	14	<10	--	--
930000	Local government	14	16	2	14%
334210	Telephone apparatus manufacturing	13	<10	--	--
311421	Fruit and vegetable canning	<10	<10	--	--
335314	Relay and industrial control manufacturing	<10	<10	--	--
236118	Residential remodelers	<10	10	--	--
236115	New single-family general contractors	<10	<10	--	--
334310	Audio and video equipment manufacturing	<10	<10	--	--

### Industrial Makeup, Electrical Workers 2009-2013



NAICS Code	Description	2009 Jobs	2013 Jobs	Change	% Change
238212	Nonresidential electrical contractors	116	128	12	10%
238211	Residential electrical contractors	110	190	80	73%
334515	Electricity and signal testing instruments	78	43	-35	-45%
334413	Semiconductors and related device mfg.	67	55	-12	-18%
334418	Printed circuit assembly manufacturing	65	62	-3	-5%
334510	Electromedical and electrotherapeutic apparatus manufacturing	58	63	5	9%
237130	Power and communication system construction	46	46	0	0%
334419	Other electronic component manufacturing	42	40	-2	-5%
541330	Engineering services	40	40	0	0%
334511	Search, detection, and navigation instruments	33	18	-15	-45%
334290	Other communications equipment manufacturing	16	16	0	0%
334220	Broadcast and wireless communications equip.	15	17	2	13%

## Industrial Makeup, Electrical Workers, 2009-2015



NAICS Code	Description	2009 Jobs	2015 Jobs	Change	% Change
238212	Nonresidential electrical contractors	116	133	17	15%
238211	Residential electrical contractors	110	203	93	85%
334515	Electricity and signal testing instruments	78	37	-41	-53%
334413	Semiconductors and related device mfg.	67	53	-14	-21%
334418	Printed circuit assembly manufacturing	65	65	0	0%
334510	Electromedical & electrotherapeutic apparatus manufacturing	58	67	9	16%
237130	Power and communication system construction	46	45	-1	-2%
334419	Other electronic component manufacturing	42	39	-3	-7%
541330	Engineering services	40	41	1	3%
334511	Search, detection, and navigation instruments	33	16	-17	-52%
334290	Other communications equipment manufacturing	16	17	1	6%
334220	Broadcast and wireless communications equip.	15	19	4	27%
335311	Electric power and specialty transformer mfg.	14	<10	--	--
930000	Local government	14	17	3	21%

Most jobs for electrical workers are in the construction sector, specifically residential and commercial contractors. There are also a substantial amount of jobs in the manufacturing sector. Unfortunately, several of the manufacturing industries are projected to decrease in the next five years (NAICS 334515, 334413, 334511).

## Knowledge, Skill, and Ability Requirements for Electrical Occupations

This section of the report contains information on the top knowledge, skill, and ability requirements for specific electrical occupations.

### Electricians (SOC 47-2111)

Top Knowledge	Top Skills	Top Abilities
Mechanical Mathematics Building and Construction Design Education and Training Physics Engineering and Technology Administration and Management Telecommunications Computers and Electronics	Critical Thinking Troubleshooting Complex Problem Solving Reading Comprehension Operation Monitoring Time Management Coordination Speaking Monitoring Judgment and Decision Making	Oral Comprehension Extent Flexibility Near Vision Visual Color Discrimination Oral Expression Deductive Reasoning Visualization Arm-Hand Steadiness Inductive Reasoning Written Comprehension

### Electrical engineers (SOC 17-2071)

Top Knowledge	Top Skills	Top Abilities
Engineering and Technology Mathematics Computers and Electronics Design Physics English Language Production and Processing Mechanical Administration and Management Telecommunications	Troubleshooting Reading Comprehension Equipment Selection Complex Problem Solving Active Learning Critical Thinking Technology Design Systems Analysis Time Management Mathematics	Oral Comprehension Oral Expression Written Comprehension Deductive Reasoning Information Ordering Written Expression Mathematical Reasoning Visualization Near Vision Originality

### Electronics engineers, except computer (SOC 17-2072)

Top Knowledge	Top Skills	Top Abilities
Engineering and Technology Computers and Electronics Design Mathematics Physics Mechanical Production and Processing English Language Education and Training Telecommunications	Reading Comprehension Troubleshooting Active Learning Mathematics Equipment Selection Coordination Complex Problem Solving Active Listening Operations Analysis Critical Thinking	Oral Expression Written Comprehension Oral Comprehension Deductive Reasoning Written Expression Information Ordering Visualization Problem Sensitivity Inductive Reasoning Finger Dexterity

### First-line supervisors/managers of construction trades and extraction workers (SOC 47-1011)

Top Knowledge	Top Skills	Top Abilities
Building and Construction Mechanical Mathematics Administration and Management Engineering and Technology Customer and Personal Service Design Public Safety and Security Production and Processing Personnel and Human Resources	Coordination Time Management Critical Thinking Speaking Mathematics Equipment Selection Active Learning Instructing Monitoring Active Listening	Oral Expression Oral Comprehension Written Comprehension Deductive Reasoning Written Expression Problem Sensitivity Visualization Near Vision Speech Clarity Information Ordering

## Electrical and electronic equipment assemblers (SOC 51-2022)

Top Knowledge	Top Skills	Top Abilities
Administration and Management Mechanical Production and Processing English Language Sales and Marketing Mathematics Personnel and Human Resources Computers and Electronics Education and Training Physics	Equipment Selection Quality Control Analysis Learning Strategies Troubleshooting Coordination Time Management Instructing Systems Evaluation Installation Active Learning	Visualization Oral Comprehension Arm-Hand Steadiness Finger Dexterity Near Vision Manual Dexterity Information Ordering Control Precision Deductive Reasoning Problem Sensitivity

## Team assemblers (SOC 51-2092)

Top Knowledge	Top Skills	Top Abilities
Production and Processing Mechanical Education and Training Mathematics English Language Customer and Personal Service Public Safety and Security Engineering and Technology Administration and Management Design	Learning Strategies Quality Control Analysis Instructing Equipment Selection Operation Monitoring Active Learning Coordination Monitoring Installation Equipment Maintenance	Oral Comprehension Oral Expression Multilimb Coordination Near Vision Control Precision Selective Attention Information Ordering Finger Dexterity Speech Clarity Manual Dexterity

Within the six identified electrical occupations, there are some common knowledge, skill, and ability requirements. The most common requirements amongst the occupations are:

### Knowledge

- Knowledge of mathematics design, engineering and technology, administration and management, and production and processing (5/6 occupations require these)
- All occupations require knowledge of mechanics.

### Skills

- 5 out of 6 occupations require equipment selection skills.
- Critical thinking, troubleshooting, time management, and coordination are also important skills (4/6 occupations require these skills).

### Abilities

- All occupations require oral comprehension.
- 5 out of 6 occupations require near vision, deductive reasoning, visualization, and information ordering.

## Solar Industry Potential, Gavilan College Service Area

To determine the potential for solar occupations within the Gavilan College service area, an analysis of existing occupations that are included within the solar industry clusters was conducted. The following table includes occupations within the solar industry.

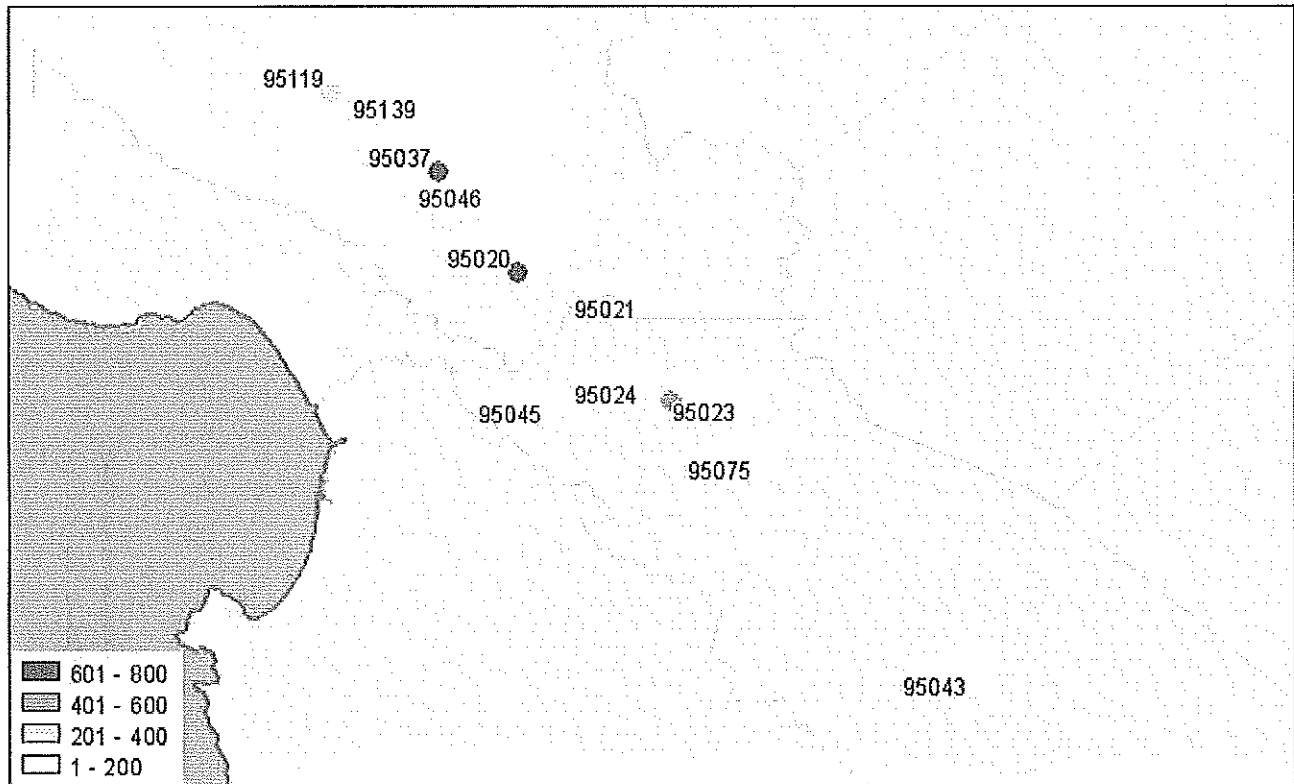
Selected Occupations	Education Level
Construction managers (SOC 11-9021)	Bachelor's degree
Electrical engineers (SOC 17-2071)	Bachelor's degree
Electrical and electronic engineering technicians (SOC 17-3023)	Associate's degree
Construction laborers (SOC 47-2061)	Moderate-term on-the-job training
Operating engineers and other construction equipment operators (SOC 47-2073)	Moderate-term on-the-job training
Electricians (SOC 47-2111)	Long-term on-the-job training
Helpers, electricians (SOC 47-3013)	Short-term on-the-job training
Helpers, construction trades, all other (SOC 47-3019)	Short-term on-the-job training
Electrical & electronics repairers (SOC 49-2094)	Postsecondary vocational award
Helpers—Installation, maintenance, and repair workers (SOC 49-9098)	Short-term on-the-job training
Installation, maintenance, and repair workers, all other (SOC 49-9099)	Moderate-term on-the-job training
Electrical and electronic equipment assemblers (SOC 51-2022)	Short-term on-the-job training
Electromechanical equipment assemblers (SOC 51-2023)	Short-term on-the-job training
Structural metal fabricators and fitters (SOC 51-2041)	Moderate-term on-the-job training
Welders, cutters, solderers, and brazers (SOC 51-4121)	Long-term on-the-job training

Occupation Summary	
2009 Occupational Jobs	2,326
2012 Occupational Jobs	2,471
Total Change	145
Total % Change	6.23%
Median Hourly Earnings	\$24.26
2009 Location Quotient	1.10
2012 Location Quotient	1.08

It is important to note that the occupations included in this section of the report are to determine the potential for solar jobs, not to represent the actual number of solar jobs. In order to determine the actual number of solar jobs, primary research would be necessary. Potential solar jobs were identified using existing Standard Occupation Codes (SOC) to determine existing labor market information.

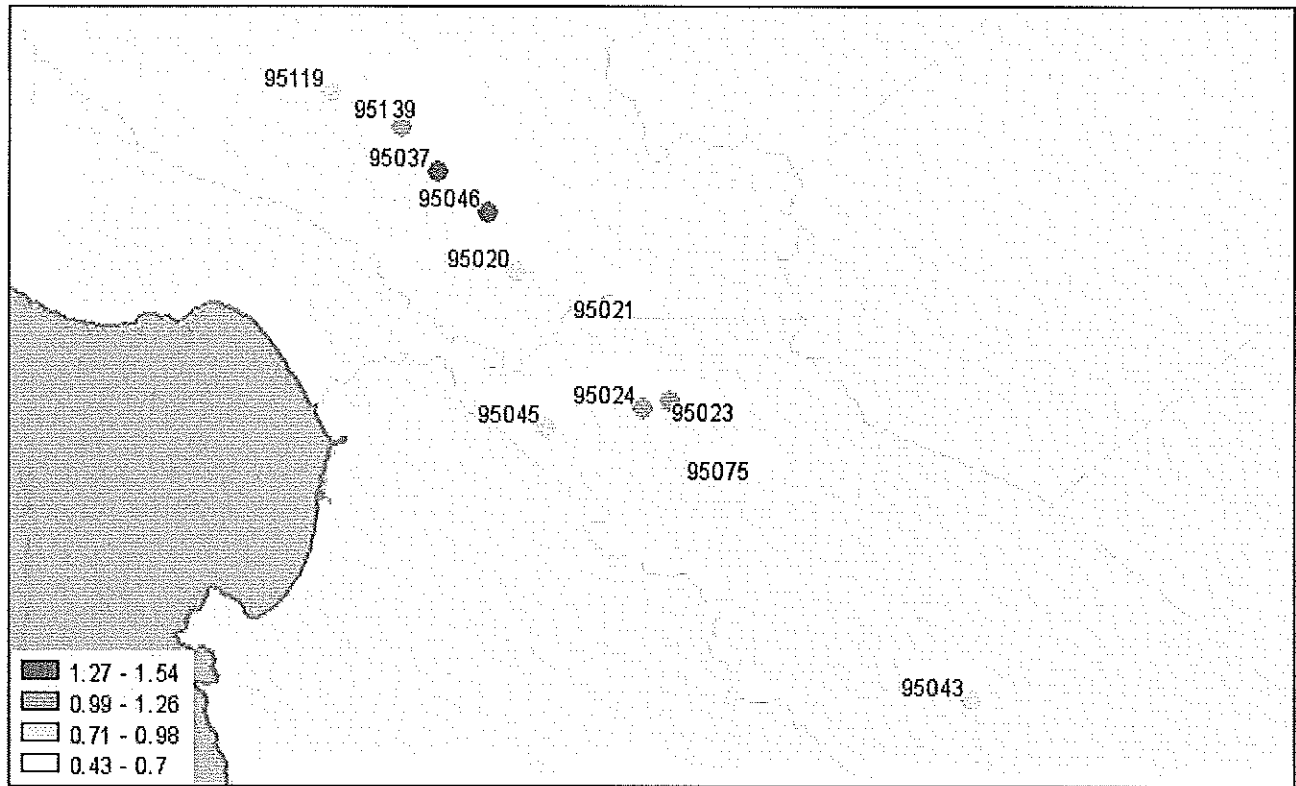


**Solar Occupation Distribution**  
**Occupation Distribution, Solar Occupations 2009**



ZIP Code	2009 Jobs
95037 (in Santa Clara county, CA)	788
95020 (in Santa Clara county, CA)	609
95023 (in San Benito county, CA)	487
95119 (in Santa Clara county, CA)	243
95046 (in Santa Clara county, CA)	88
95045 (in San Benito county, CA)	51
95024 (in San Benito county, CA)	38
95043 (in San Benito county, CA)	<10
95139 (in Santa Clara county, CA)	<10
95021 (in Santa Clara county, CA)	<10
95013 (in Santa Clara county, CA)	<10
95075 (in San Benito county, CA)	<10

## Occupation Concentration, Solar Occupations



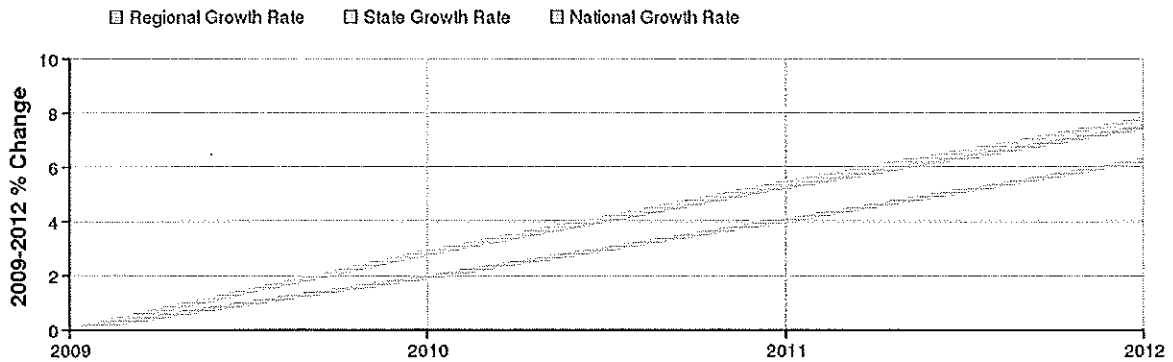
ZIP Code	2009 Location Quotient
95037 (in Santa Clara county, CA)	1.51
95046 (in Santa Clara county, CA)	1.46
95013 (in Santa Clara county, CA)	1.17
95024 (in San Benito county, CA)	1.16
95023 (in San Benito county, CA)	1.04
95045 (in San Benito county, CA)	0.90
95020 (in Santa Clara county, CA)	0.89
95119 (in Santa Clara county, CA)	0.74
95043 (in San Benito county, CA)	0.74
95021 (in Santa Clara county, CA)	0.47
95075 (in San Benito county, CA)	0.43
95139 (in Santa Clara county, CA)	0.43

Source: EMSI Complete Employment - 1st Quarter 2010

Most of the potential solar occupations in the Gavilan College service area are located and concentrated in the southern portion of Santa Clara County. However, once the solar facility in San Benito County is operational, there will be a higher number and concentration of solar occupations in that area.

## Solar Occupation Projections

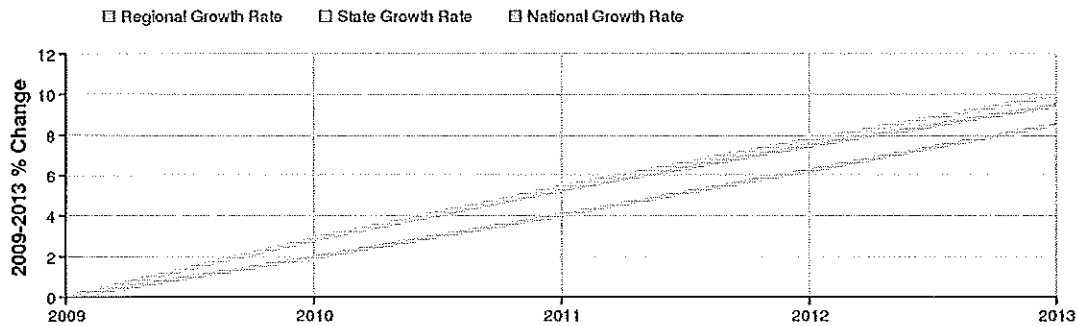
### Occupational Change Summary, Solar Occupations 2009-2012



Region	2009 Jobs	2012 Jobs	Change	% Change	Median Hourly Earnings
Gavilan College Service Area Total	2,326	2,471	145	6%	\$24.26
State Total	457,026	492,537	35,511	8%	\$23.38
National Total	4,553,890	4,894,021	340,131	7%	\$19.18

The potential for solar occupations within the Gavilan College service area are projected to grow at a rate consistent with state and national projections. An interesting finding is that occupations within the Gavilan service area earn wages slightly higher than the statewide average. Current solar facility construction in San Benito County will further drive the growth within these occupations, and are not included in these projections.

### Occupational Change Summary, Solar Occupations 2009-2013



Region	2009 Jobs	2013 Jobs	Change	% Change	Median Hourly Earnings
Gavilan College Service Area Total	2,326	2,524	198	9%	\$24.26
State Total	457,026	502,488	45,462	10%	\$23.38
National Total	4,553,890	4,985,139	431,249	9%	\$19.18

### Top Industries for Solar Occupations 2009-2012

NAICS Code	Name	2009 Jobs	2012 Jobs	Change	% Change
236118	Residential remodelers	154	195	41	27%
236115	New single-family general contractors	139	146	7	5%
238212	Nonresidential electrical contractors	131	141	10	8%
238211	Residential electrical contractors	127	197	70	55%
238111	Residential poured foundation contractors	109	129	20	18%
334515	Electricity and signal testing instruments	100	63	-37	-37%
237130	Power and communication system construction	89	83	-6	-7%

### Top Industries for Solar Occupations 2009-2013

NAICS Code	Name	2009 Jobs	2013 Jobs	Change	% Change
236118	Residential remodelers	154	205	51	33%
236115	New single-family general contractors	139	149	10	7%
238212	Nonresidential electrical contractors	131	144	13	10%
238211	Residential electrical contractors	127	216	89	70%
238111	Residential poured foundation contractors	109	134	25	23%
334515	Electricity and signal testing instruments	100	55	-45	-45%
237130	Power and communication system construction	89	81	-8	-9%

### Occupational Breakdown, Solar Occupations 2009-2012

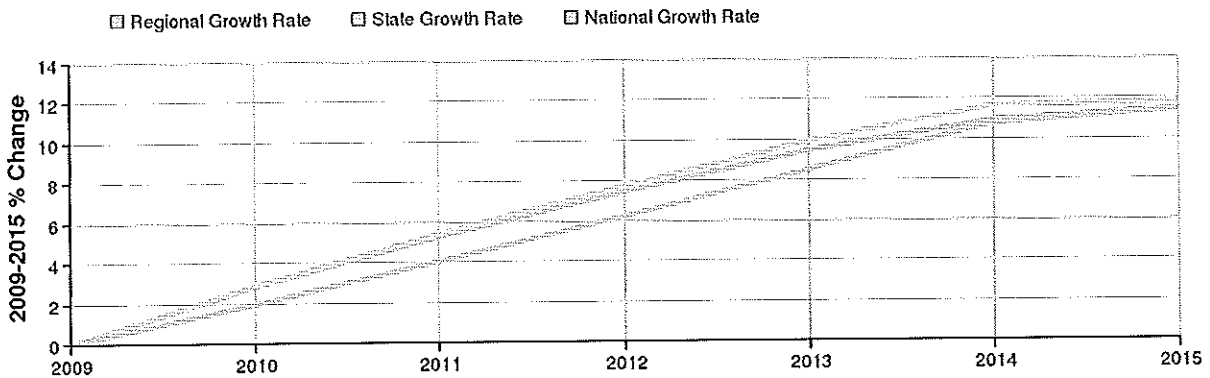
SOC	Description	2009 Jobs	2012 Jobs	Hourly Earnings
11-9021	Construction managers	283	310	\$34.14
17-2071	Electrical engineers	204	184	\$47.98
17-3023	Electrical and electronic engineering technicians	133	120	\$25.50
47-2061	Construction laborers	744	835	\$19.15
47-2073	Operating engineers and other construction equipment operators	65	69	\$27.68
47-2111	Electricians	287	355	\$25.70
47-3013	Helpers, electricians	21	27	\$13.68
49-2094	Electrical and electronics repairers, commercial & industrial equipment	23	22	\$25.68
49-9098	Helpers--Installation, maintenance, and repair workers	64	69	\$13.59
49-9099	Installation, maintenance, and repair workers, all other	86	92	\$21.82
51-2022	Electrical and electronic equipment assemblers	168	146	\$14.87
51-2023	Electromechanical equipment assemblers	101	86	\$15.10
51-2041	Structural metal fabricators and fitters	23	26	\$13.82
51-4121	Welders, cutters, solderers, and brazers	118	124	\$17.71
	<b>Total</b>	<b>2,326</b>	<b>2,471</b>	<b>\$24.26</b>

### Occupational Breakdown, Solar Occupations 2009-2013

SOC	Description	2009 Jobs	2013 Jobs	Median Hourly Earnings
11-9021	Construction managers	283	317	\$34.14
17-2071	Electrical engineers	204	181	\$47.98
17-3023	Electrical and electronic engineering technicians	133	118	\$25.50
47-2061	Construction laborers	744	861	\$19.15
47-2073	Operating engineers and other construction equipment operators	65	70	\$27.68
47-2111	Electricians	287	373	\$25.70
47-3013	Helpers, electricians	21	29	\$13.68
49-2094	Electrical and electronics repairers, commercial & industrial equipment	23	22	\$25.68
49-9098	Helpers--Installation, maintenance, and repair workers	64	70	\$13.59
49-9099	Installation, maintenance, and repair workers, all other	86	94	\$21.82
51-2022	Electrical and electronic equipment assemblers	168	143	\$14.87
51-2023	Electromechanical equipment assemblers	101	84	\$15.10
51-2041	Structural metal fabricators and fitters	23	27	\$13.82
51-4121	Welders, cutters, solderers, and brazers	118	127	\$17.71
	<b>Total</b>	<b>2,326</b>	<b>2,524</b>	<b>\$24.26</b>

Most potential solar occupations are located in construction industries within the Gavilan College service area. This is consistent with solar occupations throughout California, as many employers involved in the housing boom are now working in solar installations.

## Occupational Change Summary, Solar Occupations 2009-2015



Region	2009 Jobs	2015 Jobs	Change	% Change	Median Hourly Earnings
Regional Total	2,326	2,592	266	11%	\$24.26
State Total	457,026	511,033	54,007	12%	\$23.38
National Total	4,553,890	5,076,952	523,062	11%	\$19.18

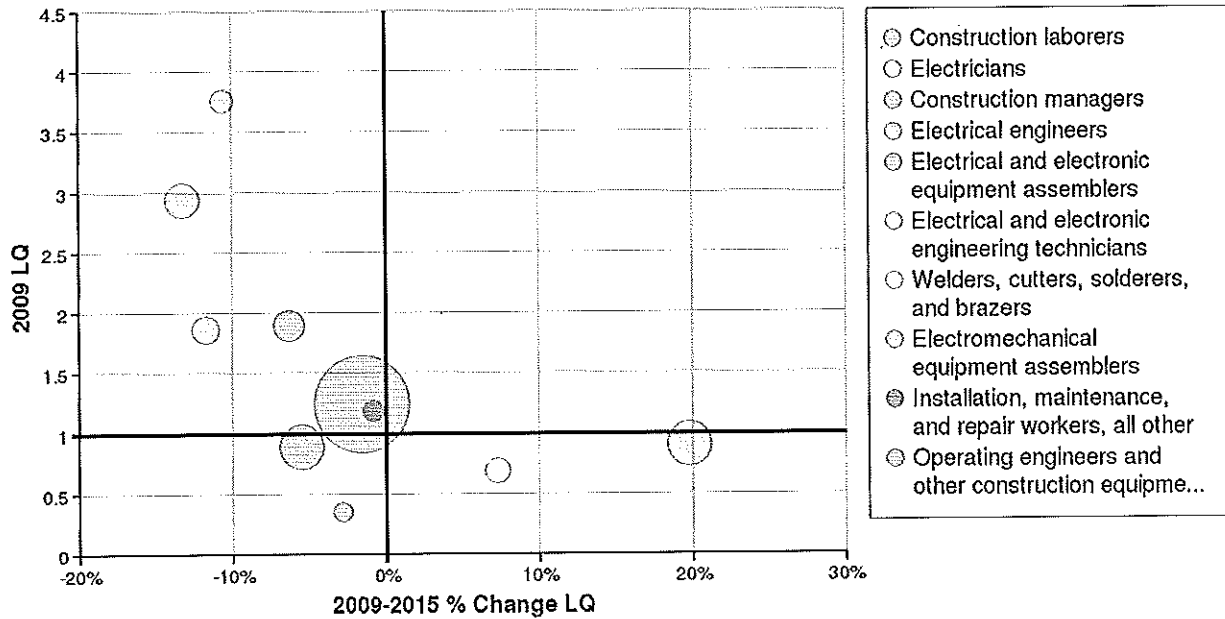
## Top Industries for Solar Occupations 2009-2015

NAICS Code	Name	2009 Jobs	2015 Jobs	Change	% Change
236118	Residential remodelers	154	220	66	43%
236115	New single-family general contractors	139	146	7	5%
238212	Nonresidential electrical contractors	131	150	19	15%
238211	Residential electrical contractors	127	231	104	82%
238111	Residential poured foundation contractors	109	139	30	28%
334515	Electricity and signal testing instruments	100	47	-53	-53%
237130	Power and communication system construction	89	75	-14	-16%

## Occupational Breakdown 2009-2015

SOC Code	Description	2009 Jobs	2015 Jobs	Median Hourly Earnings
11-9021	Construction managers	283	323	\$34.14
17-2071	Electrical engineers	204	183	\$47.98
17-3023	Electrical and electronic engineering technicians	133	119	\$25.50
47-2061	Construction laborers	744	889	\$19.15
47-2073	Operating engineers and other construction equipment operators	65	71	\$27.68
47-2111	Electricians	287	389	\$25.70
47-3013	Helpers, electricians	21	31	\$13.68
47-3019	Helpers, construction trades, all other	<10	<10	--
49-2094	Electrical and electronics repairers, commercial and industrial equipment	23	23	\$25.68
49-9098	Helpers--installation, maintenance, and repair workers	64	72	\$13.59
49-9099	Installation, maintenance, and repair workers, all other	86	97	\$21.82
51-2022	Electrical and electronic equipment assemblers	168	143	\$14.87
51-2023	Electromechanical equipment assemblers	101	85	\$15.10
51-2041	Structural metal fabricators and fitters	23	28	\$13.82
51-4121	Welders, cutters, solderers, and brazers	118	132	\$17.71
	<b>Total</b>	<b>2,326</b>	<b>2,592</b>	<b>\$24.26</b>

## Location Quotient Breakdown 2009-2015



\*Bubble size represents 2009 jobs in each occupation.

SOC Code	Description	2009 Jobs	2009 LQ	2015 LQ
47-2061	Construction laborers	744	1.24	1.22
47-2111	Electricians	287	0.91	1.09
11-9021	Construction managers	283	0.90	0.85
17-2071	Electrical engineers	204	2.94	2.55
51-2022	Electrical and electronic equipment assemblers	168	1.89	1.77
17-3023	Electrical and electronic engineering technicians	133	1.87	1.65
51-4121	Welders, cutters, solderers, and brazers	118	0.69	0.74
51-2023	Electromechanical equipment assemblers	101	3.76	3.36
49-9099	Installation, maintenance, and repair workers, all other	86	1.19	1.18
47-2073	Operating engineers and other construction equipment operators	65	0.35	0.34
49-9098	Helpers--Installation, maintenance, and repair workers	64	0.98	0.99
51-2041	Structural metal fabricators and fitters	23	0.50	0.58
49-2094	Electrical and electronics repairers, commercial and industrial equipment	23	0.67	0.65
47-3013	Helpers, electricians	21	0.46	0.58
47-3019	Helpers, construction trades, all other	<10	--	--
	<b>Total</b>	<b>2,326</b>	<b>1.10</b>	<b>1.08</b>

## Demographic Summary

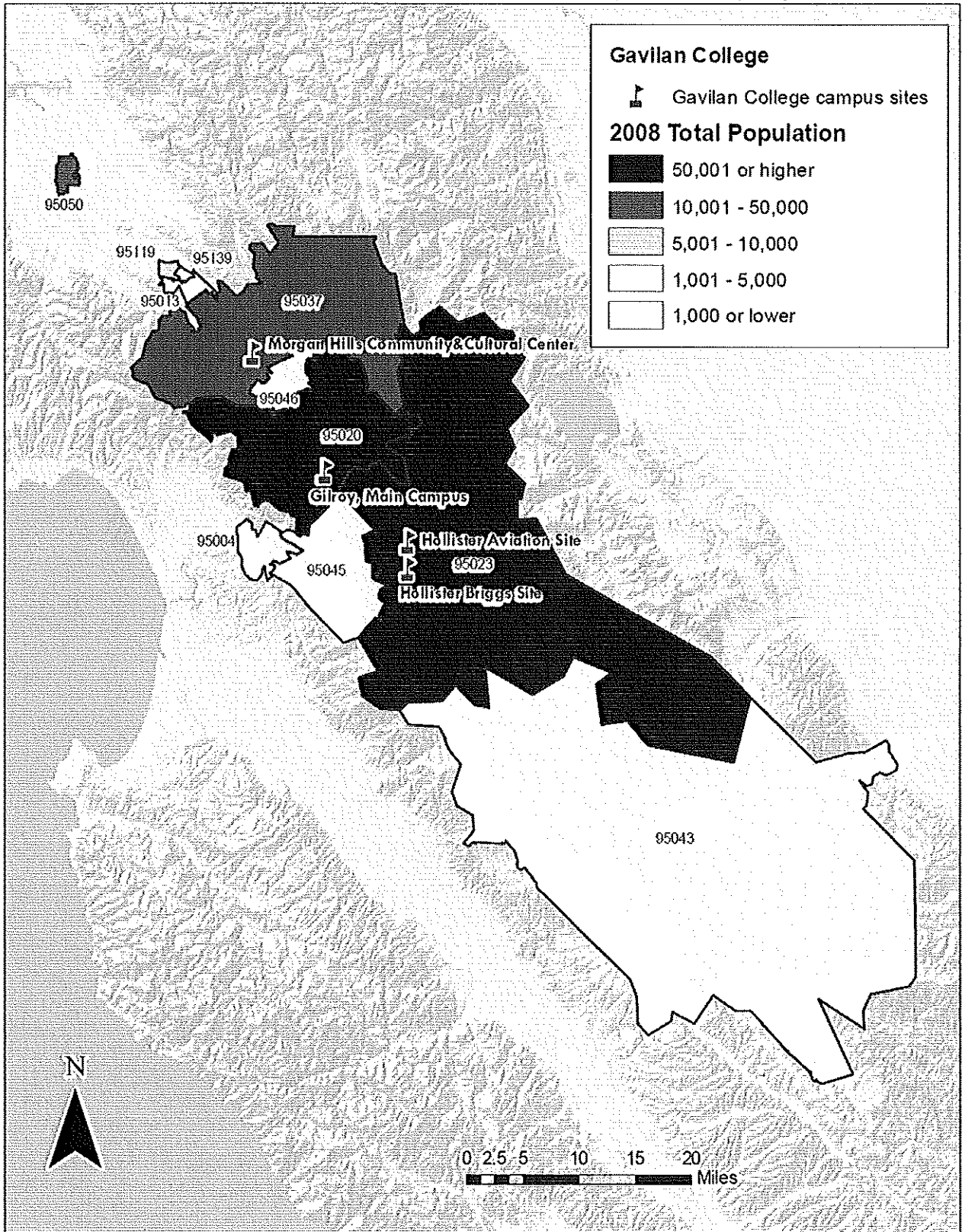
The population in the Gavilan College service area is projected to experience minimal growth in the next five years. Total population in 2009 is 175,733. Within specific age cohorts there are some substantial growth projections. Some of the older population cohorts – 50-59, 65-69, and 70-74 – are expected to increase by more than 20% each in the next five years. Conversely, some of the middle aged cohorts – 35-39, 40-44, and 45-49 – is projected to decrease by 10% or more each in the same timeframe.

Area	2009 Population	2015 Population	Change	% Change
Gavilan College service area	175,733	176,041	308	0%
State	36,979,199	38,785,745	1,806,546	5%
Nation	307,006,550	319,065,627	12,059,077	4%

### Age Breakdown

Age	2009 Population	2015 Population	Change	% Change	2009 % of Cohort
5 to 9 years	15,570	15,605	35	0%	8.86%
10 to 14 years	14,927	14,994	67	0%	8.49%
15 to 19 years	13,839	12,621	-1,218	-9%	7.88%
20 to 24 years	10,599	10,807	208	2%	6.03%
25 to 29 years	11,625	12,366	741	6%	6.62%
30 to 34 years	13,629	13,616	-13	0%	7.76%
35 to 39 years	15,396	12,481	-2,915	-19%	8.76%
40 to 44 years	14,443	12,440	-2,003	-14%	8.22%
45 to 49 years	12,673	11,353	-1,320	-10%	7.21%
50 to 54 years	11,270	12,258	988	9%	6.41%
55 to 59 years	8,276	10,205	1,929	23%	4.71%
60 to 64 years	5,462	6,338	876	16%	3.11%
65 to 69 years	4,080	5,473	1,393	34%	2.32%
70 to 74 years	3,388	4,581	1,193	35%	1.93%
75 to 79 years	2,774	3,308	534	19%	1.58%
80 to 84 years	1,736	1,801	65	4%	0.99%
85 years and over	1,451	1,691	240	17%	0.83%
Under 5 years	14,596	14,104	-492	-3%	8.31%
<b>Total</b>	<b>175,733</b>	<b>176,041</b>	<b>308</b>	<b>0%</b>	<b>100.00%</b>

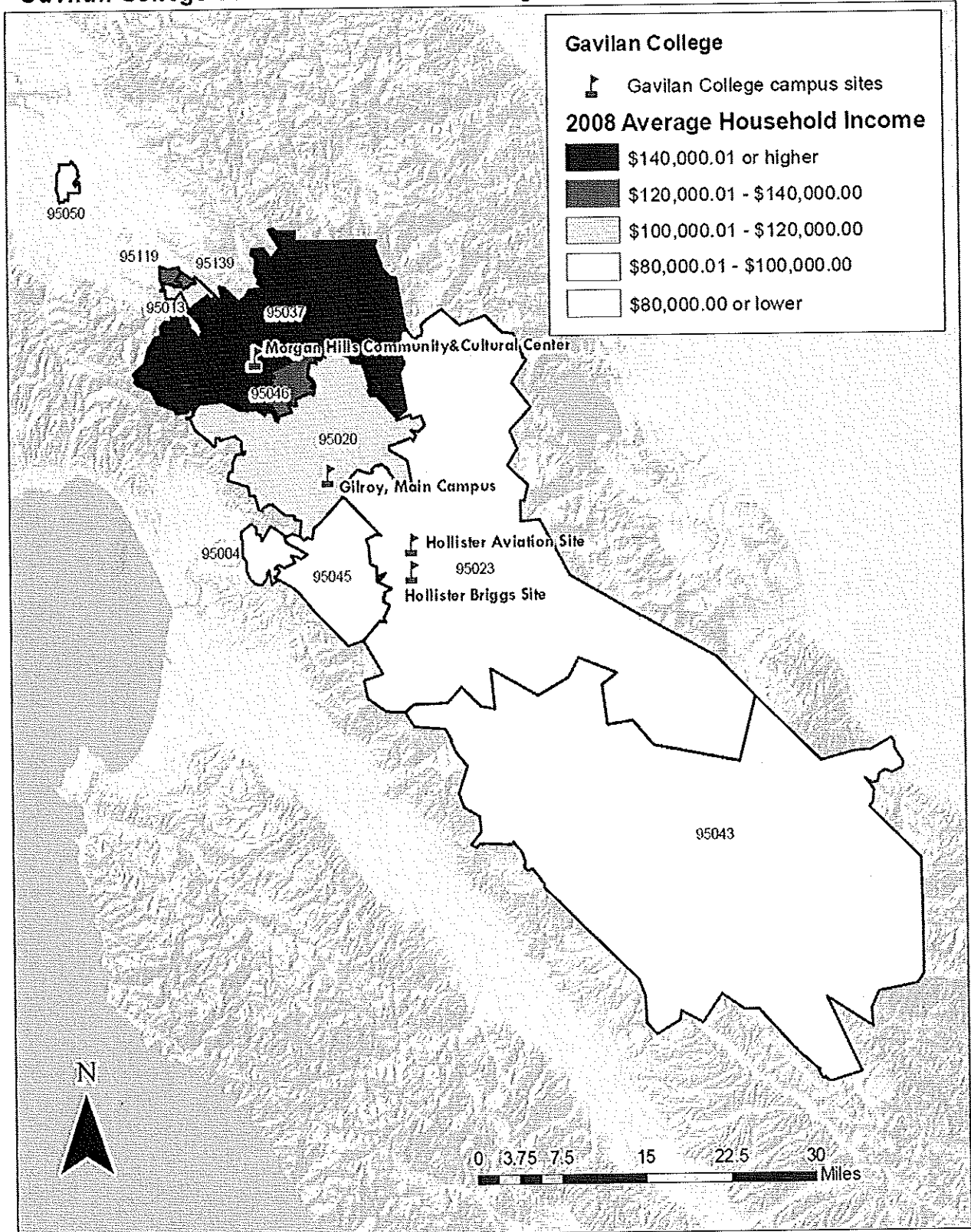
# Gavilan College Service Area: 2008 Total Population by Zip Codes



Created by Center of Excellence, California Community Colleges. Software and data provided by ESRI.



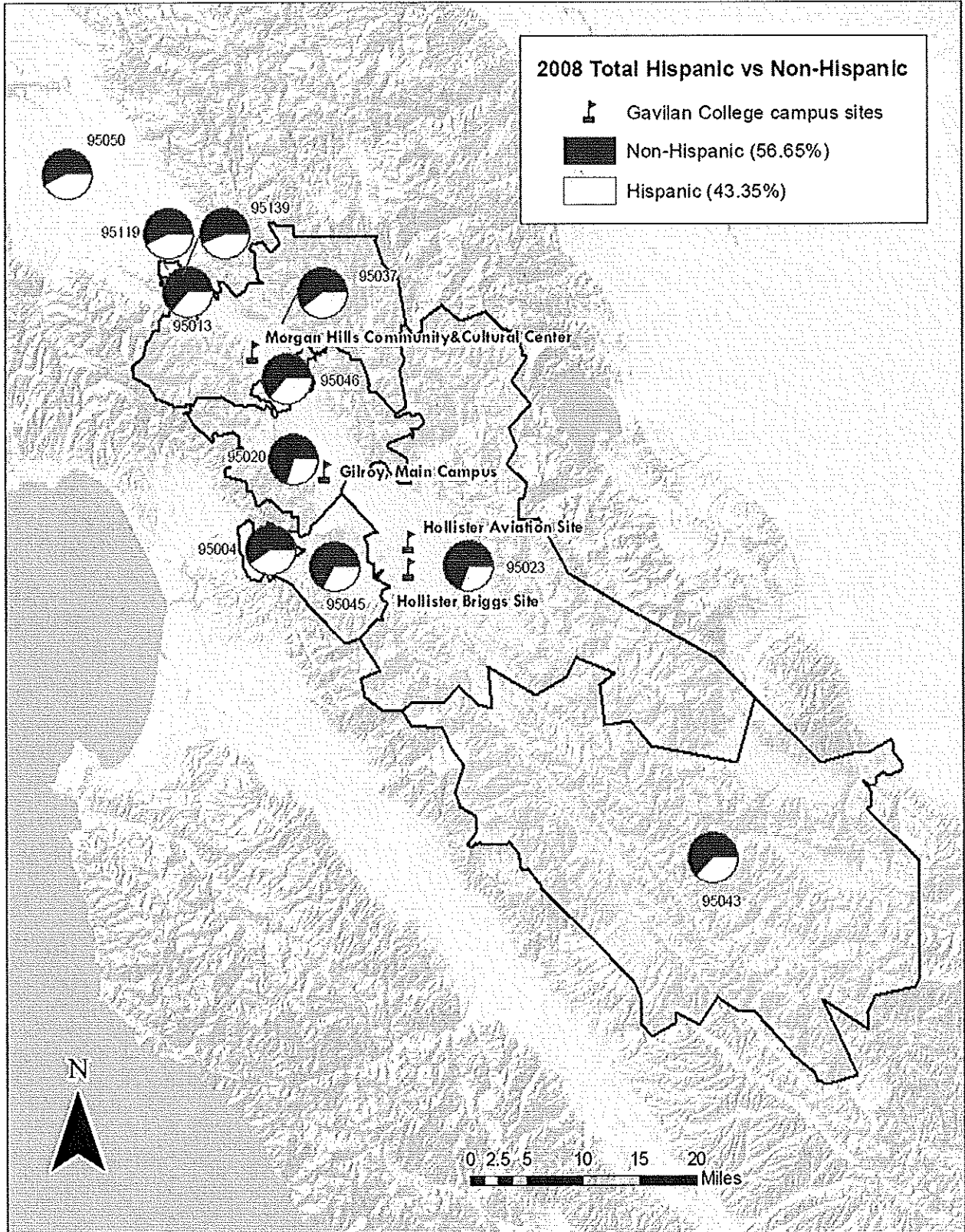
# Gavilan College Service Area: 2008 Average Household Income by Zip Codes



## Race/Ethnicity Breakdown

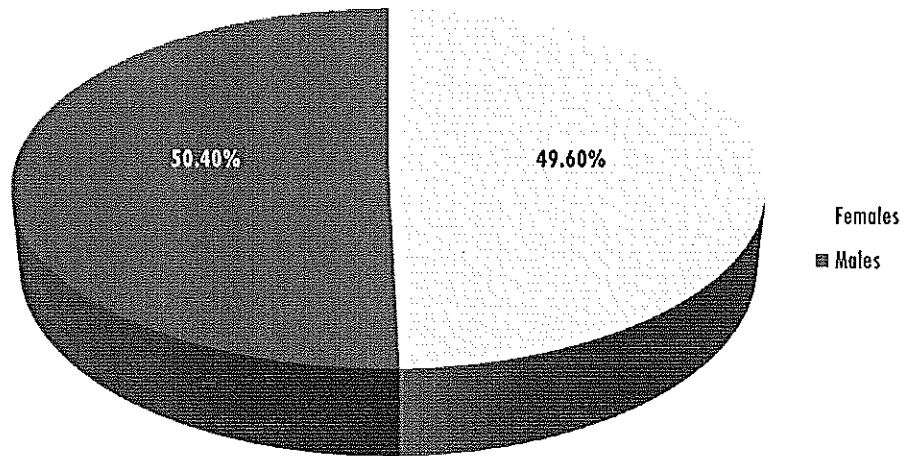
Race/Ethnicity	2009 Population	2015 Population	Change	% Change	2009 % of Cohort
American Indian or Alaska Native	613	593	-20	-3%	0.35%
Asian	12,074	12,939	865	7%	6.87%
Black or African American	2,134	2,086	-48	-2%	1.21%
Native Hawaiian and other Pacific Islander	353	376	23	7%	0.20%
Non-White Hispanic	4,121	4,290	169	4%	2.35%
Two or more races	4,641	4,911	270	6%	2.64%
White, Non-Hispanic	74,921	69,734	-5,187	-7%	42.63%
White Hispanic	76,876	81,113	4,237	6%	43.75%
Total	175,733	176,041	308	0%	100.00%

# Gavilan College Service Area: Hispanic Population vs Non-Hispanic Population by Zip Codes



Created by Center of Excellence, California Community Colleges. Software and data provided by ESRI.

## Gender Breakdown



Gender	2009 Population	2015 Population	Change	% Change	2009 % of Cohort
Females	87,167	86,973	-194	0%	49.60%
Males	88,567	89,068	501	1%	50.40%
Total	175,733	176,041	308	0%	100.00%

## Data Sources and Calculations

### Occupation Data

Organizing regional employment information by occupation provides a workforce-oriented view of the regional economy. EMSI's occupation data are based on EMSI's industry data and regional staffing patterns taken from the Occupational Employment Statistics program (U.S. Bureau of Labor Statistics). Wage information is partially derived from the American Community Survey. The occupation-to-program (SOC-to-CIP) crosswalk is based on one from the U.S. Department of Education, with customizations by EMSI.

### Industry Data

In order to capture a complete picture of industry employment, EMSI basically combines covered employment data from Quarterly Census of Employment and Wages (QCEW) produced by the Department of Labor with total employment data in Regional Economic Information System (REIS) published by the Bureau of Economic Analysis (BEA), augmented with County Business Patterns (CBP) and Nonemployer Statistics (NES) published by the U.S. Census Bureau. Projections are based on the latest available EMSI industry data, 15-year past local trends in each industry, growth rates in statewide and (where available) sub-state area industry projections published by individual state agencies, and (in part) growth rates in national projections from the Bureau of Labor Statistics.

### State Data Sources

This report uses state data from the following agencies: California Labor Market Information Department.

### Occupation Data

Organizing regional employment information by occupation provides a workforce-oriented view of the regional economy. EMSI's occupation data are based on EMSI's industry data and regional staffing patterns taken from the Occupational Employment Statistics program (U.S. Bureau of Labor Statistics). Wage information is partially derived from the American Community Survey. The occupation-to-program (SOC-to-CIP) crosswalk is based on one from the U.S. Department of Education, with customizations by EMSI.

### Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

### State Data Sources

This report uses state data from the following agencies: California Labor Market Information Department.

### Industry Data

In order to capture a complete picture of industry employment, EMSI basically combines covered employment data from Quarterly Census of Employment and Wages (QCEW) produced by the Department of Labor with total employment data in Regional Economic Information System (REIS) published by the Bureau of Economic Analysis (BEA), augmented with County Business Patterns (CBP) and Nonemployer Statistics (NES) published by the U.S. Census Bureau. Projections are based on the latest available EMSI industry data, 15-year past local trends in each industry, growth rates in statewide and (where available) sub-state area industry projections published by individual state agencies, and (in part) growth rates in national projections from the Bureau of Labor Statistics.

## **Occupation Data**

Organizing regional employment information by occupation provides a workforce-oriented view of the regional economy. EMSI's occupation data are based on EMSI's industry data and regional staffing patterns taken from the Occupational Employment Statistics program (U.S. Bureau of Labor Statistics). Wage information is partially derived from the American Community Survey. The occupation-to-program (SOC-to-CIP) crosswalk is based on one from the U.S. Department of Education, with customizations by EMSI.

## **Location Quotient**

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

## **State Data Sources**

This report uses state data from the following agencies: California Labor Market Information Department.

## **Demographic Data**

The demographic data in this report is compiled from several sources using a specialized process. Sources include US Census Bureau annual estimates, birth and mortality rates from the US Health Department, and projected regional job growth.

## **State Data Sources**

This report uses state data from the following agencies: California Labor Market Information Department.

## **Competency Data**

The competency data in this report is taken directly from the O\*NET database.

## Appendix A: How to Use This Report

### About the Centers of Excellence

The Centers of Excellence (COE), in partnership with business and industry, deliver regional workforce research customized for community college decision making and resource development. This information has proven valuable to colleges in beginning, revising, or updating economic development and Career Technical Education (CTE) programs, strengthening grant applications, assisting in the accreditation process, and in supporting strategic planning efforts.

The COE initiative and Rural Opportunities Program is funded in part by the Chancellor's Office, California Community Colleges Economic and Workforce Development Program. The Centers aspire to be the premier source of regional economic and workforce information and insight for California's community colleges.

More information about the Centers of Excellence is available at [www.coeccc.net](http://www.coeccc.net).

### How to Use This Report

This report is designed to provide current industry data specific to your college for:

- Defining potential strategic opportunities relative to an industry's emerging trends and workforce needs;
- Influencing and informing local college program planning and resource development;
- Promoting a future-oriented and market responsive way of thinking among college and community stakeholders;
- Assisting community college administrators, faculty, Economic Development, and CTE administrators, and contract education programs in connecting with industry partners.

The information in this report has been generated using software customized for the COE initiative, including Environmental System Research Institute's (ESRI) GIS Business Analyst application and Economic Modeling Specialists, Inc. (EMSI) economic modeling system. In some instances, the labor market information will suggest that colleges might not want to begin or add programs, thereby avoiding needless replication and low enrollments.

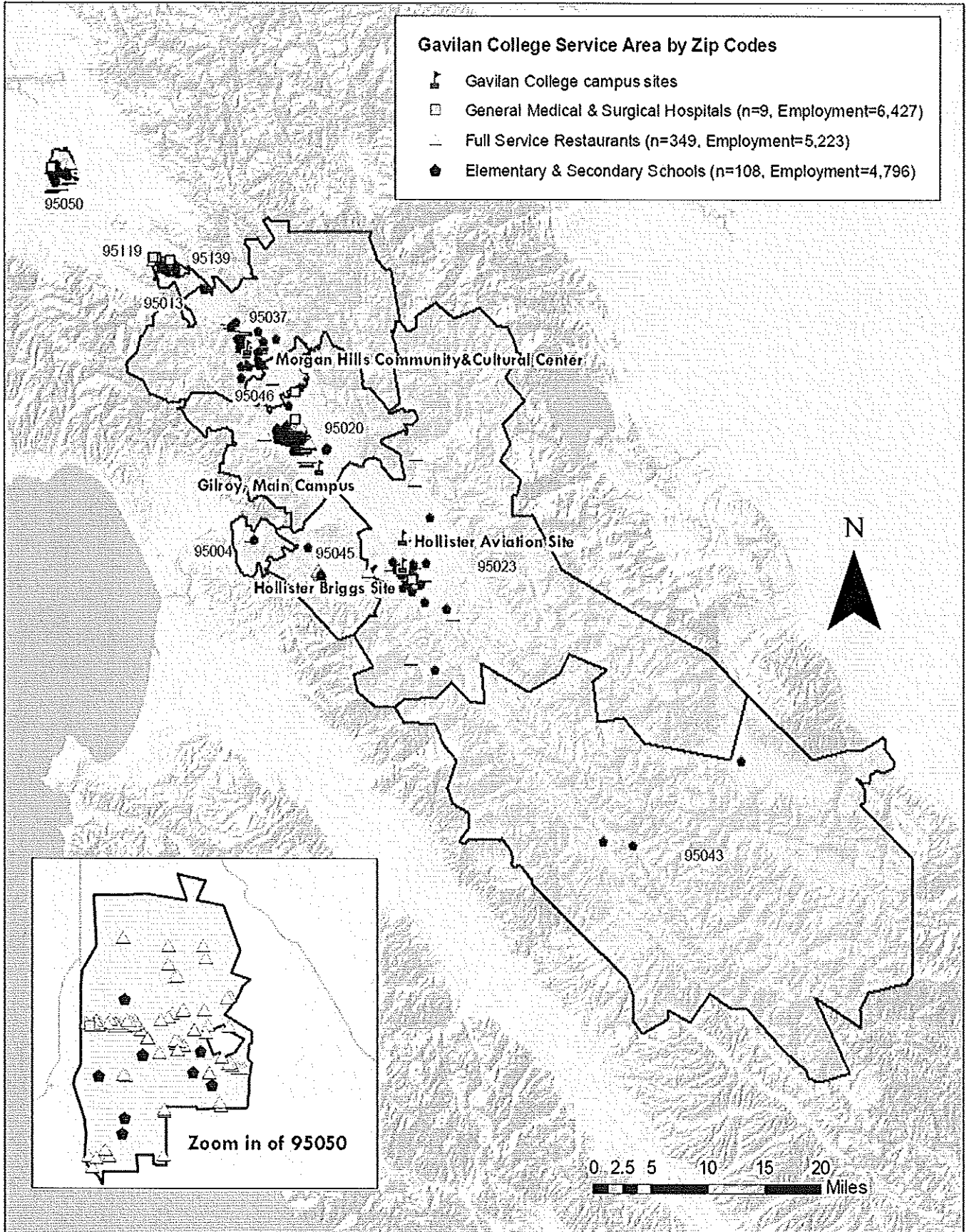
### Important Disclaimer

All information and data included in this customized report have been produced from various publicly and privately available secondary data sources. Unlike Centers of Excellence environmental scan reports, the information contained in this report has not been independently validated by employers, nor does it contain information on other community college and external programs.

Efforts have been made to confirm the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host district, or California Community Colleges Chancellor's Office are responsible for applications or decisions made by recipient community colleges or their representatives based upon this report.

# Appendix B: Industry Maps for Gavilan College Service Area

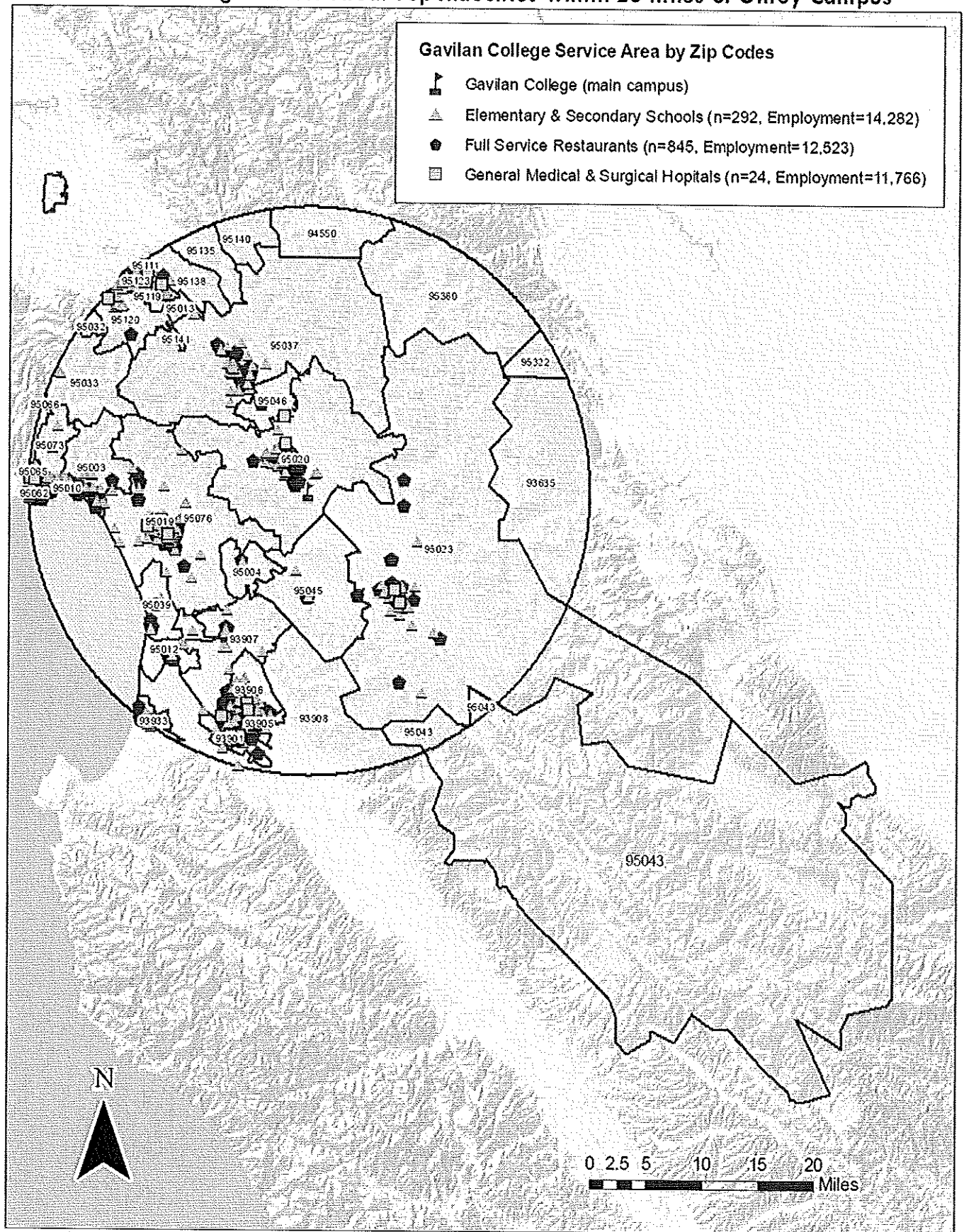
## Gavilan College Service Area: Top Industries by Employment



Created by Center of Excellence, California Community Colleges. Software and data provided by ESRI.



# Gavilan College Service Area: Top Industries within 25 miles of Gilroy Campus



Created by Center of Excellence, California Community Colleges. Software and data provided by ESRI.