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**Plumbing Apprenticeship Program Report
For Greater South Bay and Peninsula Region
(Santa Clara and San Mateo Counties)**

Plumbing Technology/Plumber

CIP 2010: A program that prepares individuals to practice as licensed plumbers by applying technical knowledge and skills to lay out, assemble, install, and maintain piping fixtures and systems for steam, natural gas, oil, hot water, heating, cooling, drainage, lubricating, sprinkling, and industrial processing systems in home and business environments. Includes instruction in source determination, water distribution, waster removal, pressure adjustment, basic physics, technical mathematics, blueprint reading, pipe installation, pumps, welding and soldering, plumbing inspection, and applicable codes and standards.

Target Occupations

Pipelayers (47-2151)

Plumbers, Pipefitters, and Steamfitters (47-2152)

Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters (47-3015)

Septic Tank Servicers and Sewer Pipe Cleaners (47-4071)

‡Based on EMSI crosswalk of the Classification of Instructional Programs (CIP) codes with Standard Occupational Classification (SOC) codes as published by the U.S. Department of Education.

In 2012, the number of plumbing jobs in the target occupations in Santa Clara and San Mateo Counties totaled 3,296. The Bureau of Labor Statistics (BLS) expects the total number of positions to increase by 5.5% over the next three years. Regional openings in 2012, which included created jobs and turnover, totaled 431. Completions in plumbing technology programs totaled 28.

Target Occupation Performance

3,296* Jobs (2012) National Location Quotient: 0.76 [†]	5.5%* Growth (2013-2016) National: 5.8%	\$34.61/hr Median Earnings National: \$21.55/hr
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*Based on total number of jobs for target occupations Santa Clara and San Mateo Counties.

[†]Represents occupation density as compared to national average (national average=1).

Regional Openings (2012)**	431
Regional Program Completions (2012)	28
All Regional Completions for Target Occupations ^{††} (2012)	28

**Openings include created jobs and turnover.

^{††}Includes all regional programs applicable to target occupations.

Plumbing Occupations Performance

Target Occupations	Regional Openings (2012)	Average Hourly Earnings	Growth (2013-2016)
Septic Tank Servicers and Sewer Pipe Cleaners (47-4071)	7	\$22.68	-1.7%
Pipelayers (47-2151)	26	\$28.13	2.1%
Plumbers, Pipefitters, and Steamfitters (47-2152)	357	\$36.90	5.4%
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters (47-3015)	41	\$18.13	13.7%

Regional Breakdown for Plumbing Occupations

County Name	2013 Jobs	2016 Jobs	2013 Annual Openings	Median Hourly Earnings	2013 National Location Quotient
Santa Clara	2,269	2,274	65	\$37.51	0.70
San Mateo	1,355	1,548	109	\$29.59	1.11
Total	3,623	3,822	175	\$34.61	

Target Occupations Demographics

The demographics among those employed in plumbing occupations in Santa Clara and San Mateo Counties for 2013 show that almost all are men (96.0%) and over half are between the ages of 25-44 (56.2%).

Gender Demographics (Regional)

Gender	Jobs (2013)	% of Total	
Male	3,479	96.0%	
Female	144	4.0%	

Age Demographics (Regional)

Age	Jobs (2013)	% of Total	
14-18 Years	21	0.6%	
19-21 Years	75	2.1%	
22-24 Years	173	4.8%	
25-34 Years	1,026	28.3%	
35-44 Years	1,013	27.9%	
45-54 Years	924	25.5%	
55-64 Years	351	9.7%	
65+ Years	41	1.1%	

Industries Employing Plumbing Occupations

A number of industries in Santa Clara and San Mateo Counties employ those trained in plumbing. The following table represents a regional industry breakdown of the number of plumbers employed, the percentage of plumbers employed by industry and the percentage plumbers represent within all jobs by each industry. While plumbing, heating, and air-conditioning contractors employed 75.2% of all regional plumbers in 2013, plumbing and its associated jobs made up over one-fourth of the total jobs in that industry (28.2%).

Inverse Staffing Patterns (Regional)

Top Five Industries	Occupation Group Jobs in Industry (2013)	% of Occupation Group in Industry (2013)	% of Total Jobs in Industry (2013)
Plumbing, Heating, and Air-Conditioning Contractors (238220)	2,725	75.2%	28.2%
Local Government, Excluding Education and Hospitals (903999)	163	4.5%	0.4%
Water and Sewer Line and Related Structures Construction (237110)	99	2.7%	11.6%
Commercial and Institutional Building Construction (236220)	92	2.5%	2.0%
Natural Gas Distribution (221210)	56	1.6%	4.3%

Data Sources and Calculations

State Data Sources

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

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.

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.

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.

Staffing Patterns Data

The staffing pattern data in this report are compiled from several sources using a specialized process. For QCEW and Non-QCEW Employees classes of worker, sources include Occupational Employment Statistics, the National Industry-Occupation Employment Matrix, and the American Community Survey. For the Self-Employed and Extended Proprietors classes of worker, the primary source is the American Community Survey, with a small amount of information from Occupational Employment Statistics.

Industry Data

EMSI industry data have various sources depending on the class of worker. (1) For QCEW Employees, EMSI primarily uses the QCEW (Quarterly Census of Employment and Wages), with supplemental estimates from County Business Patterns and Current Employment Statistics. (2) Non-QCEW employees data are based on a number of sources including QCEW, Current Employment Statistics, County Business Patterns, BEA State and Local Personal Income reports, the National Industry-Occupation Employment Matrix (NIOEM), the American Community Survey, and Railroad Retirement Board statistics. (3) Self-Employed and Extended Proprietor classes of worker data are primarily based on the American Community Survey, Nonemployer Statistics, and BEA State and Local Personal Income Reports. Projections for QCEW and Non-QCEW Employees are informed by NIOEM and long-term industry projections published by individual states.