

# Occupation Overview

## Engineering Technology

Emsi Q4 2017 Data Set

January 2018

**Bakersfield College**



1801 Panorama Drive

Bakersfield, California 93305  
661.395.4921

# Parameters

## Occupations

Code	Description
17-3021	Aerospace Engineering and Operations Technicians
17-3022	Civil Engineering Technicians
17-3023	Electrical and Electronics Engineering Technicians
17-3025	Environmental Engineering Technicians
17-3026	Industrial Engineering Technicians
17-3027	Mechanical Engineering Technicians
17-3029	Engineering Technicians, Except Drafters, All Other
17-3031	Surveying and Mapping Technicians

## Regions

Code	Description
6029	Kern County, CA
6107	Tulare County, CA

## Timeframe

2018 - 2023

## Datarun

2017.4 – QCEW Employees, Non-QCEW Employees, and Self-Employed

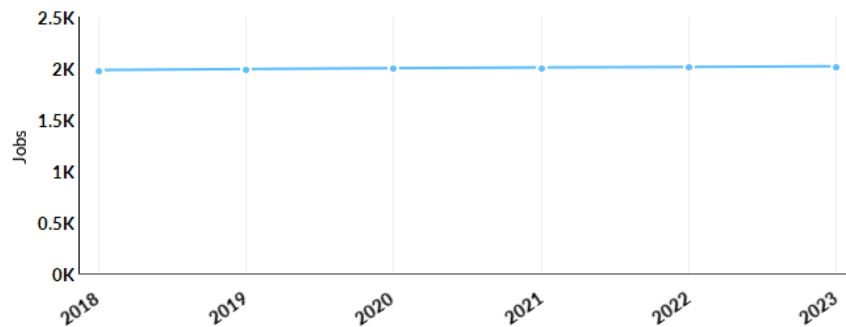
## 8 Architecture and Engineering Occupations in 2 California Counties

# Occupation Summary for 8 Architecture and Engineering Occupations

<b>1,980</b> Jobs (2018) 22% above National average	<b>1.9%</b> % Change (2018-2023) Nation: 2.2%	<b>\$35.17/hr</b> Median Hourly Earnings Nation: \$26.66/hr
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## Growth

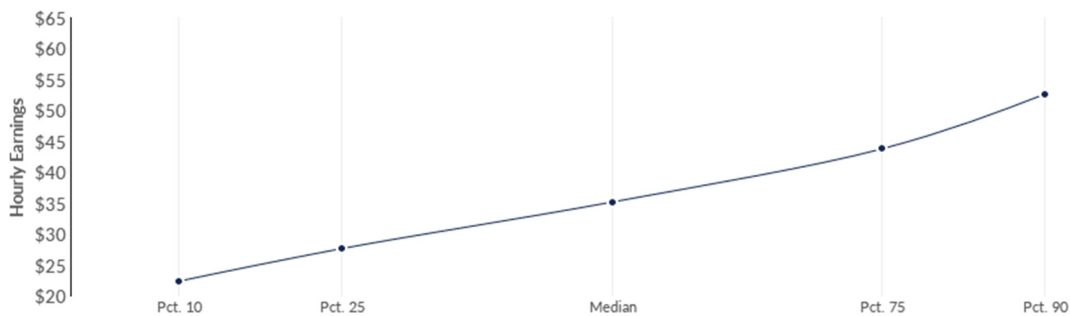
<b>1,980</b> 2018 Jobs	<b>2,017</b> 2023 Jobs	<b>37</b> Change (2018-2023)	<b>1.9%</b> % Change (2018-2023)
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Occupation	2018 Jobs	2023 Jobs	Change	% Change
Aerospace Engineering and Operations Technicians (17-3021)	45	47	2	4%
Civil Engineering Technicians (17-3022)	201	220	19	9%
Electrical and Electronics Engineering Technicians (17-3023)	797	800	3	0%
Environmental Engineering Technicians (17-3025)	65	70	5	8%
Industrial Engineering Technicians (17-3026)	85	92	7	8%
Mechanical Engineering Technicians (17-3027)	71	74	3	4%
Engineering Technicians, Except Drafters, All Other (17-3029)	590	591	1	0%
Surveying and Mapping Technicians (17-3031)	126	123	-3	-2%

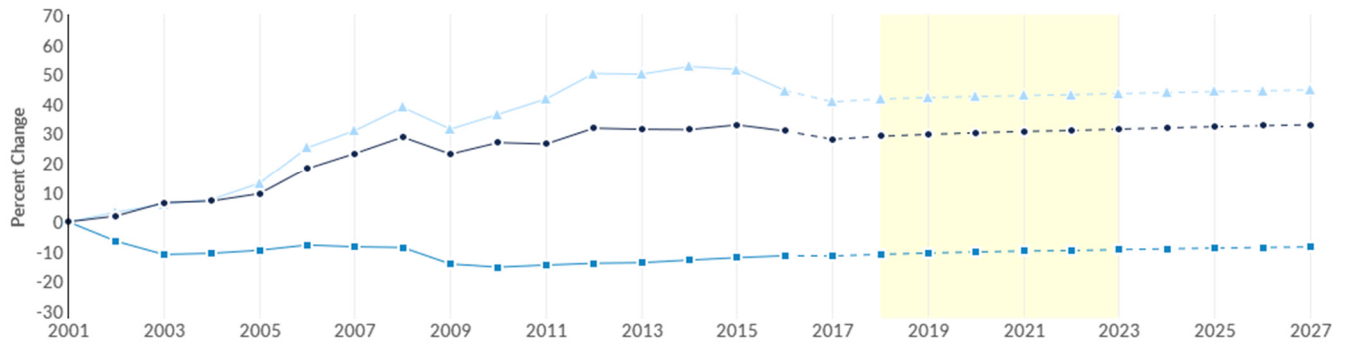
## Percentile Earnings

<b>\$27.63/hr</b> 25th Percentile Earnings	<b>\$35.17/hr</b> Median Earnings	<b>\$43.80/hr</b> 75th Percentile Earnings
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Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Aerospace Engineering and Operations Technicians (17-3021)	\$34.15	\$41.03	\$46.33
Civil Engineering Technicians (17-3022)	\$20.21	\$27.25	\$33.43
Electrical and Electronics Engineering Technicians (17-3023)	\$30.34	\$37.04	\$45.50
Environmental Engineering Technicians (17-3025)	\$14.46	\$20.71	\$25.99
Industrial Engineering Technicians (17-3026)	\$33.66	\$42.20	\$47.41
Mechanical Engineering Technicians (17-3027)	\$23.22	\$28.79	\$34.83
Engineering Technicians, Except Drafters, All Other (17-3029)	\$31.07	\$37.12	\$47.44
Surveying and Mapping Technicians (17-3031)	\$22.11	\$28.49	\$36.00

# Regional Trends

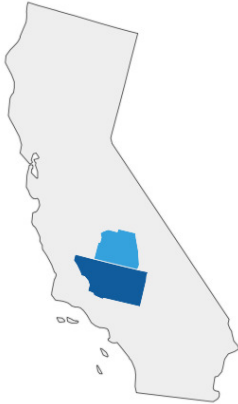


	Region	2018 Jobs	2023 Jobs	Change	% Change
●	Region	1,980	2,017	37	1.9%
●	California	62,427	63,543	1,116	1.8%
●	BC Service Area DEMOGRAPHIC	1,025	1,038	13	1.3%



# Regional Breakdown

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County	2023 Jobs
Kern County, CA	1,776
Tulare County, CA	241

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# Occupation Gender Breakdown

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	Gender	2017 Jobs	2017 Percent	
•	Males	1,564	79.6%	
•	Females	401	20.4%	

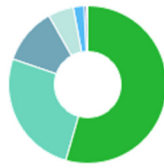
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# Occupation Age Breakdown



	Age	2017 Jobs	2017 Percent
●	14-18	7	0.3%
●	19-24	151	7.7% ■
●	25-34	403	20.5% ■■
●	35-44	401	20.4% ■■
●	45-54	478	24.3% ■■■
●	55-64	426	21.7% ■■■
●	65+	99	5.0% ■

# Occupation Race/Ethnicity Breakdown



	Race/Ethnicity	2017 Jobs	2017 Percent
●	White	1,070	54.4%
●	Hispanic or Latino	506	25.8%
●	Asian	228	11.6%
●	Black or African American	103	5.2%
●	Two or More Races	43	2.2%
●	American Indian or Alaska Native	10	0.5%
●	Native Hawaiian or Other Pacific Islander	5	0.2%

## Occupational Programs

<b>10</b> Programs (2016)		<b>104</b> Completions (2016)	<b>174</b> Openings (2016)
CIP Code	Program	Completions (2016)	
15.0805	Mechanical Engineering/Mechanical Technology/Technician	60	
15.9999	Engineering Technologies and Engineering-Related Fields, Other	35	
15.0613	Manufacturing Engineering Technology/Technician	6	
46.0415	Building Construction Technology	3	
15.0000	Engineering Technology, General	0	

## Industries Employing 8 Architecture and Engineering Occupations

Industry	Occupation Group Jobs in Industry (2017)	% of Occupation Group in Industry (2017)	% of Total Jobs in Industry (2017)
Federal Government, Civilian, Excluding Postal Service	367	18.7%	3.6%
Engineering Services	302	15.4%	11.3%
State Government, Excluding Education and Hospitals	161	8.2%	1.9%
Local Government, Excluding Education and Hospitals	148	7.5%	0.7%
Testing Laboratories	71	3.6%	11.9%

# Appendix A - Data Sources and Calculations

## 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.

## Occupation Data

Emsi occupation employment data are based on final Emsi industry data and final Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level Emsi earnings by industry.

## Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

## State Data Sources

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