

Program Endorsement Brief: 0952.30/Plumbing, Pipefitting, and Steamfitting *Plumbing*

Orange County Center of Excellence, August 2020

Summary Analysis

Program Endorsement:	Endorsed: All Criteria Met	<input type="checkbox"/>	Endorsed: Some Criteria Met	<input checked="" type="checkbox"/>	Not Endorsed	<input type="checkbox"/>
Program Endorsement Criteria						
Supply Gap:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		
Meets Living Wage: (Entry-Level, 25th)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		
Educational Attainment:	HS Diploma or Less	Some College/ Cert./AA	Bachelor's Degree	Graduate Degree		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Emerging Occupation(s)						
	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>		

The Orange County Center of Excellence for Labor Market Research (COE) prepared this report to provide Los Angeles/Orange County regional labor market supply and demand data related to one middle-skill occupation: Plumbers, Pipefitters, and Steamfitters (47-2152). Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree.¹ This report is intended to help determine whether there is demand in the local labor market that is not being met by the supply from community college programs that align with the relevant occupation.

Based on the available data, there appears to be a supply gap for plumbers, pipefitters, and steamfitters in the region. However, the Bureau of Labor Statistics (BLS) lists a high school diploma as the typical entry-level education for plumbers, pipefitters, and steamfitters.

Therefore, due to some of the criteria being met, the COE endorses this proposed program.

Reasons include:

Demand:

- Over the next five years, there is projected to be **2,627 jobs available annually** in the region due to new job growth and replacements, **which is more than the 27 awards conferred annually** by educational institutions in the region.
- The BLS lists a **high school diploma as the typical entry-level education** for plumbers, pipefitters, and steamfitters.

¹ The COE classifies middle-skill jobs as the following:

- All occupations that require an educational requirement of some college, associate degree or apprenticeship;
- All occupations that require a bachelor's degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
- All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

- However, the national-level educational attainment data indicates **32.3% of workers in the field have completed some college or an associate degree.**
- Within Orange County, **typical entry-level hourly wages** for plumbers, pipefitters, and steamfitters are **\$19.21, which are higher than the living wage** for one adult (\$17.36).²

Supply:

- There is **1 community college** in the region that issues awards related to plumbing, pipefitting, and steamfitting, conferring an average of **27 awards annually** between 2016 and 2019.
- **Currently, there are no non-community college programs** or awards associated with plumbing, pipefitting, and steamfitting **in the Los Angeles/Orange County region.**

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for plumbers, pipefitters, and steamfitters. In Los Angeles/Orange County, the number of jobs related to this occupation is projected to increase by 10% through 2024. There will be more than 2,600 job openings per year through 2024 due to job growth and replacements.

This report includes employment projection data by Emsi which uses EDD information. Emsi’s projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy, during the projection period, will be at approximately full employment. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, it may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Therefore, the projections included in this report do not take the impacts of COVID-19 into account.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties³

Geography	2019 Jobs	2024 Jobs	2019-2024 Change	2019-2024 % Change	Annual Openings
Los Angeles	12,172	13,068	896	7%	1,579
Orange	7,106	8,127	1,021	14%	1,048
Total	19,278	21,195	1,917	10%	2,627

Wages

The labor market endorsement in this report considers the entry-level hourly wages for plumbers, pipefitters, and steamfitters in Orange County as they relate to the county’s living wage. Los

² Living wage data was pulled from California Family Needs Calculator on 7/8/20. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

³ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Angeles County wages are included below in order to provide a complete analysis of the LA/OC region. Detailed wage information, by county, is included in Appendix A.

Orange County—Typical entry-level and median hourly wages for plumbers, pipefitters, and steamfitters are \$19.12 and \$28.78, respectively.⁴ Entry-level wages for this occupation are higher than the living wage for one adult in Orange County. Experienced workers can expect to earn \$40.99, which is higher than the living wage estimate. Orange County's average wages are above the average statewide wage of \$29.15 for these occupations.

Los Angeles County—Typical entry-level and median hourly wages for plumbers, pipefitters, and steamfitters are \$16.20 and \$24.25, respectively. Entry-level wages for this occupation are higher than the living wage for one adult in Los Angeles County (\$15.04). Experienced workers can expect to earn wages of \$34.94, which is higher than the living wage estimate. Los Angeles County's average wages are below the average statewide wage of \$29.15 for commercial pilots.

Job Postings—There were 1,094 online job postings related to plumbers, pipefitters, and steamfitters listed in the past 12 months. The highest number of job postings were for plumbers, plumbing technicians, service technicians, pipefitters, and fire sprinkler fitters. The top skills were: plumbing, repair, hand tools, plumbing systems, and schematic designs. The top three employers, by number of job postings, in the region were: Roto Rooter, ARS Rescue Rooter, and Rooter Hero Plumbing.

It is important to note that the job postings data included in this section reflects online job postings listed in the past 12 months and does not yet demonstrate the impact of COVID-19. While employers have generally posted fewer online job postings since the beginning of the pandemic, the long-term effects are currently unknown.

Educational Attainment—The Bureau of Labor Statistics (BLS) lists a high school diploma as the typical entry-level education for plumbers, pipefitters, and steamfitters. The national-level educational attainment data indicates 32.3% of workers in the field have completed some college or an associate degree. Of the 16% of plumber, pipefitter, and steamfitter job postings listing a minimum education requirement in Los Angeles/Orange County, 99% (171) requested a high school diploma and 1% (2) requested an associate degree.

Educational Supply

Community College Supply—Exhibit 2 shows the three-year average number of awards conferred by community colleges in the related TOP code: Plumbing, Pipefitting, and Steamfitting (0952.30). The only program in the region with completions in the last three years is LA Trade-Tech. Over the past 12 months, there were no other related program recommendation requests from regional community colleges.

Currently, there are no non-community college programs or awards associated with this occupation in the Los Angeles/Orange County region.

⁴ Living wage data was pulled from California Family Needs Calculator on 7/6/2020. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

Exhibit 2: Regional community college awards (certificates and degrees), 2016-2019

TOP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
0952.30	Plumbing, Pipefitting and Steamfitting	LA Trade-Tech	35	35	10	27
		LA Subtotal	35	35	10	27
Supply Total/Average			35	35	10	27

Appendix A: Occupational demand and wage data by county

Exhibit 3. Orange County

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Plumbers, Pipefitters, and Steamfitters (47-2152)	7,106	8,127	1,021	14%	1,048	\$19.21	\$28.78	\$40.99

Exhibit 4. Los Angeles County

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Plumbers, Pipefitters, and Steamfitters (47-2152)	12,172	13,068	896	7%	1,579	\$16.20	\$24.25	\$34.94

Exhibit 5. Los Angeles and Orange Counties

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings
Plumbers, Pipefitters, and Steamfitters (47-2152)	19,278	21,195	1,917	10%	2,627

Appendix B: Sources

- O*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (Emsi)
- Bureau of Labor Statistics (BLS)
- Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- California Family Needs Calculator, Insight Center for Community Economic Development
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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