

# Drafting Technology Occupation Overview

Emsi Q2 2016 Data Set

July 2016

College of San Mateo



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San Mateo, California 94402  
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# Parameters

## Occupations

| Code    | Description  |
|---------|--|
| 17-3011 | Architectural and Civil Drafters                   |
| 17-3012 | Electrical and Electronics Drafters                |
| 17-3013 | Mechanical Drafters                                |
| 17-3022 | Civil Engineering Technicians                      |
| 17-3023 | Electrical and Electronics Engineering Technicians |
| 17-3025 | Environmental Engineering Technicians              |
| 17-3027 | Mechanical Engineering Technicians                 |
| 17-3031 | Surveying and Mapping Technicians                  |

## Regions

| Code | Description              |
|------|--------------------------|
| 6001 | Alameda County, CA       |
| 6013 | Contra Costa County, CA  |
| 6075 | San Francisco County, CA |
| 6081 | San Mateo County, CA     |
| 6085 | Santa Clara County, CA   |

## Timeframe

2014 - 2021

## Datarun

2016.2 - QCEW Employees

Occupation Summary for DRAF CTE

|  |   |  |
|--|---|--|
| <p><b>17,658</b><br/>Jobs (2016)<br/>47% <b>above</b> National average</p> | <p><b>+9.5%</b><br/>% Change (2014-2021)<br/>Nation: <b>+3.7%</b></p> | <p><b>\$31.01/hr</b><br/>Median Hourly Earnings<br/>Nation: \$25.53/hr</p> |
|--|---|--|

## Growth

16,851

2014 Jobs

18,452

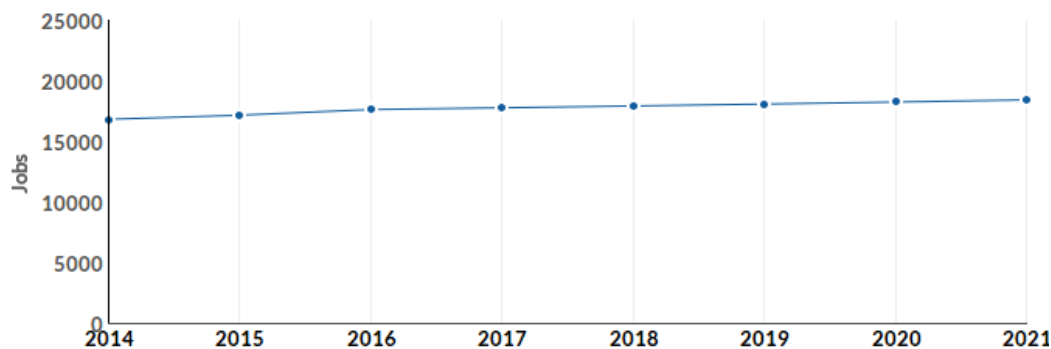
2021 Jobs

1,601

Change (2014-2021)

9.5%

% Change (2014-2021)



| Occupation   | 2014 Jobs | 2021 Jobs | Change | % Change |
|--|-----------|-----------|--------|----------|
| Architectural and Civil Drafters (17-3011)                   | 3,165     | 3,460     | 295    | 9%       |
| Electrical and Electronics Drafters (17-3012)                | 947       | 1,102     | 155    | 16%      |
| Mechanical Drafters (17-3013)                                | 832       | 914       | 82     | 10%      |
| Civil Engineering Technicians (17-3022)                      | 1,741     | 1,914     | 173    | 10%      |
| Electrical and Electronics Engineering Technicians (17-3023) | 7,535     | 8,133     | 598    | 8%       |
| Environmental Engineering Technicians (17-3025)              | 551       | 630       | 79     | 14%      |
| Mechanical Engineering Technicians (17-3027)                 | 1,336     | 1,448     | 112    | 8%       |
| Surveying and Mapping Technicians (17-3031)                  | 745       | 852       | 107    | 14%      |

## Percentile Earnings

**\$25.51/hr**

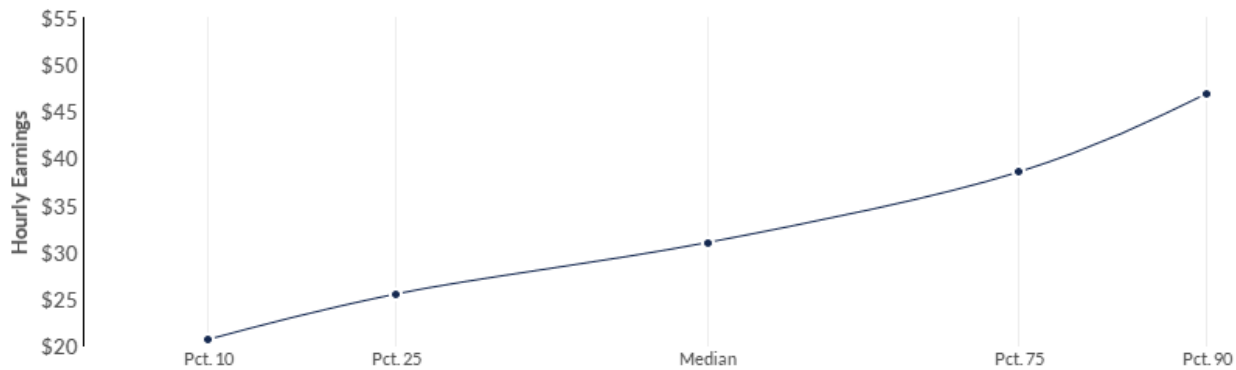
25th Percentile Earnings

**\$31.01/hr**

Median Earnings

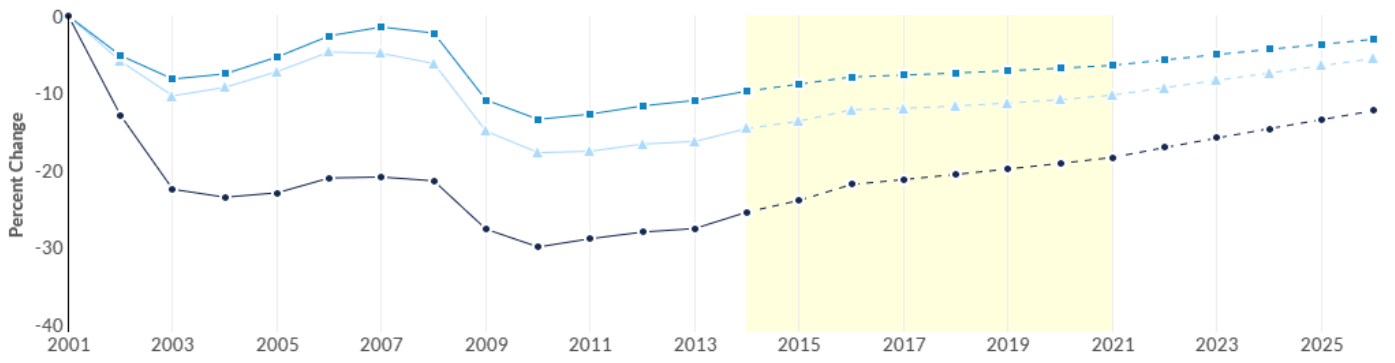
**\$38.55/hr**

75th Percentile Earnings



| Occupation   | 25th Percentile Earnings | Median Earnings | 75th Percentile Earnings |
|--|--------------------------|-----------------|--------------------------|
| Architectural and Civil Drafters (17-3011)                   | \$24.68                  | \$29.01         | \$37.42                  |
| Electrical and Electronics Drafters (17-3012)                | \$30.46                  | \$35.38         | \$43.07                  |
| Mechanical Drafters (17-3013)                                | \$24.79                  | \$30.46         | \$39.04                  |
| Civil Engineering Technicians (17-3022)                      | \$24.66                  | \$29.79         | \$39.49                  |
| Electrical and Electronics Engineering Technicians (17-3023) | \$25.65                  | \$31.52         | \$38.03                  |
| Environmental Engineering Technicians (17-3025)              | \$25.99                  | \$34.15         | \$42.43                  |
| Mechanical Engineering Technicians (17-3027)                 | \$23.28                  | \$28.74         | \$35.70                  |
| Surveying and Mapping Technicians (17-3031)                  | \$27.68                  | \$33.97         | \$42.33                  |

# Regional Trends



| Region       | 2014 Jobs | 2021 Jobs | Change | % Change |
|--------------|-----------|-----------|--------|----------|
| ● Region     | 16,851    | 18,452    | 1,601  | 9.5%     |
| ■ Nation     | 512,612   | 531,614   | 19,002 | 3.7%     |
| ▲ California | 61,682    | 64,810    | 3,128  | 5.1%     |

## Regional Breakdown



| County                   | 2021 Jobs |
|--------------------------|-----------|
| Santa Clara County, CA   | 9,684     |
| Alameda County, CA       | 3,749     |
| San Francisco County, CA | 2,739     |
| Contra Costa County, CA  | 1,327     |
| San Mateo County, CA     | 954       |

## Job Postings Summary

626

Unique Postings (May 2016)  
1,599 Total Postings

3 : 1

Posting Intensity (May 2016)



There were 1,599 total job postings for 8 *Occupations* in May 2016, of which 626 were unique. These numbers give us a Posting Intensity of 3-to-1, meaning that for every 3 postings there is 1 unique job posting.

This is lower than the Posting Intensity for all other occupations and companies in the region (5-to-1), indicating that companies may not be trying as hard to hire this position.

## Occupation Gender Breakdown



| Gender    | 2016 Jobs | 2016 Percent |
|-----------|-----------|--------------|
| ● Males   | 14,058    | 79.6%        |
| ● Females | 3,601     | 20.4%        |

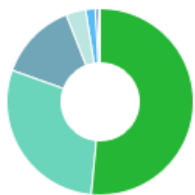


## Occupation Age Breakdown



| Age   | 2016 Jobs | 2016 Percent |
|-------|-----------|--------------|
| 14-18 | 62        | 0.4%         |
| 19-24 | 885       | 5.0%         |
| 25-34 | 3,261     | 18.5%        |
| 35-44 | 4,436     | 25.1%        |
| 45-54 | 5,154     | 29.2%        |
| 55-64 | 3,165     | 17.9%        |
| 65+   | 695       | 3.9%         |

## Occupation Race/Ethnicity Breakdown



| Race/Ethnicity                            | 2016 Jobs | 2016 Percent |
|---|-----------|--------------|
| White                                     | 9,099     | 51.5%        |
| Asian                                     | 5,110     | 28.9%        |
| Hispanic or Latino                        | 2,399     | 13.6%        |
| Black or African American                 | 607       | 3.4%         |
| Two or More Races                         | 294       | 1.7%         |
| Native Hawaiian or Other Pacific Islander | 81        | 0.5%         |
| American Indian or Alaska Native          | 68        | 0.4%         |

## Occupational Programs

|                              |                                  |                               |
|------------------------------|----------------------------------|-------------------------------|
| <b>19</b><br>Programs (2014) | <b>390</b><br>Completions (2014) | <b>704</b><br>Openings (2014) |
|------------------------------|----------------------------------|-------------------------------|

| CIP Code | Program   | Completions (2014) |
|----------|---|--------------------|
| 46.0415  | Building Construction Technology  | 124                |
| 15.0303  | Electrical, Electronic and Communications Engineering Technology/Technician | 78                 |
| 15.0805  | Mechanical Engineering/Mechanical Technology/Technician                     | 62                 |
| 15.1301  | Drafting and Design Technology/Technician, General                          | 36                 |
| 04.0901  | Architectural Technology/Technician   | 35                 |

## Industries Employing DRAF CTE

| Industry  | Occupation Group Jobs in Industry (2016) | % of Occupation Group in Industry (2016) | % of Total Jobs in Industry (2016) |
|---|--|--|------------------------------------|
| Engineering Services                                | 3,127                                    | 17.7%                                    | 11.3%                              |
| Semiconductor and Related Device Manufacturing      | 1,894                                    | 10.7%                                    | 6.2%                               |
| Architectural Services                              | 1,699                                    | 9.6%                                     | 19.6%                              |
| Electronic Computer Manufacturing                   | 1,572                                    | 8.9%                                     | 3.0%                               |
| Local Government, Excluding Education and Hospitals | 689                                      | 3.9%                                     | 0.6%                               |

# 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.

## Completers Data

The completers 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.

## 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