

APPRENTICESHIPS

NOVEMBER 2016

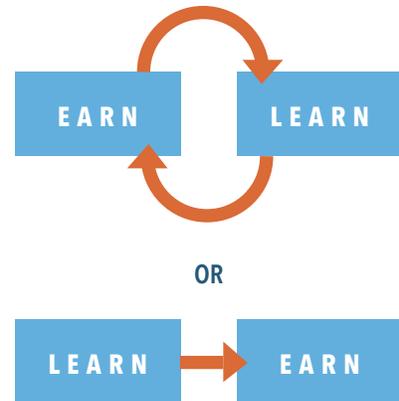


According to U.S. Department of Labor Secretary Thomas Perez, apprenticeships are the “other college, except without the debt.” Apprenticeships are training programs that allow participants or apprentices to train and earn wages for a specific profession at no cost to the apprentice. Nationally, 87% of apprentices obtain employment after program completion, with an average starting salary of \$50,000. For every dollar spent on apprenticeships, employers receive an average return of \$1.47 in increased productivity and reduced waste.

WHAT IS AN APPRENTICESHIP?

A typical apprenticeship program is an earn-while-you-learn training model. In apprenticeships, apprentices are employed by an employer sponsor and receive supplemental instruction at a school that can be directly applied to their employment.

Recent apprenticeship programs developed a learn-then-earn model where apprentices receive related technical instruction before being placed in employment for on-the-job training.



WHAT IS AN EMPLOYER SPONSOR?

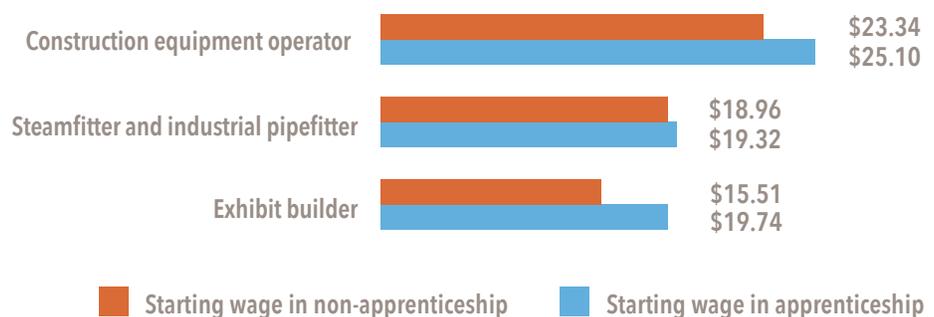
All registered apprenticeship programs have an individual business or a consortium of businesses that serve as the program sponsor. Sponsors provide jobs to apprentices, design and execute the apprenticeship program, and oversee the technical instruction for apprentices.

There are 469 apprenticeship programs registered with the Division of Apprenticeship Standards (DAS). DAS administers and enforces California’s apprenticeship law. DAS promotes apprenticeship training through partnerships and ensures high standards for on-the-job training and supplemental classroom instruction. Many apprenticeship programs have physical offices or locations outside of San Diego County, but have San Diego employer sponsors. Of the 469 California apprenticeship programs, 141 train for San Diego employer sponsors. Of those 141 programs, 39 are physically located in San Diego.

Compared to entry-level workers in a similar occupation, apprentices earn higher starting wages. The occupations on the right illustrate a sample of occupations with higher earnings as apprentices.

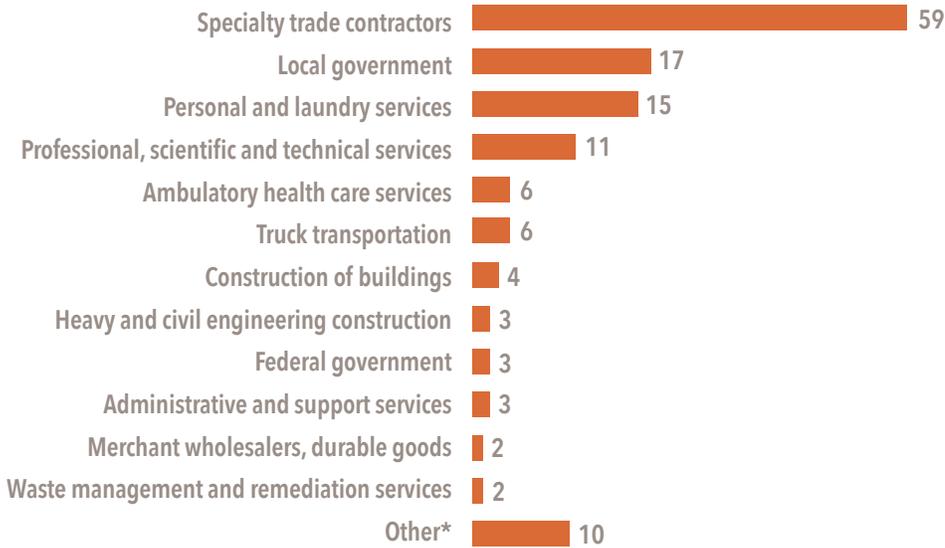


Starting Wages in Non-Apprenticeship and Apprenticeship Occupations



San Diego County has employers in a variety of industries that sponsor or participate in apprenticeship programs. The most number of jobs within these industries in 2016 were in the *specialty trade contractors* with 37,228 jobs, followed by *local government* with 8,361 jobs and *administrative and support services* with 8,194 jobs. Additionally, *specialty trade contractors* and *ambulatory health care services* had the largest employment growth by percentage between 2012 and 2016 with 38.4% and 34.7% growth, respectively.

Apprenticeship Programs in San Diego County by Industry



*Other industries include museums historical sites and similar institutions, accommodation, beverage and tobacco product manufacturing, wood product manufacturing, furniture and related product manufacturing, telecommunications, rental and leasing services, crop production, museums, historical sites and similar institutions, and utilities.

Examples of San Diego Apprenticeship Occupations

- Acoustical installer
- Air conditioning and refrigeration mechanic
- Arson & bomb investigator
- Boilermaker
- Bricklayer/stonemason
- Building construction inspector
- Carpenter
- Chemistry quality control technician
- Clinical research coordinator
- Clinical trial associate
- Computer support specialist - cyber security or
- Computer support specialist - help desk networking
- Construction craft laborer
- Dredge operator
- Drywall finisher
- Electrician
- Electronic systems technician
- Elevator constructor
- Emergency medical technician
- Highway maintenance worker
- Microbiology quality control tech
- Pipefitter/steamfitter
- Project manager
- Quality assurance associate auditor
- Regulatory affairs specialist
- Regulatory compliance associate
- Reinforcing ironworker
- Sheet metal worker
- Sound technician

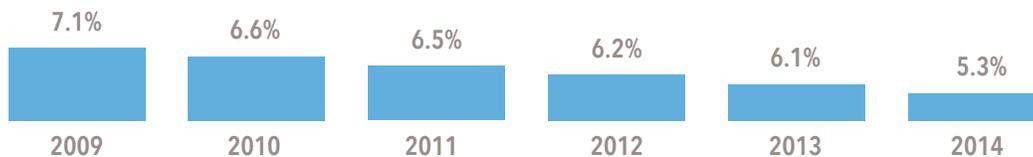


RECOMMENDATIONS

- Promote and raise awareness of apprenticeships, especially for underrepresented populations

While DAS continues to work to increase the number of women and ethnic minorities in apprenticeships, active women apprentices only numbered 2,852, or 5.3%, of all California active apprentices in 2014. To increase this number, workforce development professionals, educators, career counselors and community leaders must work together to educate and promote the benefits and career opportunities of apprenticeship programs.

Percent of Women as Active Apprentices in California



- Increase apprenticeships in industry sectors that are not traditionally known to have apprenticeship programs such as Information and Communication Technologies (ICT), Health Care and Life Sciences
- Reduce complexities in the process for employers or providers to develop and participate in both state and federal registered apprenticeships programs
- Assess students and job seekers' interests and recommend apprenticeships after high school when appropriate

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APPRENTICESHIPS OVERVIEW

What is an apprenticeship?

According to U.S. Department of Labor (DOL) Secretary Thomas Perez, apprenticeships are the “other college, except without the debt.”¹ Apprenticeship programs are industry-focused, employer-sponsored training programs that provide both theoretical classroom instruction and on-the-job training and work experience.²

All California registered apprenticeship programs have 1) a Local Educational Agency (LEA) and 2) an individual business or a consortium of businesses that serve as the program sponsor.³ Apprentices can receive college credit through the LEA, which is defined as “any public education agency authorized by law to provide related and supplemental instruction for apprentices.”⁴ LEAs can be community colleges, adult schools or regional occupational programs (ROP)/Career Technical Education (CTE). Program sponsors provide jobs to apprentices, design and execute the apprenticeship program, and oversee the technical instruction for apprentices.⁵ Because program sponsors cover the costs of instruction and on-the-job training, apprenticeships have rigorous application, examination and selection processes to ensure that candidates of the highest quality are accepted into the programs. To apply to an apprenticeship program, applicants must have, at minimum, a high school diploma or GED. Different programs have different age requirements, ranging from 16 years to 21 years (minimum 18 years for hazardous occupations). The length of apprenticeship programs can also vary between one to six years, depending on the profession, with four years as the general program length. A Joint Apprenticeship Committee (JAC)—or Joint Apprenticeship and Training Committee (JATC)—a Unilateral Apprenticeship Committee (UAC), or an individual employer supervises the training. Once accepted into an apprenticeship program, apprentices sign an apprenticeship agreement with either a JAC/JATC, UAC or individual employer. This agreement clarifies the terms and expectations of the program, and is then filed with the State of California Division of Apprenticeship Standards (DAS).⁶

During training, apprentices learn on the job under an experienced professional, typically a “journeyman” or “journeyworker.”⁷ A journeyworker is defined as someone who completed an accredited apprenticeship in his or her profession, or completed the equivalent of an apprenticeship program, work experience and all other requirements to become a journeyman.⁸ As an apprentice becomes more proficient in his/her profession, he/she earns incremental wage increases. Classroom training may cover industry-related topics such as mathematics, problem solving, and safety skills, while on-the-job training allows the students to get hands-on experience with an experienced professional.

¹ wdel.com/story/77504-us-labor-secretary-apprenticeship-is-the-other-college-except-without-the-debt

² dir.ca.gov

³ dir.ca.gov/das/apprenticeship.pdf

⁴ dir.ca.gov/t8/236.html

⁵ Apprenticeship Program Sponsor can also be “a joint apprenticeship committee, a unilateral apprenticeship committee or a party to a unilateral apprenticeship program where there is no apprenticeship committee established to administer apprenticeship in the occupation, area and industry...The program sponsor must have approved written standards on file with the Division of Apprenticeship Standards.” Reference: dir.ca.gov/t8/236.html

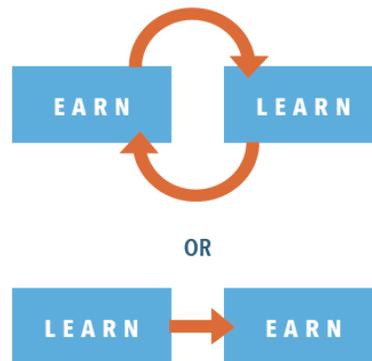
⁶ dir.ca.gov/databases/das/descOfAppr.html

⁷ dol.gov/featured/apprenticeship/faqs

⁸ dir.ca.gov/DAS/DAS_MeetingAgenda/2012/April/ProposedRegsChangesAB56.pdf

A typical apprenticeship program is an earn-while-you-learn training model. In apprenticeships, apprentices are employed by an employer sponsor and receive supplemental instruction at a school that can be directly applied to their employment. Recent apprenticeship programs developed a learn-then-earn model where apprentices receive related technical instruction before being placed in employment for on-the-job training (Figure 1). This allows apprentices to develop skills that may be required prior to working on a jobsite.

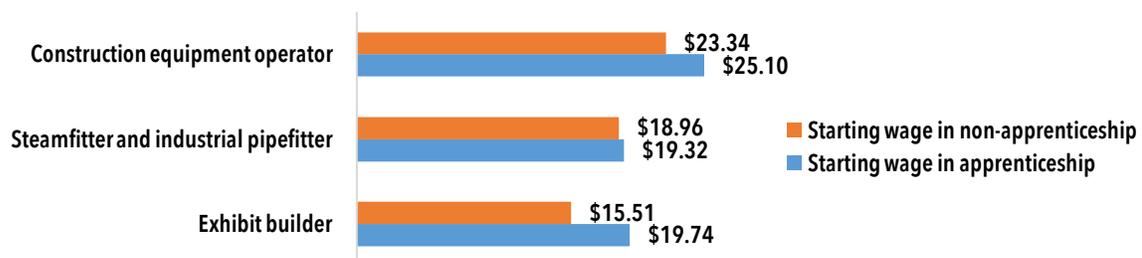
Figure 1: Earn and Learn or Earn-then-Learn Apprenticeships



Benefits of Apprenticeships

In an apprenticeship program, apprentices benefit from wages in high-skill occupations, paid tuition, proficiency in an occupation, recognized certifications and employment.⁹ Nationally, 87 percent of apprentices obtain employment after program completion, with an average starting salary of \$50,000.¹⁰ Many apprenticeship programs have benefits such as paid retirement or pension, college credit or college certificate or degree upon program completion.¹¹ Compared to entry-level workers in a similar occupation, apprentices also earn higher starting wages. Figure 2 compares starting wages in occupations in San Diego County with and without an apprenticeship.¹² Apprentices receive a starting wage at the onset of their profession, but receive increases at regular intervals as they progress in their employment and training.

Figure 2: Sample Starting Wages in Non-Apprenticeship and Apprenticeship Occupations in San Diego County



Not only are there benefits for participants to get free education and training, there are also benefits for employers. For every dollar spent on apprenticeships, employers receive an average return of

⁹ dir.ca.gov/das/apprenticeship.pdf

¹⁰ wdel.com/story/77504-us-labor-secretary-apprenticeship-is-the-other-college-except-without-the-debt

¹¹ dir.ca.gov/das/apprenticeship.pdf

¹² Economic Modeling Specialists, Int'l and Division of Apprenticeship Standards

\$1.47 in increased productivity and reduced waste.¹³ For employers concerned about high turnover, apprenticeships lead to higher employee retention, with 87 percent of program completers retaining employment for at least nine months after the apprenticeship program.¹⁴ Employers who participate in apprenticeship programs have a customized, stable and predictable talent pipeline that is trained systematically, ensuring that workers have certifications and skill sets that meet employer expectations. Once established, employers experience lower costs of recruitment through apprenticeship programs.¹⁵ Apprenticeships may also reduce workers' compensation costs due to the extensive emphasis on safety training.

Federal and State Registered Apprenticeships

The Fitzgerald Act, or National Apprenticeship Act, authorized the national apprenticeship system in 1937, establishing the Office of Apprenticeship (OA) in the U.S. DOL. The Office of Apprenticeship works in conjunction with State Apprenticeship Agencies, which are DOL-approved independent agencies in various states, to administer apprenticeship law and regulate registered apprenticeship programs throughout the nation.¹⁶ A "registered apprenticeship" is an apprenticeship program that meets the standards established under the National Apprenticeship Act designed to protect the safety and welfare of the apprentices. The standards ensure that:

- The methods of training and the contents of training in the agreement between the apprentices and program sponsors are sound
- Apprentices receive employment and supervision
- Apprentices receive wage progression or incremental increases as they become more proficient in a profession
- Apprenticeship programs have proper registration, record maintenance, reporting and certification
- Apprenticeship programs issue nationally recognized and portable Certificates of Completion to apprentices
- The safety and welfare of apprentices are protected
- Programs and sponsors meet compliance with all equal opportunity employment requirements¹⁷

While most states have a State Apprenticeship Agency that is recognized by DOL, California has a separate agency that regulates state-registered apprenticeship programs. Apprenticeship programs in California can elect to register with the DAS and/or DOL's Office of Apprenticeship. In other words, apprenticeship programs that are registered with California's DAS are not necessarily recognized by DOL. To be recognized in the State of California and in the rest of the nation, an apprenticeship program must register with both entities.¹⁸

California leads the nation with 53,366¹⁹ apprentices registered in over 469 programs recognized by DAS, a division within the State of California Department of Industrial Relations (DIR) that administers

¹³ wdel.com/story/77504-us-labor-secretary-apprenticeship-is-the-other-college-except-without-the-debt

¹⁴ doleta.gov/OA/apprenticeship.cfm

¹⁵ wtb.wa.gov/Documents/Apprenticeship2015.pdf

¹⁶ doleta.gov/OA/apprenticeship.cfm

¹⁷ dol.gov/odep/categories/youth/apprenticeship/odep1.pdf

¹⁸ Interview with Cindy Lennon, Able-Disabled Advocacy. September 2016.

¹⁹ For comparison, New York and Pennsylvania, the second and third largest hubs for apprenticeships, have 16,500 and 12,000 apprentices, respectively. Reference: dir.ca.gov/das/das_overview.html

California’s apprenticeship law. The mission of DIR is to protect and improve the health, safety and economic well-being of more than 18 million workers and help their employers comply with state labor laws. DIR is housed within the State of California Labor & Workforce Development Agency. The State of California Labor & Workforce Development Agency (LWDA) is an Executive Branch Agency, and the Secretary is a member of the Governor’s Cabinet.²⁰ The following illustrates the California state governmental hierarchy related to the oversight of state-registered apprenticeships (Figure 3).

Figure 3: California State Government Agencies Related to Apprenticeships



A state-registered apprenticeship is an apprenticeship program recognized by DAS. As of October 2016, there were 469 registered apprenticeship programs throughout the state. Of the 469 California apprenticeship programs, 141 train for San Diego employer sponsors. Of those 141 programs, 39 are physically located in San Diego County (Figure 4).²¹ Many apprenticeship programs have physical offices or locations outside of San Diego County, but have San Diego employer sponsors. As previously mentioned, program sponsors cover the cost of training, provide employment for apprentices, and design the training for their apprenticeship programs.

Figure 4: Apprenticeships in California and San Diego County



²⁰ dir.ca.gov

²¹ dir.ca.gov/databases/das/aigstart.asp

It is important to note the difference between a registered apprenticeship and non-registered apprenticeship program. Non-registered apprenticeship programs do not adhere to the same State required standards as registered apprenticeship programs. Any company can have an “apprenticeship program” where a newly hired worker job shadows a current worker, however, there may not be standardized curricula or procedures in place to ensure quality training. Because they are neither state nor federally recognized, non-registered apprenticeship programs are not officially regulated and it can be difficult to determine if the same protections or quality of training as registered apprenticeship programs are in place. To view the most current list of registered apprenticeship programs in the State of California and confirm if an apprenticeship program is registered with DAS, visit dir.ca.gov/databases/das/aigstart.asp.

Pre-apprenticeships

While not registered apprenticeship programs, pre-apprenticeship programs are designed to prepare prospective participants to enter and succeed in a registered apprenticeship program.²² Pre-apprenticeship programs are neither recognized nor regulated by state or federal government agencies.²³ However, pre-apprenticeships can act as great tools for job seekers or students interested in preparing for a registered apprenticeship program. Pre-apprentices can learn the foundational skills that will later be required at a registered apprenticeship program. Pre-apprenticeships also act as career exploration programs before participants fully commit to a one- to six-year registered apprenticeship program.

Some pre-apprenticeship programs allow participants to complete certain registered apprenticeship requirements before advancing to the actual program. However, unless there are partnerships between the pre-apprenticeship and the registered apprenticeship, there is no guaranteed entry into a registered apprenticeship program.

Apprenticeable Occupations and Industries

Apprenticeship programs train for a variety of industries and occupations. “Apprenticeable occupations” are professions that a state or federal apprenticeship agency recognizes as appropriate occupations for apprenticeship programs. DOL’s apprenticeable occupations differ from California’s

Examples of San Diego Apprenticeship Occupations

- Acoustical installer
- Air conditioning and refrigeration mechanic
- Arson & bomb investigator
- Barber/cosmetologist
- Boilermaker
- Bricklayer/stonemason
- Building construction inspector
- Cabinet maker
- Carpenter
- Chemistry quality control technician
- Clinical data coordinator
- Clinical research coordinator
- Clinical trial associate
- Computer support specialist — cyber security
- Computer support specialist/help desk — networking
- Construction craft laborer
- Dredge operator
- Drywall finisher
- Electrician
- Electronic systems technician
- Elevator constructor
- Emergency medical technician
- Environmental hazardous material emergency responder service worker
- Highway maintenance workers
- Millwright
- Pipefitter/steamfitter
- Project manager
- Regulatory compliance associate
- Reinforcing ironworker
- Sheet metal worker
- Sound technician

²² doleta.gov/OA/preapprentice.cfm

²³ [Ini.wa.gov/TradesLicensing/Apprenticeship/About/IntroProg](http://ini.wa.gov/TradesLicensing/Apprenticeship/About/IntroProg)

apprenticeable occupations. Nationally, DOL recognizes apprenticeship programs that train for more than 1,000 professions across the United States.²⁴ Alternatively, DAS recognizes more than 500 different types of occupations trained by apprenticeship programs in California.²⁵ Of the apprenticeable occupations in California, *specialty trade contractors* has the largest number of apprenticeships in San Diego County, outnumbering any other industry or occupational cluster (Figure 5). For a list of apprenticeship programs located in San Diego County, view Appendix A – Apprenticeships in San Diego County.²⁶

Figure 5: Apprenticeship Programs in San Diego County by Industry



*Other industries include museums historical sites and similar institutions, accommodation, beverage and tobacco product manufacturing, wood product manufacturing, furniture and related product manufacturing, telecommunications, rental and leasing services, crop production, museums, historical sites and similar institutions, and utilities.

Of San Diego County’s industries with apprenticeship programs (Figure 5), *specialty trade contractors* had the most number of jobs in 2016 with 37,228 jobs in the region, followed by local government with 8,361 jobs and administrative and support services with 8,194 jobs.²⁷ (These numbers include total employment in San Diego County, with or without apprenticeships.) Additionally, *specialty trade contractors* and *ambulatory health care services* had the largest percentage growth between 2012 and 2016 with 38.4 percent and 34.7 percent growth, respectively.²⁸

²⁴ doleta.gov/oa/occupations.cfm

²⁵ dir.ca.gov/das/das_overview.html

²⁶ Apprenticeship programs as of October 2016.

²⁷ Economic Modeling Specialists, Int’l. (EMSI). Quarterly Census of Employment and Wages (QCEW) and non-QCEW. Data as of October 10, 2016.

²⁸ EMSI. QCEW and non-QCEW. Data as of October 10, 2016.

Specialty trade contractors includes trades and occupations such as:²⁹

- Carpet, floor, and tile installers and finishers
- Cement masons and concrete finishers
- Construction equipment operators
- Construction laborers
- Drywall installers, ceiling tile installers, and tapers
- Electricians
- Glaziers
- Heating, air conditioning, and refrigeration mechanics and installers
- Painters and paperhangers
- Plumbers, pipefitters and steamfitters
- Roofers
- Sheet metal workers
- Structural iron and steel workers

Apprenticeships that train for *specialty trade contractors* in San Diego County include, but are not limited to:

- Associated Builders & Contractors of San Diego, Inc.
- Associated General Contractors of San Diego, Inc. Construction Equipment Operator Joint Apprenticeship Committee (JAC)
- Innerscity Community Unilateral Apprenticeship Committee
- San Diego Associated General Contractors JAC
- Southern California Carpentry Joint Apprenticeship Training Committee (JATC)
- San Diego & Imperial Counties Pipe Traders JAC
- San Diego Sheet Metal JAC
- San Diego Electrical JATC
- San Diego & Imperial Counties Bricklayers & Stone Masons JATC
- San Diego & Imperial Counties Pipe Trades JAC
- San Diego & Imperial Counties Glaziers JAC
- San Diego & Imperial Counties Roofers & Waterproofers JAC
- San Diego Carpet, Linoleum & Floor Covering Industries JAC

For a more comprehensive list, view Appendix A – Apprenticeships in San Diego County or the DAS website: dir.ca.gov/databases/das/aigstart.asp.

Apprenticeships in Non-Traditional Industries

Information and Communication Technologies (ICT)

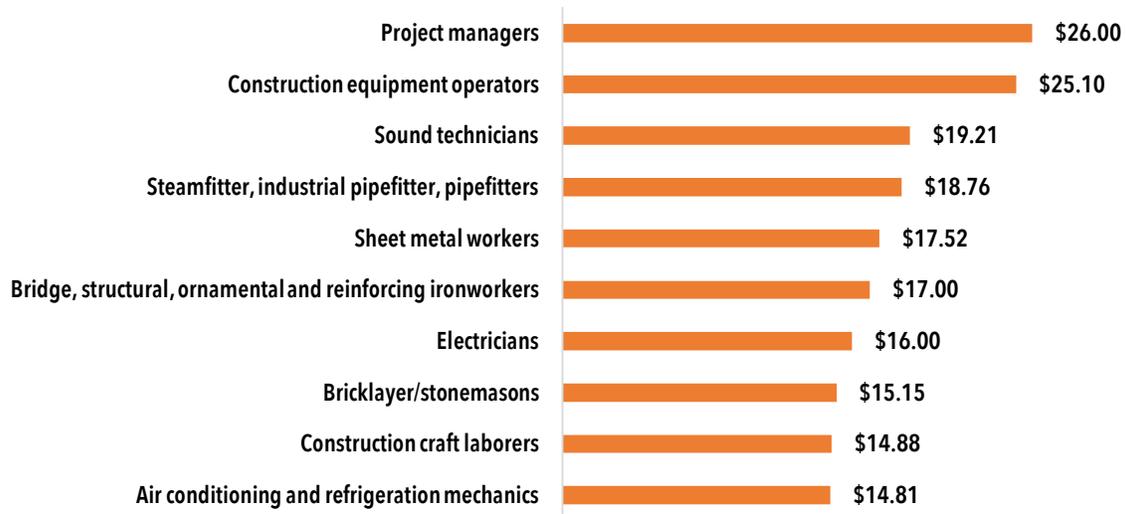
While the majority of apprenticeship programs are traditionally in the construction trades or *specialty trade contractors* industry, apprenticeship programs in non-traditional industries have been recently developed in San Diego County. Able-Disabled Advocacy (A-DA) received a federal grant in November 2015 to develop apprenticeship programs for occupations that do not traditionally have registered apprenticeships in the region: project managers, computer support specialists–networking, and computer support specialists–cybersecurity (i.e., project management, ICT).³⁰

²⁹ These occupational titles were derived from the Division of Apprenticeship Standards database of registered apprenticeship programs. The trade or occupation that each apprenticeship program trains for is listed in the individual apprenticeship profiles: dir.ca.gov/databases/das/aigstart.asp

³⁰ able2work.org/able-disabled-advocacy-announces-3-2-million-u-s-dept-of-labor-grant-kick-off-for-national-apprenticeship-week

Of the apprenticeable occupations in California, project managers in the *professional, scientific and technical services* industry earn the highest starting hourly wages (Figure 6).³¹

Figure 6: Top Starting Hourly Wages of Apprenticeship Programs Located in San Diego County



It is important to note the differences between apprenticeship programs and not assume that all apprenticeship programs have the same requirements, applications or selection processes. Most apprenticeship programs in traditional industries have a minimum age of 16 or 18 years, whereas A-DA’s ICT apprenticeship program’s minimum requirement is 21 years old. Additionally, AD-A requires that all participants pass a drug test, background check, 10th grade reading level and 9th grade math.

An ICT A-DA apprentice must complete six months of A+ and Security+ training prior to continuing on to 12 months of paid on-the-job learning at \$14 per hour. As with all apprenticeship programs, A-DA apprentices obtain incremental wage increases: The wage increases to \$15.40 per hour after 1,000 hours and to \$17.00 per hour after 2,000 hours of paid work experience. The apprentice receives a journey-level certificate after 2,000 hours of work and attainment of certifications. The certifications that an A-DA apprentice could attain include CompTIA A+, Network+, Security+, Windows 7. Because ICT is a continually changing industry, the graduated apprentice, now journeyman or journeyworker, will continue to learn technological updates to stay current and advance in his or her selected career field.

Life Sciences

In partnership with Rx Research Services, Miramar College created the first Life Sciences apprenticeship program in the nation, adding to the number of non-traditional registered apprenticeships. The San Diego Community College District (SDCCD) awarded an Innovative Apprentices for the Life Sciences Industry grant to Miramar College to create and grow Life Sciences apprenticeships in nine occupations:

1. Microbiology quality control technicians
2. Chemistry quality control technician

³¹ EMSI. QCEW and non-QCEW. Data as of October 10, 2016.

3. Regulatory compliance associates
4. Drug safety advocates
5. Regularly affairs specialists
6. Clinical research coordinators
7. Quality assurance associates/GXP auditors
8. Clinical trial assistants
9. Clinical data coordinators

As the Local Educational Agency, Miramar College, home of the Southern California Biotechnology Center partnered with Rx Research Services, the program sponsor, to administer Life Sciences apprenticeships. Under the special grant, Rx Research Services will place at least 30 apprentices at more than 17 companies. The apprentices receive paid on-the-job training for quality and regulatory positions where entry-level median wages range from \$31.08 to \$35.98 per hour.³²

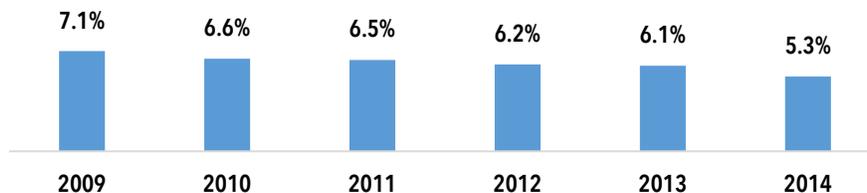
FINDINGS AND RECOMMENDATIONS

In preparation for this study, the San Diego Workforce Partnership (SDWP) research team analyzed apprenticeship listings on DAS’s website, analyzed secondary data, conducted a literature review and interviewed 10 apprenticeship program representatives to learn what could be done to expand apprenticeship programs in San Diego County. For more information on the methodology, view Appendix B – Methodology. The following summarizes recommendations for workforce development professionals, career counselors, educators, students, job seekers, employers and prospective apprenticeship program providers.

Workforce development professionals, career counselors and educators should increase awareness of apprenticeships in San Diego County and promote pre-apprenticeship programs especially for women and ethnic minorities who are underrepresented in apprenticeships.

While the DAS continues to work to increase the number of women and ethnic minorities in apprenticeships, active women apprentices only numbered 2,852, or 5.3 percent, of all active apprentices in California as of 2014 (Figure 7).

Figure 7: Percent of Women as Active Apprentices in California

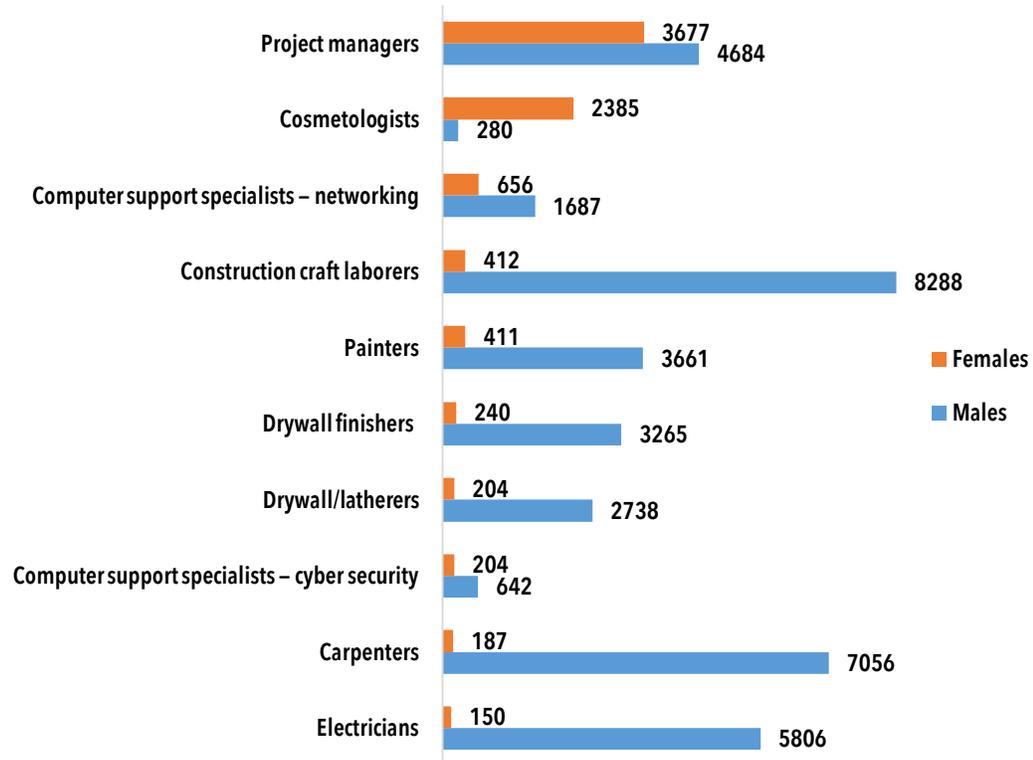


Women are also underrepresented in employment for the occupations trained by San Diego apprenticeship programs. Within San Diego County’s apprenticeable occupations, the top ten occupations employing females as of 2016 include project managers, cosmetologists, computer

³² sdmiramar.edu/news/articles/12516

support specialists – networking, construction craft laborers, painters, drywall finishers, drywall/latherers, computer support specialists – cybersecurity, carpenters and electricians (Figure 8).³³

Figure 8: Top Ten Occupations Trained by San Diego Apprenticeships with Female Workers in 2016



More pre-apprenticeships should increase diversity in traditional apprenticeships (e.g., construction trades), aimed at preparing female apprentices should be developed. Participating in a pre-apprenticeship may be a good option for women who may be uncertain if an apprenticeship program is the right fit for them. Studies by Westat (2003) and Mathematica Policy Research (2012) have shown the benefits of pre-apprenticeship programs in preparing women to successfully complete apprenticeships.³⁴ In a more recent example, Cerritos College in Norwalk and the Field Ironworker Apprenticeship and Training Center (FIATC) piloted the pre-apprenticeship program, Industry Preparation Program (IPP) to prepare prospective apprentices before they applied for registered apprenticeship programs. Pre-apprentices who completed IPP had a 80 percent success rate in being placed in an DAS-approved field ironworker registered apprenticeship.³⁵

In addition to pre-apprenticeships, general promotion of apprenticeship programs to increase awareness is instrumental in expanding diversity in apprentices. Located in California, Tradeswomen, Inc.—one of the oldest tradeswomen organizations in the country—partnered with the State Building and Construction Trades Council to host an annual “Women Building California” conference, which was so successful that it became a national event, renamed as “Women Building the Nation” conference. Similarly, nonprofits or other organizations that promote women to become apprentices or

³³ For more occupations broken down by male and female workers, view Appendix B – Methodology.

³⁴ womensenews.org/2015/12/pre-apprentice-programs-can-break-open-jobs-for-women

³⁵ dir.ca.gov/CAC/ReportsPublications/CACNewsletter3rdQuarter2016.pdf

tradeswomen have a number of resources that career counselors and educators can reference. For example, Women in Non-Traditional Employment Roles (WINTER) has prepared young women to for apprenticeships for over 20 years in Southern California and has programs for both youth and adults.³⁶

To increase the number of women and underrepresented ethnicities in apprenticeships, workforce development professionals, educators, career counselors and community leaders must work together to educate and promote the benefits and career opportunities of apprenticeship programs.

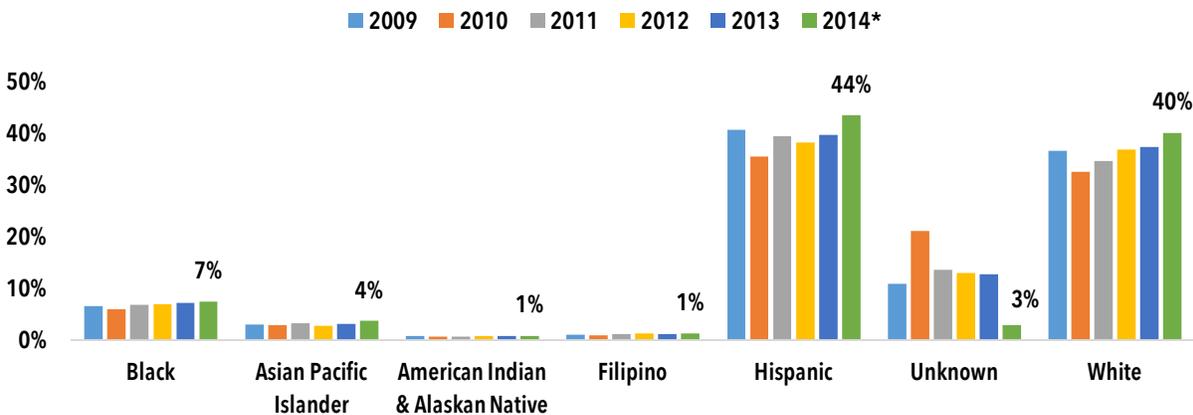
There is an opportunity to promote apprenticeships to ethnic minorities and educate underrepresented populations about the benefits of apprenticeships. Minority populations consistently represent more than 55 percent of all apprentices in California between 2010 and 2014 (Figure 9).

Figure 9: Apprentices in California by Population

	2010	2011	2012	2013	2014
Non-minority	19,627	18,349	19,907	20,204	21,440
Minority	27,705 (59%)	27,193 (60%)	27,036 (58%)	26,904 (56%)	30,365 (59%)
Women	3,973 (6.6%)	3,449 (6.5%)	3,342 (6.2%)	3,302 (6.1%)	2,852 (5.3%)
Total Apprentices	60,060	52,763	53,951	55,280	53,366

However, within the minority group Hispanic populations tend to dominate as active apprentices while the African American, Asian Pacific Islander, American Indian & Alaskan Native, and Filipino populations consistently make up less than 15 percent of all apprentices in California (Figure 10).

Figure 10: Active Minority Apprentices by Ethnic Group in California

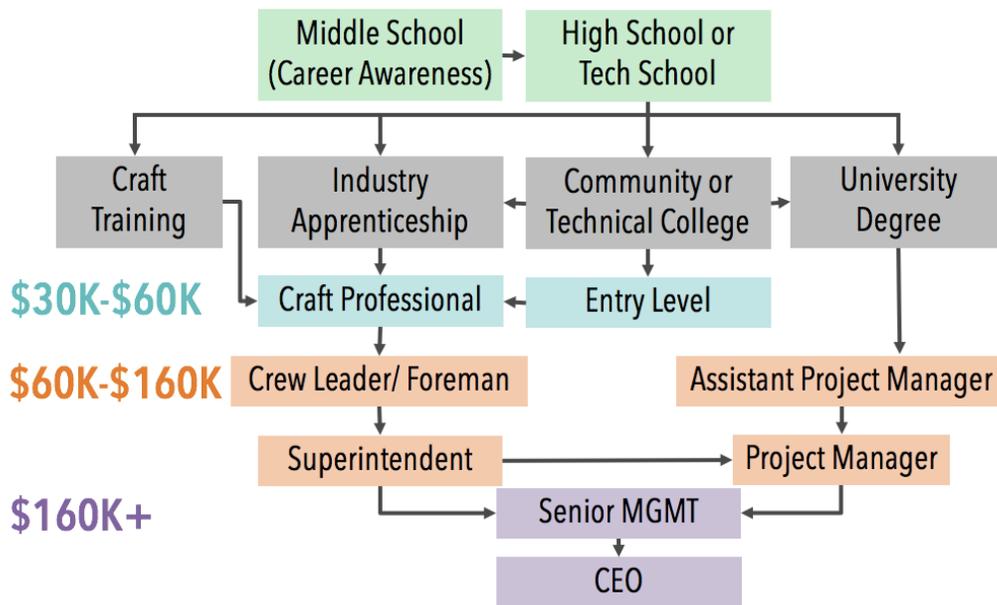


To increase these numbers, promotion of apprenticeships and their career opportunities is key. Apprenticeships are appealing for a number of reasons, but perhaps the greatest appeal is that apprentices earn wages and receive training at no cost to them. Apprenticeship programs have built-in career ladders; apprentices earn incremental increases in their wages as they become more proficient

³⁶ winterwomen.org

in their profession. This is a logical solution for job seekers who need to support themselves or their families financially and would typically prioritize holding a lower-paying job over pursuing training for a career-driven position. U.S. DOL Secretary Thomas Perez calls apprenticeships the “other college”³⁷ for a reason: Whether a student or job seeker begins his or her career path at a community college, four-year university or apprenticeship, the resulting career and pay levels are comparable (Figure 11). Career counselors and educators can assess students’ interests and recommend apprenticeships after high school when appropriate.

Figure 11: Apprenticeship and Education Career Pathways³⁸



Apprenticeships often leading to similar, if not better, career outcomes due to the combination of work experience and classroom training. For students and job seekers interested in exploring apprenticeship programs and their career pathways, career counselors and educators could point them to resources such as Build Your Future.³⁹ Build Your Future provides resources for students, job seekers, career counselors and educators to learn more about apprenticeship programs, including but not limited to, videos that demonstrate a day-in-a-life of an apprentice or a craft professional.

Career counselors, educators and workforce development professionals should train job seekers and students how to research and assess pre-apprenticeships and registered apprenticeships before applying for a program.

As previously mentioned, not all apprenticeships programs are registered or regulated by a government body. Any company can start an “apprenticeship program” and have a recently hired employee job shadow an existing worker or supervisor. Therefore, it is important that students and job seekers verify that the apprenticeship program is indeed registered with the DAS to ensure the protections and quality of training that come with registered apprenticeships. Similarly, pre-

³⁷ wdel.com/story/77504-us-labor-secretary-apprenticeship-is-the-other-college-except-without-the-debt

³⁸ BuildYourFuture.org and Associated Builders and Contractors

³⁹ byf.org

apprenticeships must also be vetted before a job seeker or student applies for the program. If there is no partnership or connection between the pre-apprenticeship and a registered apprenticeship, then the program participants will not necessarily be prepared or qualified for advancement into a registered apprenticeship program.

A career counselor, educator or workforce development professional can advise a prospective apprentice or applicant to conduct the following steps recommended by DAS when applying for apprenticeship programs—not necessarily in this exact order:⁴⁰

1. Select an occupation for which you have an aptitude or some previous experience and the physical ability to perform
2. Find out if you meet the minimum qualifications for that occupation or apprenticeship program
3. Decide whether you can work under the required job conditions, some of which may be hazardous, dirty, uncomfortable or otherwise unpleasant
4. Apply for an apprenticeship listed on the DAS website: dir.ca.gov/databases/das/aigstart.asp
5. Find employment with a firm which participates in an apprenticeship program directly if necessary
6. Take aptitude or other tests whenever required or applicable
7. Determine whether or not you are sufficiently interested in the occupation to wait for an opening or whether you should seek other employment for apprenticeships that have a substantial waiting list of applicants

Questions that job seekers and students can obtain answers to before applying for a certain pre-apprenticeship or apprenticeship program, include, but are not limited to:

- Is the program registered and listed on the DAS website?
- Does the program provide accreditation or college credit through a LEA?
- What is the program's graduation rate?
- Does the program have insurance?
- What kind of preparation or pre-requisites does the apprenticeship program require?

Career counselors, educators and workforce development professionals should prepare students and job seekers interested in apprenticeship programs for the rigorous application process.

Because apprenticeship programs provide both classroom instruction and employment at no cost to the apprentice, the selection process for an apprenticeship program may be very rigorous. For apprenticeship programs such as International Brotherhood of Electrical Workers (IBEW) Local 569,⁴¹ the waiting lists for an application to be accepted into an apprenticeship program have a wait as long as two years. Job seekers and students must be aware of the application process, which includes examinations and interviews. The San Diego County Building and Construction Trades Council produced a guide on the requirements and pre-requisites for construction trade apprenticeships that prospective apprentices could reference before applying to a program.⁴²

⁴⁰ dir.ca.gov/databases/das/descOfAppr.html

⁴¹ ibew569.org

⁴² sdbuildingtrades.com/wp-content/uploads/2015/02/SDBTC-CPI-Construction-Booklet.pdf

Increase apprenticeships in industry sectors that are not traditionally known to have apprenticeship programs such as ICT, Health Care and Life Sciences, and apprenticeships for experienced professionals.

San Diego County would benefit from developing apprenticeship programs in industry sectors that are not traditionally known for apprenticeships. As previously mentioned, San Diego created Life Sciences and ICT apprenticeships at Miramar College and A-DA, respectively, and could continue to develop more apprenticeships in non-traditional apprenticeship industries.

The U.S. DOL awarded more than \$90 million in funding support, develop and implement apprenticeship expansion across the nation, with the intent to release more funding for apprenticeships.⁴³ These special grants are opportunities that San Diego employers, educators, trainers and workforce development professionals could partner up with to apply to and create non-traditional apprenticeship programs, increasing our current Life Sciences and ICT apprenticeships or expanding into Health Care apprenticeships. Nationally, the Health Care industry sector faces a skilled worker shortage while Health Care occupations continue to increase.⁴⁴ This shortage of workers prompted the creation of 40 apprenticeship programs throughout the U.S. One of those programs includes an apprenticeship program developed and piloted by CVS in Detroit. Apart from creating this program CVS also developed an apprenticeship ladder for pharmacy technicians that provides a career pathway to becoming a pharmacist. The apprentice has the option to two- and four-year academic programs. The program has also been replicated in Georgia, Illinois, Indiana and Texas. CVS's goal is to have the apprenticeship program available in all CVS stores.⁴⁵ These are just some examples of apprenticeships that could be developed in San Diego's other Priority Sectors.⁴⁶

Additionally, not all industries would benefit from an apprenticeship model that is similar to the construction trades. For experienced professionals, apprenticeship programs such as Rx Research Services and Miramar College's Life Sciences apprenticeship is a reliable model. The majority of apprenticeships in the construction trades prepare apprentices for entry-level positions. Veterans, dislocated workers or other job seekers with work experience could use the skills developed in their former employment and expand those skills in an apprenticeship program for high-skilled professions such as regulatory compliance associations or quality control technicians.

Proponents of apprenticeship programs and workforce development professionals should walk employers through the steps of an apprenticeship program.

After being signed into law in 2012, AB 554 mandates that registered apprenticeship programs, Workforce Development Boards and community colleges work together ensure the delivery of registered apprenticeships and pre-apprenticeship training.⁴⁷ To create an apprenticeship program, prospective providers should first contact DAS consultants who guides employers and providers through the entire process. San Diego County's DAS consultant is currently Victor Rodriguez whose contact information can be found at dir.ca.gov/das/das_offices.htm. Proponents of apprenticeship programs can direct employers to DAS and refer to them to the DAS guide for creating an apprenticeship program in five basic steps:

⁴³ dol.gov/featured/apprenticeship/grants

⁴⁴ doleta.gov/oa/pdf/apprenticeship_build_healthcare_paths.pdf

⁴⁵ doleta.gov/oa/pdf/apprenticeship_build_healthcare_paths.pdf

⁴⁶ SDWP's Priority Sectors include Advanced Manufacturing, Health Care, Information and Communication Technologies, Life Sciences and Clean Energy. workforce.org/reports

⁴⁷ dir.ca.gov/CAC/ReportsPublications/CACNewsletter3rdQuarter2016.pdf

- Step 1. **Define the occupation to be trained in an apprenticeship program:** Whether the company is a large or small business, an apprenticeship can be developed on behalf of a single employer, an association of employers, or a jointly administered program by labor and management. The business defines the occupation, its requirements and processes that apprentices must undergo to master the trade.
- Step 2: **Determine essential job skills:** Employers that sponsor an apprenticeship program must define the skill sets and required duties that apprentices or trainees are expected to develop during their on-the-job training. Apprentices need a steady stream of employment in order to gain the experience necessary to master their craft and obtain future employment. This standardization clarifies employers' expectations of the essential job skills that apprentices must master upon completion of training.
- Step 3: **Identify educational partners.** The local DAS consultant will work with companies to determine the Local Educational Agency that approves the apprenticeship program's classroom curriculum. LEAs can be community colleges, adult schools and technical schools. The post-secondary classroom instruction will help the apprentices learn the theories to reinforce their on-the-job training. DAS recommends 144 hours of classroom instruction per year; however, employers have discretion on classroom content and duration based on their industry needs.
- Step 4: **Establish program standards.** Employers or apprenticeship providers must set the apprenticeship standards for the program, which sets the foundation for the apprenticeship. The standards define and establish the apprenticeship program with the State of California. The local DAS consultant will help employers developed the standards for the apprenticeship and ensure that the prospective apprenticeship program follows applicable laws, rules and regulations.
- Step 5: **Submit for approval.** The local DAS consultant helps with the training program development and paperwork submission. The DAS consultant helps facilitate program development, design apprenticeship programs, organize its components, facilitates recruitment and provide direction with state laws, rules and regulations. This service is free to registered apprenticeship programs. Employers new to apprenticeship with occupations parallel to existing apprenticeship programs should consider becoming a signatory employer approved to train for existing apprenticeship programs.

Apprenticeship regulatory agencies should reduce the complexities in the process for employers or prospective providers to develop and participate in both state and federal registered apprenticeships programs.

As previously mentioned, apprenticeship programs must meet the national standards for registration with the U.S. DOL or federally recognized State Apprenticeship Agencies to qualify as a registered apprenticeship program. However, In the State of California, the DAS is not a federally recognized State Apprenticeship Agency. While DAS oversees the administration, monitoring and implementation of California's apprenticeship law DAS-registered apprenticeship programs are not necessarily registered with the DOL, the federal agency that governs apprenticeship law for the nation. Prospective apprenticeship providers must meet both state and federal requirements and be recognized by both DAS and DOL in order to be registered apprenticeships for both California and the United States. In other words, even if an apprenticeship program is recognized as a registered apprenticeship with DAS, if that apprenticeship program does not register with the DOL, then it is not recognized across the other states. For employers and prospective apprenticeship providers, this study references a case study of a recently established apprenticeship program by Able-Disabled

Advocacy (Appendix C). This case study explains the differences between a state and a federally registered apprenticeship program, and how to navigate the process of getting an apprenticeship program registered for DOL and DAS.

Prospective apprenticeship providers should understand the difference between DAS apprenticeable occupations and DOL apprenticeable programs.

Participating in apprenticeship programs have a variety of benefits, however, developing apprenticeship programs is no simple task. This understanding makes a difference between successfully registering an apprenticeship program in a timely manner and developing an apprenticeship program that would not be recognized by the federal or state apprenticeship agency. If the apprenticeship trains for a profession that DOL does not consider an apprenticeable occupation, DOL will not recognize that program despite DAS's recognition. For example, DAS recognizes A-DA's project management apprenticeship program, however DOL does not recognize the training because project manager is not a DOL apprenticeable occupation. However, DAS and DOL recognize A-DA's apprenticeship training for computer support specialists because both state and federal agencies identify the profession to be an apprenticeable occupation. After determining which professions are apprenticeable occupations by DAS and DOL, a prospective apprenticeship provider should register the training program with the agency. To find out DOL apprenticeable occupations, visit: doleta.gov/oa/occupations.cfm.

APPENDIX A – APPRENTICESHIPS IN SAN DIEGO COUNTY

The following list includes registered apprenticeship programs listed on the Division of Industrial Relations website, dir.ca.gov/databases/das/aigstart.asp, as of October 2016.

DAS Occupation	Committee Name	Address	Zip	Phone
Air conditioning and refrigeration mechanic	San Diego & Imperial Counties Pipe Trades Joint Apprenticeship Committee (JAC)	6225 Federal Blvd.	92114	(619) 262-7589
Arson & bomb investigator	California Fire Fighter JAC	10440 Black Mountain Road	92126	(916) 648-1717
Barber	Tnn Beauty, Barbering, Cosmetology & Makeup Artistry Unilateral Apprenticeship Committee (UAC)	8500 La Mesa Blvd	91942	(858) 864-8763
Bricklayer/stonemason	San Diego & Imperial Counties Bricklayers & Stone Masons Joint Apprenticeship and Training Committee (JATC)	P.O. Box 710906	92171	(619) 429-2841
Bridge, structural, ornamental and reinforcing ironworker	International Assoc. Of Bridge, Structural, Ornamental & Reinforcing Ironworkers Local Union 229 JATC	3888 Beech Street	92105	(858) 505-9414
Carpenter	Innercity Community UAC	6125 Imperial Ave	92114	(619) 263-9791
Carpenter	San Diego Associated General Contractors JAC	P.O. Box 927870	92192	(858) 558-0739
Carpenter	Southern California Carpentry JATC (San Diego)	8595 Miralani Drive	92126	(858) 621-2667
Carpet, linoleum & resilient floor layer	San Diego Carpet, Linoleum & Floor Covering Industries JAC	8250 Ronson Road	92111	(858) 874-8519
Cement mason	San Diego Associated General Contractors JAC	P.O. Box 927870	92192	(858) 558-0739
Cement mason	San Diego County Cement Masons JAC	1807 Robinson Avenue Suite 206	92103	(626) 258-4075
Computer support specialist — cyber security	Able-Disabled Advocacy UAC	4284 El Cajon Blvd Suite 110	92106	(619) 231-5990
Computer support specialist/help desk — networking	Able-Disabled Advocacy UAC	4283 El Cajon Blvd Suite 110	92105	(619) 231-5990
Construction craft laborer	Associated General Contractors Of America, San Diego Chapter	P.O. Box 927870	92192	(858) 558-0739
Construction equipment operator	Associated General Contractors Of San Diego, Inc. Construction Equipment Operator JAC	P.O. Box 927871	92193	(858) 558-0740
Cosmetologist	Tnn Beauty, Barbering, Cosmetology & Makeup Artistry UAC	8500 La Mesa Blvd	91942	(858) 864-8763
Cosmetologist	San Diego Cosmetology Apprenticeship Committee	P.O. Box 28353	92128	(858) 613-7788
Drywall finisher (taper)	San Diego Associated General Contractors JAC	P.O. Box 927870	92192	(858) 558-0739

DAS Occupation	Committee Name	Address	Zip	Phone
Drywall/lather	Innercity Community UAC	6125 Imperial Ave	92114	(619) 263-9791
Drywall/lather	San Diego Associated General Contractors JAC.	P.O. Box 927870	92192	(858) 558-0739
Electrician (inside wireman)	Associated Builders & Contractors of San Diego, Inc. Electrical UAC	13825 Kirkham Way	92064	(858) 513-4700
Electrician (inside wireman)	San Diego Electrical JAYC	4675 Viewridge Avenue	92123	
Electronic systems technician (sound technician)	Associated Builders & Contractors Of San Diego, Inc., Electronic Systems Technician (Sound Tech.)	13825 Kirkham Way	92064	(858) 513-4700
Glazier	San Diego & Imperial Counties Glaziers JAC	8250 Ronson Rd	92111	(858) 874-8519
Heating, ventilation, air conditioning worker	Associated Builders And Contractors Of San Diego, Inc. Heating, Ventilation, Air Conditioning UAC	13825 Kirkham Way	92064	(858) 513-4700
Makeup artists, theatrical and performance Painter	Tnn Beauty, Barbering, Cosmetology & Makeup Artistry UAC	8500 La Mesa Blvd	91942	(858) 864-8763
	San Diego Associated General Contractors JAC	P.O. Box 927870	92192	(858) 558-0739
Pipefitter/steamfitter	Associated Builders & Contractors Of San Diego, Inc. Plumbing / Pipefitting UAC	13825 Kirkham Way	92064	(858) 513-4700
Plumber	Associated Builders & Contractors Of San Diego, Inc. Plumbing / Pipefitting UAC	13825 Kirkham Way	92064	(858) 513-4700
Plumber	San Diego & Imperial Counties Pipe Traders JAC	6225 Federal Blvd.	92114	
Project management	Able-Disabled Advocacy UAC	4283 El Cajon Blvd Suite 110	92105	(619) 231-5990
Reinforcing ironworker	International Assoc. Of Bridge, Structural, Ornamental & Reinforcing Ironworkers Local Union 229 JATC	3888 Beech Street	92105	(858) 505-9414
Residential wireman	San Diego Electrical JATC	4675 Viewridge Avenue	92123	(858) 569-6633
Roofer & waterproofer	San Diego & Imperial Counties Roofers & Waterproofer, JAC	3737 Camino Del Rio South #208	92108	(619) 516-0192
Sheet metal worker	Associated Builders & Contractors of San Diego, Inc. Sheet Metal UAC	13825 Kirkham Way	92064	(858) 513-4700
Sheet metal worker	San Diego Sheet Metal JAC	4596 Mission Gorge Place	92120	(619) 265-2758
Sound technician	San Diego County Sound Technicians JAC	4675 Viewridge Avenue	92123	(858) 569-6633
Steamfitter, industrial pipefitter, pipefitter	San Diego & Imperial Counties Pipe Trades JAC	6225 Federal Blvd		(619) 262-7589
Viticulture technician	San Diego Viticulture Technician Apprenticeship Unilateral Training Committee	900 Rancho San Diego Parkway		(619) 660-4262

APPENDIX B – METHODOLOGY

The San Diego Workforce Partnership (SDWP) research team analyzed apprenticeship listings on the Division of Apprenticeship Standards’ (DAS) website, analyzed secondary data, conducted a literature review and interviewed 10 apprenticeship program representatives to learn what could be done to expand apprenticeship programs in San Diego County.

DAS provides individual profiles of each registered apprenticeship program throughout California. SDWP manually transferred each individual profile into a database to determine which registered apprenticeship programs had addresses in San Diego County. After confirmation with DAS, SDWP found 469 registered apprenticeships in California, 141 apprenticeships that train for San Diego program sponsors and 39 programs that are physically located in San Diego County.



To determine which employment numbers for each apprenticeable occupation, SDWP cross-referenced DAS’s listed occupation per profile with Standard Occupational Classification (SOC) codes. Federal statistical agencies use the SOC system to “classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.”⁴⁸ The following table compares each DAS occupation with the SOC code and title.

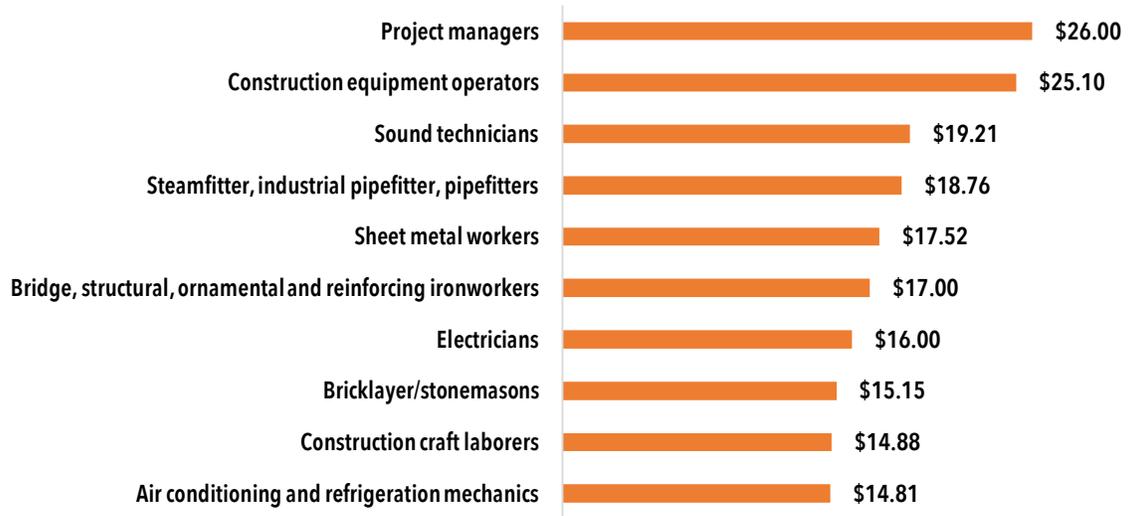
⁴⁸ bls.gov/soc

SOC and DAS Occupational Title Crosswalk

SOC Code	SOC Occupational Title	DAS Occupation
39-5091	Makeup artists, theatrical and performance	Makeup artists, theatrical and performance
51-9012	Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders	Viticulture technician
47-2031	Carpenters	Carpenter
33-2021	Fire inspector and investigator	Arson & bomb investigator
39-5011	Barbers	Barber
39-5012	Hairdressers, hairstylists and cosmetologists	Cosmetologist
15-1152	Computer network support specialists	Computer support specialist/help desk-networking
15-1122	Information security analyst	Computer support specialist-cyber security
13-1111	Management analysts	Project management
27-4011	Audio and video equipment technician	Sound technician
47-2040	Carpet, floor, and tile installers and finishers	Carpet, linoleum & resilient floor layer
47-2051	Cement masons and concrete finishers	Cement mason
47-2070	Construction equipment operator	Construction equipment operator
47-2061	Construction laborers	Construction craft laborer
47-2081	Drywall and ceiling tile installer	Drywall/lather
47-2080	Drywall installers, ceiling tile installers, and tapers	Drywall finisher (taper)
47-2111	Electricians	Electrician (inside wireman)
47-2111	Electricians	Residential wireman
49-2097	Electronic home entertainment equipment installers and repairers	Electronic systems technician (sound technician)
47-2121	Glaziers	Glazier
49-9021	Heating, air conditioning, and refrigeration mechanics and installers	Air conditioning and refrigeration mechanic
49-9021	Heating, air conditioning, and refrigeration mechanics and installers	Heating, ventilation, air conditioning worker
47-2140	Painters and paperhangers	Painter
47-2152	Plumbers, pipefitters, and steamfitters	Pipefitter/steamfitter
47-2152	Plumbers, pipefitters, and steamfitters	Plumber
47-2152	Plumbers, pipefitters, and steamfitters	Steamfitter, industrial pipefitter, pipefitter
47-2171	Reinforcing iron and rebar workers	Reinforcing ironworker
47-2181	Roofers	Roofer & waterproofer
47-2211	Sheet metal worker	Sheet metal worker
47-2022	Stonemasons	Bricklayer/stonemason
47-2221	Structural iron and steel workers	Bridge, structural, ornamental and reinforcing ironworker

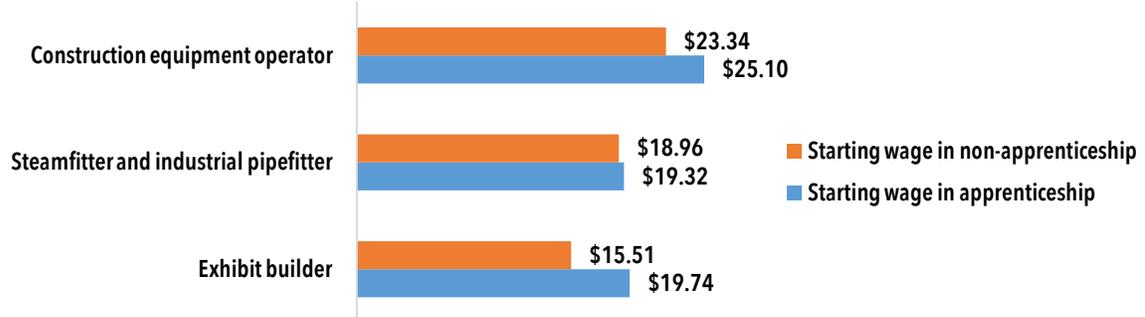
By translating DAS occupations into SOC codes, SDWP was then able to look up labor market data, including, but not limited to wages, employment and worker demographics. As a result, SDWP found the 25th percentile of hourly earnings per occupation as show below.

Top Starting Hourly Wages of Apprenticeship Programs Located in San Diego County



SDWP then compared the 25th percentile earnings with earnings listed on the DAS profiles to produce the following figure:

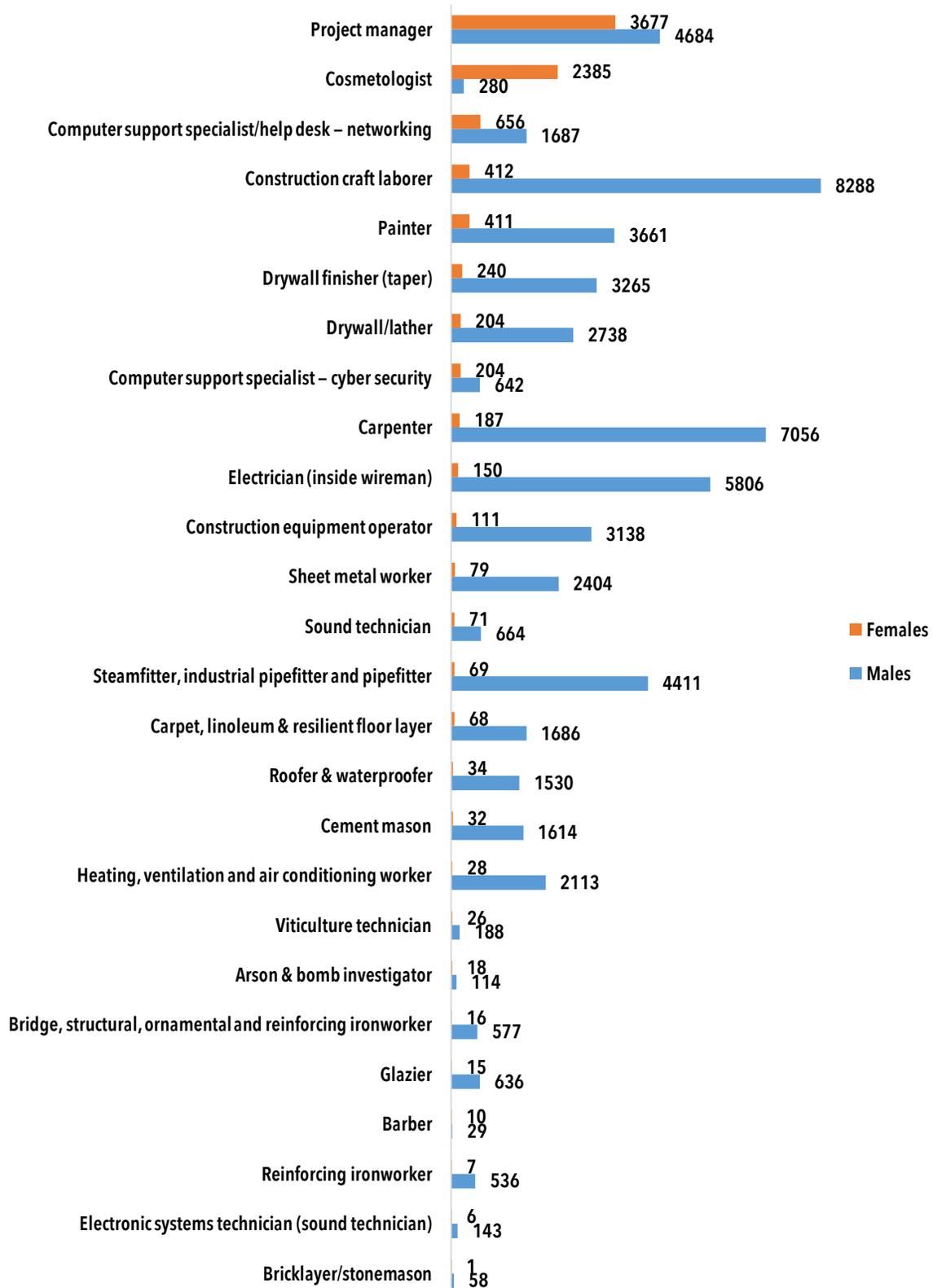
Sample Starting Wages in Non-Apprenticeship and Apprenticeship Occupations in San Diego County



To determine which apprenticeships belonged to which industry, SDWP grouped each occupational group into industries based on three-digit NAICS Codes and sorted the apprenticeship programs accordingly.

3-Digit NAICS Code	Industry	Total Apprenticeships by Industry
238	Specialty trade contractors	59
812	Personal and laundry services	26
903	Local government	17
621	Ambulatory health care services	6
484	Truck transportation	6
236	Construction of buildings	4
561	Administrative and support services	3
901	Federal government	3
237	Heavy and civil engineering construction	3
423	Merchant wholesalers, durable goods	2
562	Waste management and remediation services	2
721	Accommodation	1
312	Beverage and tobacco product manufacturing	1
111	Crop production	1
337	Furniture and related product manufacturing	1
712	Museums, historical sites, and similar institutions	1
532	Rental and leasing services	1
517	Telecommunications	1
336	Transportation equipment manufacturing	1
221	Utilities	1
321	Wood product manufacturing	1

SDWP also compared the number of females and males per occupation San Diego as shown below.



APPENDIX C – STARTING AN APPRENTICESHIP: ABLE-DISABLED ADVOCACY CASE STUDY

SDWP’s partners at Able-Disabled Advocacy (A-DA) recently registered their apprenticeship program with the Division of Apprenticeship Standards and the U.S. Department of Labor (DOL). As a relatively new apprenticeship program, A-DA crafted this guide for navigating the registration process to advise future employers or apprenticeship providers in San Diego County on lessons learned.

Starting an Apprenticeship Program in San Diego County

For those who want to begin a registered apprenticeship program, conducting some research is a good first step. DOL has an apprenticeship toolkit booklet that provides basic information and links for apprenticeship program development.⁴⁹ Prospective apprenticeship providers should read or review the following sections within the toolkit booklet:

- Registered Apprenticeship 101
- Testimonials about the value of apprenticeships
- Solutions for Industry Fact Sheet
- List of Apprenticeable Occupations
- Frequently Asked Questions on Registered Apprenticeships

Organizations and companies who wish to start an apprenticeship program can elect to register their apprenticeship programs with the California Division of Apprenticeship Standards (DAS) and/or — as in the case where an entity has received DOL funding for an apprenticeship program — with the DOL Office of Apprenticeship. This is due to the fact that DOL recognizes State Apprenticeship Agencies in other states, but not DAS in California at this time.

A best practice for developing a new apprenticeship program is to immediately identify the DAS consultant(s) who will provide guidance and information and prepare paperwork for submittal to the proper agency. San Diego has both a DAS office and a DOL apprenticeship consultant:

Victor Rodriguez	Arthur Page
Senior Apprenticeship Consultant	Apprenticeship & Training Representative
California Department of Industrial Relations	Department of Labor
Division of Apprenticeship Standards	Office of Apprenticeships
(619) 496-7114	(619) 557-5574
vrodriguez@dir.ca.gov	page.arthur@dol.gov

As the local consultants, they will come to a company’s office to meet with as often as necessary to develop the apprenticeship program. There is no charge for their services.

It may not be necessary to register with both DAS and DOL. In many instances, registration with DAS may be all that is needed. There are two key reasons to register with DAS. First, as an apprenticeship program in California, the apprenticeship training entity can earn state training subsidies for each hour of training that every apprentice attends. The current reimbursement rate is \$4.568 per hour; subsidies are administered through the apprenticeship’s Local Educational Agency. These subsidies can provide

⁴⁹ doleta.gov/oa/employers/apprenticeship_toolkit.pdf

a source of support to maintain the apprenticeship program over the long run after federal or state grant funding has been spent out.

Second, an apprenticeship program registered with DAS receives free marketing. The Department of Industrial Relations website has a listing of all the apprenticeships in the California by county. Job seekers searching for potential apprenticeships can find registered programs on this list with a link to the organizations' websites.

Apprenticeship Requirements

Employers or providers interested in creating an apprenticeship program must have answers the following questions:

- Who will be the apprenticeship sponsor? Will the sponsor be a single employer or multiple employers?
- How many hours of classroom training will the apprenticeship program require? (There is a minimum of 144 hours per year as required by law—the amended Shelley-Maloney Apprenticeship Labor Standards Act of 1939.)
- Will there be union involvement?
- Who will be the training provider? (A training provider may be a community college, an adult school, an organization that provides vocational training or an employer.)
- Will the training be conducted at a classroom or online?
- Who will the Local Educational Agency be? (DAS consultants can help find an LEA, which is required in an apprenticeship program to provide oversight of training curricula and practices.)

Developing Apprenticeship Standards

In creating an apprenticeship, apprenticeship standards must be established for the apprenticeship's occupation(s). The standards describe the occupation, job title(s) used for those jobs, and the training outline for both the training component as well as the work experience component (referred to as Work Processes by DOL). There may be existing standards already in place, which will expedite the review process. O*NET online (onetonline.org) has a wealth of information on occupations. O*NET's standards could be tailored to the apprenticeship program and customized based on employer feedback. An O*NET code will be required to submit paperwork for the apprenticeship standards. Research on standards can be conducted online and DAS consultants are available as an additional resource. Once a prospective apprenticeship's standards are submitted to the state or federal agency, the review process can take up to several months.

Challenges of the Duo System of DOL and DAS

If an apprenticeship program finds it necessary to obtain approvals from both DAS and DOL, the organization needs to be realistic and acknowledge that it will take more time and effort. The format for submission of the standards is slightly different for each agency. There is duplicative data entry once the apprenticeship standards are established. Employers will complete two sets of documents for both DAS and DOL, and there are differences in the documents' language. For DOL apprenticeships, the apprenticeships do not start until the individual is actually hired by the employer. Front-loaded training must be considered pre-apprenticeship training.

In California, a trainee can be considered an apprentice once he/she is engaged in either the training or the paid work experience. For programs with front-loaded training, in order to take advantage of apprenticeship training subsidies, it would be prudent to enroll individuals into California apprenticeships as soon as the trainees start. Are those individuals considered apprentices or pre-apprentices? They can be, in fact, both at the same. Apprenticeship program staff members spend time explaining these issues. Because of these challenges, there is some movement to consider the question of re-recognition by DOL of California's state apprenticeship agency and the California Apprenticeship Council has set up an ad hoc committee to consider the question.

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Edited by SDWP research team

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- Cindy Lennon — Able-Disabled Advocacy
- Pete Saucedo — Associated General Contractors Apprenticeship Trust
- Sandra Slivka and Heather Holmes — San Diego Miramar College
- Rosemarie Christopher — Rx Research Services
- Patrick Knighton — San Diego Electrical Training Center
- Katie Hansen — Associated Builders and Contractors, Inc.

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