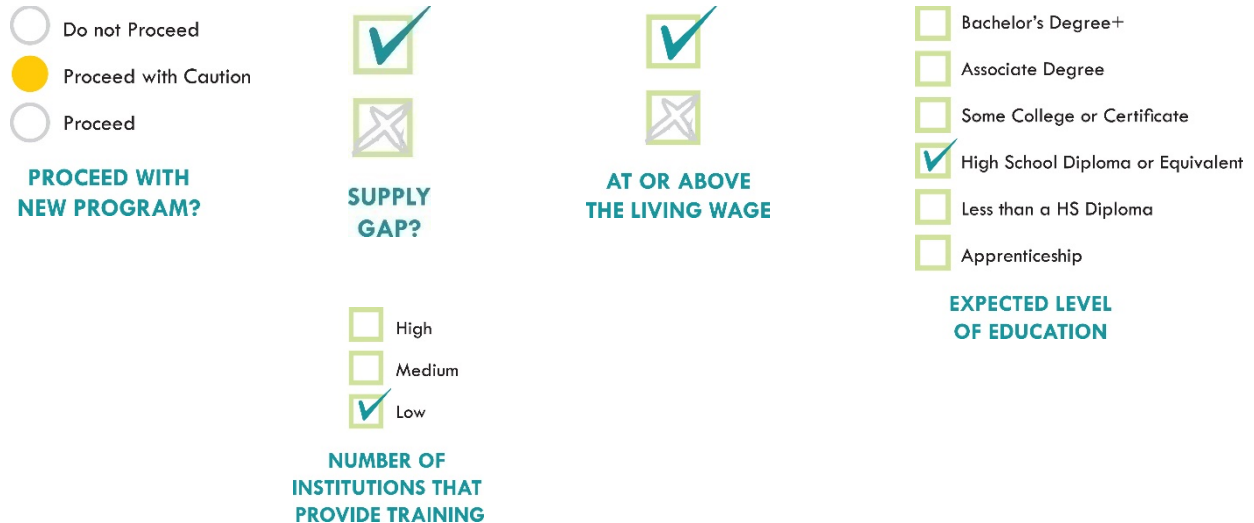


Plumbing, Pipefitting and Steamfitting

Labor Market Analysis for San Diego Continuing Education

September 2019

Summary



This report provides labor market information for occupation(s) selected by San Diego Continuing Education for its *Plumbing, Pipefitting and Steamfitting* program. The training provided by this program is likely to lead to employment as *Septic Tank Servicers and Sewer Pipe Cleaners*. According to available labor market information, this occupation has a labor market demand of 51 annual job openings, while average demand for an occupation in San Diego County is 277 annual job openings. One community college supplies the region with 13 for-credit awards (1 associate degree and 12 certificates with 18 to < 30 units): San Diego City College. Only San Diego Continuing Education supplies noncredit awards for this occupation, which averaged 26 awards over the past three program years. This brief recommends proceeding with caution for a new program because there are few annual job openings and there is a very small supply gap (39 for-credit and noncredit awards vs. 51 annual job openings). However, median wages are above the living wage, suggesting that students who successfully complete a program and obtain employment in a related field may earn a living wage. Expected level of education for this occupation is a high school diploma or equivalent.

Introduction

This report provides labor market information (LMI) in San Diego County for occupations related to the six-digit Taxonomy of Programs¹ (TOP) code, Plumbing, Pipefitting and Steamfitting (TOP 095230). The purpose of this brief is to assist noncredit program providers in the region, such as San Diego Continuing Education (SDCE), with program development and review. SDCE identified one occupation from the Standard Occupational Classification (SOC)² system for *Plumbing, Pipefitting and Steamfitting*, which will be the focus of this report:

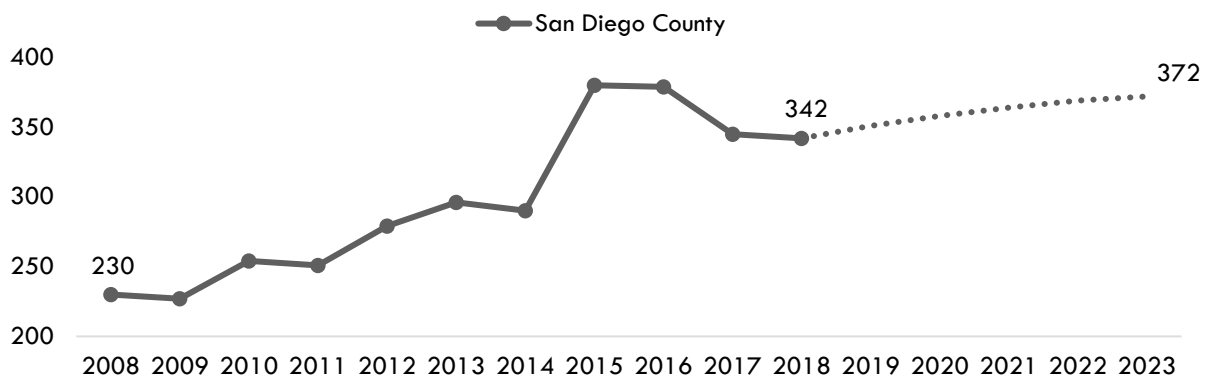
Septic Tank Servicers and Sewer Pipe Cleaners (SOC 47-4071): Clean and repair septic tanks, sewer liners, or drains. May patch walls and partitions of tank, replace damaged drain tile, or repair breaks in underground piping. Sample reported job titles include:

- Drain Technician
- Public Works Technician
- Service Technician
- Septic Cleaner
- Laborer
- Septic Pump Truck Driver
- Sewer Bricklayer
- Septic Tank Service Technician
- Maintenance Worker
- Drain Cleaner

Projected Occupational Demand

Between 2018 and 2023, *Septic Tank Servicers and Sewer Pipe Cleaners* are projected to increase by **30** net jobs or **nine** percent (Exhibit 1). Employers in San Diego County will need to hire **51** workers annually to fill new jobs and backfill jobs due to attrition caused by turnover and retirement, for example.

Exhibit 1: Number of Jobs for Septic Tank Servicers and Sewer Pipe Cleaners (2008-2023)³



¹ Taxonomy of Programs (TOP) is a system of codes used by the California Community Colleges for the purpose of collecting, calculating, or disseminating data about similar training programs.

² The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. [bls.gov/soc](https://www.bls.gov/soc).

³ Emsi 2019.03; QCEW, Non-QCEW, Self-Employed.

Online Job Postings

This report analyzes not only historical and projected (traditional LMI) data, but also recent data from online job postings (real-time LMI). Online job postings may provide additional insight about recent changes in the labor market demand that are not captured by historical data. Between 2010 and 2018, there was an average of **one** online job postings per year for *Septic Tank Servicers and Sewer Pipe Cleaners* in San Diego County (Exhibit 2).

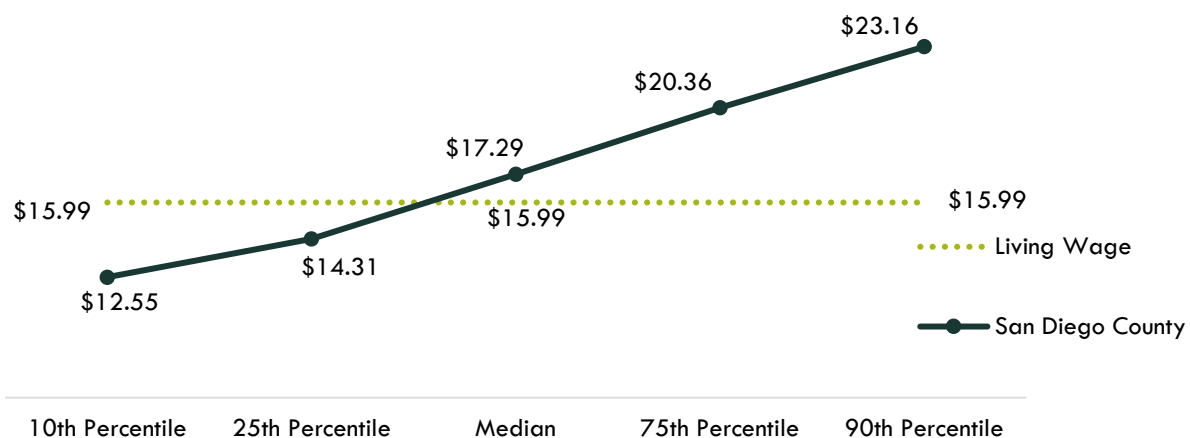
Exhibit 2: Number of Online Job Postings for Septic Tank Servicers and Sewer Pipe Cleaners in San Diego County (2010-2018)⁴



Earnings

Septic Tank Servicers and Sewer Pipe Cleaners receive median hourly earnings of **\$17.29**; this is more than the living wage for a single adult in San Diego County, which is **\$15.99** per hour (Exhibit 3).⁵

Exhibit 3: Hourly Earnings⁶ for Septic Tank Servicers and Sewer Pipe Cleaners in San Diego County⁷



⁴ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2010-2018.

⁵ "California Family Needs Calculator." Insight Center for Community Economic Development, last updated 2018. insightccd.org/2018-family-needs-calculator.

⁶ 10th and 25th percentiles could be considered entry-level wages, and 75th and 90th percentiles could be considered experienced wages for individuals who may have been in the occupation longer, received more training than others, etc.

⁷ Emsi 2019.03; QCEW, Non-QCEW, Self-Employed.

Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards conferred by a course or program in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes.⁸ According to TOP and CIP⁹ data, **one** community college supplies the region with for-credit awards for Plumbing, Pipefitting and Steamfitting (TOP 095230): **San Diego City College**. While associate degrees are offered, San Diego City College supplied primarily certificates with 18 to < 30 units (Exhibit 4b) in the past three program years (Exhibit 4).

Exhibit 4: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions (Program Years 2015-16 through 2017-18)

College	Award Type	PY 15-16	PY 16-17	PY 17-18	3-Year Avg
San Diego City	Associate of Science (A.S.) degree	1	2	0	1
	Certificate 18 to < 30 units	22	13	0	12
Total		23	15	0	13

In terms of noncredit awards, only San Diego Continuing Education provides noncredit awards for Plumbing, Pipefitting and Steamfitting (TOP 095230), with an average of **26** noncredit awards between program years 2015-16 and 2017-18 (Exhibit 5).

Exhibit 5: Number of Noncredit Awards (Certificates and Degrees) Conferred by SDCE (Program Years 2015-16 through 2017-18)

Program Title	Award Type	PY 15-16	PY 16-17	PY 17-18	3-Year Avg
Plumbing	Program Award	36	19	23	26

⁸ TOP data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data)

⁹ There are two CIP codes related to Plumbing, Pipefitting and Steamfitting (TOP 095230): Pipefitting/Pipefitter and Sprinkler Fitter (CIP 460502) and Plumbing Technology/Plumber (CIP 460503).

Demand vs. Supply

In short, the region supplies 39 for-credit and noncredit awards for 51 annual job openings, suggesting that there is a labor market supply gap (Exhibit 6).

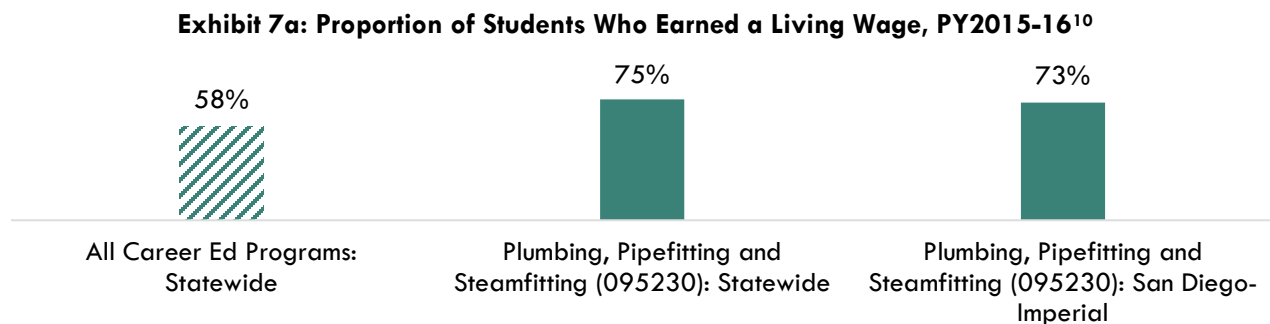
Exhibit 6: Labor Demand (Annual Openings) Compared with Labor Supply (Average Annual Awards)

TOP6 Program	Demand (Annual Openings)	Supply (Total Annual Average Supply)		Supply Gap or Oversupply
		Noncredit	For-Credit	
Plumbing, Pipefitting and Steamfitting (TOP 095230)	51	26	13	12

Please note: This is a basic analysis of supply and demand of labor. The data does not include workers currently in the labor force who could fill these positions or workers who are not captured by publicly available data. This data should be used to discuss the potential gaps or oversupply of workers; however, it should not be the only basis for determining whether or not a program should be developed.

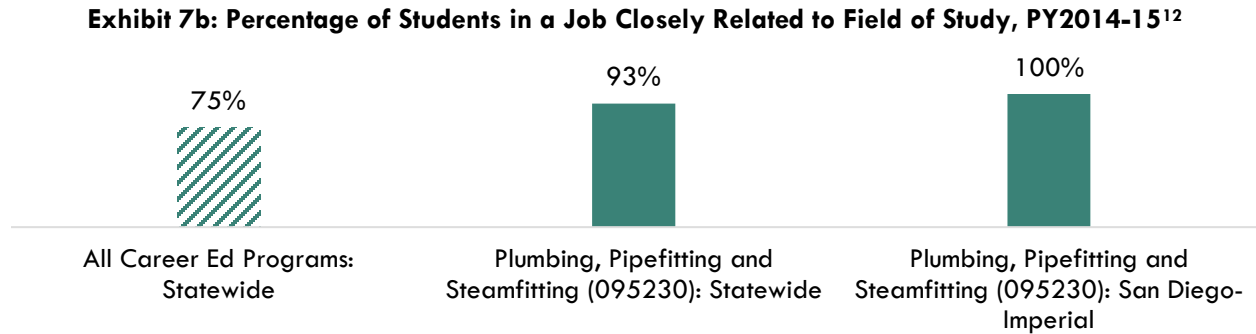
Student Outcomes and Regional Comparisons

According to the California Community Colleges LaunchBoard, 73 percent of students in the San Diego-Imperial region earned a living wage after completing a Plumbing, Pipefitting and Steamfitting (095230) program, compared to 75 percent statewide and 58 percent of students in Career Education programs in general across the state (Exhibit 7a).



¹⁰ Among completers and skills builders who exited, the proportion of students who attained a living wage.

According to the California Community Colleges LaunchBoard, 100 percent of seven students who responded to the Career Technical Education Outcomes Survey (CTEOS)¹¹ in the San Diego-Imperial region obtained a job closely related to their field of study after completing a Plumbing, Pipefitting and Steamfitting (095230), compared to 93 percent statewide and 75 percent of students in Career Education programs in general across the state (Exhibit 7b).



Top Employers and Work Locations

Between January 1, 2016 and December 31, 2018, the top employers in San Diego County for this occupation were [Sewer Pros](#), [Lineage Logistics](#), and [Drain Medic Rx Plumbing Incorporated](#) (Exhibit 8).

Exhibit 8: Top Employers in San Diego County for Septic Tank Servicers and Sewer Pipe Cleaners¹³

Top Employers
<ul style="list-style-type: none"> • Sewer Pros • Lineage Logistics • Drain Medic Rx Plumbing Incorporated

¹¹ cteos.santarosa.edu

¹² Most recent year with available data is Program Year 2014-15. Percentage of Students in a Job Closely Related to Field of Study: Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study.

¹³ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2016-2018.

Skills, Education, and Certifications

Exhibit 9a indicates the educational attainment for the occupation found currently in the national labor force. The typical on-the-job training for this profession is moderate-term on-the-job training. The typical entry-level education is a high school diploma or equivalent.¹⁴ Similarly, between January 1, 2016 and December 31, 2018, 100 percent of online job postings in San Diego County listed high school diploma or vocational training as the required educational attainment.¹⁵

Exhibit 9a: National Educational Requirements for Septic Tank Servicers and Sewer Pipe Cleaners¹⁶

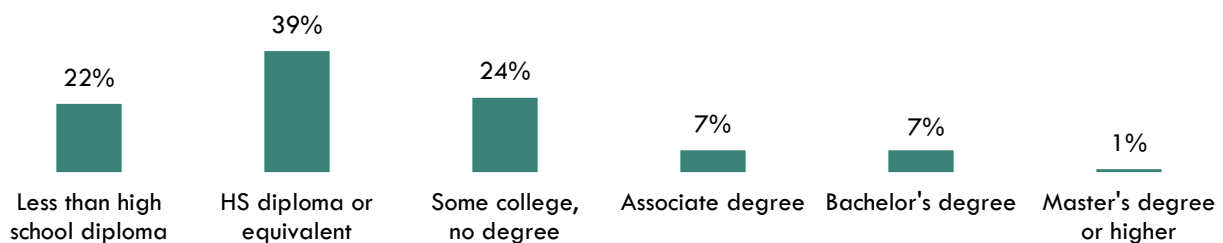


Exhibit 10 lists the top specialized, soft, and software skills that appeared in online job postings between January 1, 2016 and December 31, 2018.

Exhibit 10: Top Skills for Septic Tank Servicers and Sewer Pipe Cleaners in San Diego County¹⁷

Specialized Skills	Soft Skills	Software Skills
<ul style="list-style-type: none"> • Cleaning • Repair • Plumbing • Logistics • Forklift Operation 	<ul style="list-style-type: none"> • Teamwork / Collaboration • Problem Solving • Leadership • Initiative 	<ul style="list-style-type: none"> • N/A

¹⁴ Emsi 2019.03; QCEW, Non-QCEW, Self-Employed.

¹⁵ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2016-2018.

¹⁶ Emsi 2019.03; QCEW, Non-QCEW, Self-Employed.

¹⁷ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2016-2018.

Prepared by:

Tina Ngo Bartel, Director

John Edwards, Research Analyst

San Diego-Imperial Center of Excellence for Labor Market Research

tngobartel@miracosta.edu

jedwards@miracosta.edu



Important Disclaimers

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and the report findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.