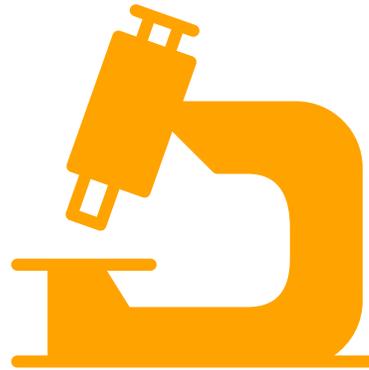


Empathetic Patient Care Coordination:

A Case Study of the Navigator Apprenticeship Program

A BRIEFING PAPER FOR THE CALIFORNIA
APPRENTICESHIP INITIATIVE EVALUATION



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About This Case Study

This case study is part of SPR's evaluation of the California Apprenticeship Initiative. The evaluation includes an additional three case studies, an apprenticeship brief, and a pre-apprenticeship brief, which can be found at <https://caihub.foundationccc.org/Research-and-Reports>

Care Navigator Apprenticeship

Exhibit 1. Grantee Program Overview

Grantee Name:

**Los Angeles Trade
Technical College &
Worker Education
and Resource Center**

Grantee Year:

2016

Program Name:

**Care Navigator
Apprenticeship
Program**

Sector:

Health Care

Occupations:

**Community Health
Worker**

**Apprentices as of
June 2018:**

18

Employer Partners:

**L.A. Care Health Plan
and participating
clinics**



Introduction

Community colleges are increasingly partnering with employers to offer apprenticeships—a model that combines on-the-job training with classroom instruction—in part because national surveys indicate that employers prefer job candidates with a combination of relevant work experience and education.¹ Approximately 21,000 organizations in the United States rely on apprenticeships to train workers in a range of occupations and sectors.² In recent years, firms new to the American apprenticeship model have partnered with community colleges to design programs for young people transitioning to work and adults looking for career opportunities. Siemens (in manufacturing) and Aon (in finance) are two examples.³

Apprenticeship is not a common approach to worker preparation and training in all industries, however. In 2016, 70 percent of registered apprenticeships in California were in the construction trades, even though this industry employs only 5 percent of the state’s workforce.⁴ By contrast, less than 1 percent of apprenticeships were in manufacturing, transportation, and healthcare occupations combined, even though approximately 18 percent of the state’s workers are employed in those industries.⁵ To help address this imbalance and establish apprenticeships in industries where they are less common—especially those identified as priorities for economic growth—in 2015 the California state legislature and governor created the ongoing California Apprenticeship Initiative (CAI) grant program.

Exhibit 2. What is a Registered Apprenticeship?

A California registered apprenticeship is characterized by five main components, each with an associated quality standard:



Programs provide both on-the-job-training and job-related classroom instruction; the classroom curriculum is critiqued and approved by a local education agency.



Participants are paid by the employer during the apprenticeship, and compensation follows wage progression scales.



On-the-job training is conducted in a work setting with the guidance of a more senior employee.



Programs meet California's minimum hours for registration: 144 hours of classroom instruction and 2,000 hours of on-the-job training.



Participants who complete the program receive an industry-recognized credential.

Sources:

U.S. DOL
(<https://www.dol.gov/featured/apprenticeship/faqs>);
California DAS
(<https://extranet.cccco.edu/Portals/1/WED/Apprenticeship%20Initiative/RFA1/Frequently-Asked-Questions-Update-2.pdf>).

Between 2016 and 2018, CAI invested a total of \$27.5 million to create new apprenticeships in the state. The California Community Colleges Chancellor's Office (Chancellor's Office) is leading CAI and has awarded 40 grants to community colleges and their partners to create new programs.⁶ One of the grants was awarded to the Worker Education and Resource Center (WERC) and Los Angeles Trade Technical College (LATTC) to support the creation of Care Navigator apprenticeship program. WERC, which has extensive experience working with health care employers, served as the backbone organization⁷ in creating the apprenticeship program and continues to operate the program.⁸ LATTC reviewed and approved the curriculum.

This case study describes the development of the Care Navigator apprenticeship program including why the partners chose an apprenticeship model to meet their training needs, how the program was developed and structured, and what apprentices and employers report about their experiences in the program. It concludes with a discussion of the program's sustainability. The methodology for how the study team selected case study sites and gathered data from them is described in Appendix A.

Exhibit 3. Case Study Highlights

- **Employer Engagement:** *WERC identified its primary employer partner by inviting its extensive network of industry contacts to several employer convenings, where they engaged them in conversations about their skills needs and the apprenticeship model.* At the convenings, WERC learned about health care employers' skill and occupational needs. Division of Apprenticeship Standards and U.S. Department of Labor representatives were also at the convenings to explain the apprenticeship model and learn about industry needs.
- **Program Structure:** *The yearlong Care Navigator Apprenticeship program has concurrent classroom training and on-the-job training and the on-the-job training mentors participate in a half-day training to prepare them for the mentoring role.* Apprentices spend the first two weeks in classroom training and then begin their on-the-job training in the third week, with continued classroom training happening a few times a month for the remainder of the year.
- **Apprentice Recruitment, Selection, and Orientation:** *The program's multi-stage recruiting process helped WERC identify apprentices that were a good match with the participating clinics.* Each stage narrowed the applicant pool down to a more qualified group of candidates. The stages included a written application, a phone interview, an orientation, and final interview with the clinic. The orientation included screening tests, group discussions, and an in-person interview.
- **Apprentice Perspectives:** *Apprentices appreciated the combination of classroom training, on-the-job training, and mentoring.* As one apprentice described it, the "classroom setting definitely helped [me] prepare for the job. Alongside that, having first-hand experience on the site plays a crucial role to put into practice all of which we have learned." Apprentices also valued how mentors provided them with guidance about work tasks and shared industry wisdom they've learned over the years.
- **Employer Perspectives:** *Participating clinics appreciated the program because it helped them serve more patients with knowledgeable staff.* One of the clinic apprenticeship coordinators explained: "The apprentices were very well prepared, and more so than interns we've had, because the apprentices knew so much from the classroom training such as medical terminology and the importance of continued care."
- **Sustainability:** *The Care Navigator Apprenticeship program has continued beyond the grant period with continued support from LA HCP and other grant funds.* WERC program managers have also created a new Emergency Medical Technician apprenticeship program, which currently has enrolled 25 apprentices.

The Industry’s Need for Specially Trained Community Health Workers

WERC and LATTTC partnered with the L.A. Health Care Plan (LA HCP) and five community health clinics to create the Care Navigator (CN) apprenticeship program to address the need for community health workers trained to work within a medical team to address patients’ whole care needs.⁹ The number of complex care patients¹⁰ served by community health outpatient clinics in the Los Angeles region has grown rapidly since the federal Affordable Care Act was established, which has increased the clinics’ need for hiring community health workers to join their clinical care teams. Historically most community health workers were trained to work at community-based organizations on public health and environmental issues. Now there is a need for community health workers with experience working in a clinical environment and the skills to address the care coordination needs of complex care patients. These workers—called Care Navigators—provide critical assistance to clinics because they allow other clinical staff to spend less time on non-clinical work.

Why Did Partners Choose Apprenticeship?

The employer partners chose an apprenticeship model to train workers for the Care Navigator role for three primary reasons. First, the employer partners preferred the apprenticeship model because it combines classroom training with on-the-job training. WERC learned through its employer engagement (described in the next section) that health care providers like the idea of on-the-job (OJT) because classroom training alone is not enough to prepare candidates for the job. The combination of classroom and OJT gives apprentices an opportunity to apply what they learn in class on the job and learn practical skills from their mentor. Employer partners think this model is effective because the classroom training prepares apprentices with the knowledge they need for the job and the OJT component allows them to adapt that learning to the health care employers’ organizational culture and patient population. Second, this model enables employers to have a significant role in designing the program, from designing the OJT component to providing feedback about the classroom curriculum. Finally, employers chose the apprenticeship model because it allowed them to concurrently recruit and train workers for this newly emerging role.

What Industry Engagement Strategies Have Been Effective?

WERC found employer convenings to be an effective way of engaging local health care employers to hear their perspectives about their skill needs and apprenticeship. Prior to winning the CAI grant, WERC served as the LA County's Workforce Development Board Health Care Intermediary and held several employer convenings to learn about health care employers' labor force needs and to determine if the apprenticeship model would help meet these needs. In particular, WERC wanted to identify in-demand occupations that were conducive to a training format with classroom training and at least 2,000 hours of on-the-job training. WERC also invited US DOL Office of Apprenticeship and California Division of Apprenticeship Standards (DAS) representatives to its employer convenings to participate in the process and to hear employer feedback. US DOL and DAS representatives presented the apprenticeship model to employers, explaining the registration process and its value so that employers could consider the apprenticeship model as a training option. The convenings were supported by a California Workforce Development Board Accelerator grant.

Through the convenings, WERC learned that employers want to help define the competencies and skills taught in training programs for their industries. As described earlier, WERC also learned that health care employers like training that combines OJT and classroom training.

How is the Program Developed?

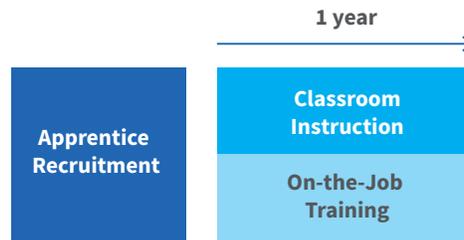
After one of these employer convenings, LA HCP approached WERC about starting an apprenticeship program. LA HCP was interested in using the apprenticeship model to adapt to the particular needs of primary care clinics who were working with complex care patients, a population that is often new to having health insurance since the passage of the Affordable Care Act. Together WERC and LA HCP selected five clinics, which would provide the OJT portion of the apprenticeship, from an applicant pool of about 50 clinics. There was a lot of interest in the program from clinics because of their need for Care Navigators to provide support for complex care patients.

WERC led the development of the program, which included working with DAS and employer partners to complete the apprenticeship registration process. WERC, which specializes in healthcare curriculum development, also created the curriculum. It did so by building on existing health worker training modules in its curriculum library using feedback from employers about the competencies needed by care navigators. LATTC, as the Local Educational Agency (LEA), then reviewed and approved the curriculum.

How Was the Program Structured?

As illustrated in Exhibit 4, the Care Navigator Apprenticeship program includes two phases: apprentice recruitment and the year-long apprenticeship program. The classroom instruction spans the whole program, while the OJT component begins in its third week.

Exhibit 4. Care Navigator Apprenticeship Program



Each of the program partners contribute to the program in various ways. WERC recruits the apprentices, delivers the classroom training, and provides training for the OJT component's mentors. It also serves as the employer of record, including handling administrative matters like processing payroll for the apprentices and the hiring process. The employer partners (the five participating clinics and LA HCP) support the OJT component and participate in the apprentice selection process. Each component, including the partner roles, are described in more detail below:

- **Apprentice Recruitment and Hiring:** WERC advertises the apprenticeship openings, reviews applications, oversees the selection process, and refers candidates to the employer. The selection and hiring process has several stages. First, WERC reviews the written applications and conducts phone interviews to identify qualified candidates who are invited to an orientation. At the orientation, candidates learn about the program and then go through a series of screening exercises. These include a written exercise, a computer-based assessment, and participation in peer-group discussions. They are also interviewed to screen for their capacity for health care service delivery and peer-based learning (i.e. receiving constructive feedback from their peers). The cohort of apprentices is then selected from the orientation group and WERC matches each of them to a clinic site by considering how their prior work experiences and interests overlap with the population served by each clinic. In the last stage, employer representatives from each clinic participate in the final interview for their apprentices before hiring them as apprentices.

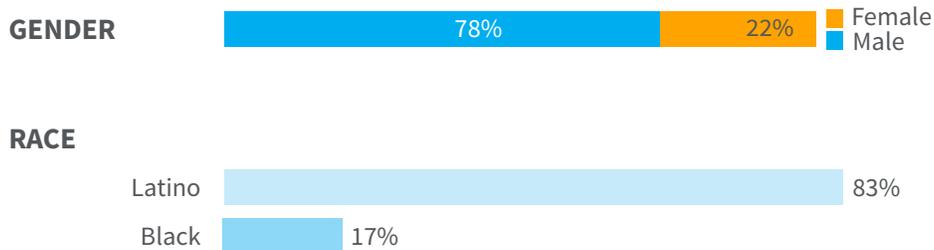
- **Classroom Instruction:** WERC provides the classroom instruction. This classroom instruction lasts approximately 150 hours and is mostly concurrent to the OJT, meaning that apprentices spend part of the week in classroom training and the remaining time in OJT. The approach works well because apprentices spend time learning a task in the classroom and then are better prepared to complete the task during their OJT. For example, during classroom training apprentices learn about the medical terminology that they will need during their OJT. At the beginning of the program there are two weeks of classroom training before the OJT component begins. After that, classroom training happens each month, with sessions occurring more frequently early in the program. For example, three days of classroom training a week is provided during the first months of the program, while only one day a week is provided during the latter months.
- **On-the-Job Training:** The clinics provide the OJT experience. Before working with patients on their own during OJT, apprentices shadow an OJT mentor (who is a more senior employee at the clinic). But even once apprentices begin to work on their own, the OJT mentor continues to provide guidance. LA HCP provides funding to cover the apprentices' wages during OJT.
- **Mentor Training:** Prior to the beginning OJT, there is a half day training at each clinic to prepare staff (administrators, human resource staff, OJT mentors) and the apprentices for that component. Throughout the remainder of the program, OJT mentors also attend a regular meeting led by WERC staff, where both can check in about program successes and challenges.

What Are the Results So Far?

Between July 2016, when the program began, and June 2018, the program served 18 registered apprentices. Of the 10 apprentices in the first cohort, 7 had completed the program as of February 2018.¹¹ One left before completing the program to accept a full-time position. Among the completers, 2 have been promoted to more senior positions at their clinics.

The 18 Care Navigator apprentices were predominantly Latino (83%) and female (78%). In comparison, 49 percent of all registered apprentices in California were Latino in 2018, while just 6.3 percent were female. The large difference in the percentage of women enrolled in the Care Navigator apprenticeship program versus in all California apprenticeship programs is likely because the majority (70%) of apprentices in California are employed in the construction trades, which tends to be a male dominated field, in contrast to the more female-dominated health care industry.^{12,13} Consequently, by expanding the apprenticeship model to new, less male-dominated industries and occupations, like care navigator, CAI is helping expand the gender diversity of those enrolled in apprenticeships overall.

Exhibit 5. Participant Demographics



Source: Division of Apprenticeship Standards, June 2018

APPRENTICE FEEDBACK

“

I really like how I am becoming resourceful and knowledgeable in ways to help patients. This program has been very useful to give me experience for the future of my career.”

The majority of Care Navigator apprentices thought that the apprenticeship program was very helpful in preparing them to work in community healthcare.¹⁴ As one apprentice described it, the combination of classroom training and on-the-job experience was crucial: “[the] classroom setting definitely helped [me] prepare for the job. Alongside that, having first-hand experience on the site plays a crucial role to put into practice all of which we have learned.” Apprentices explained that this combination of classroom training and work experience enhanced their skills in several ways:

- **Prepared them to work with patients.** Apprentices valued their OJT because it taught them how to work empathetically with patients, manage their patient load, and become more resourceful when working with patients.
- **Increased their knowledge of the health care industry.** Apprentices learned about software systems used in the healthcare field and how the role of the community health care worker has changed over time.
- **Improved their communication skills.** Apprentices indicated that participation in the program improved their communication skills by increasing their confidence in their public speaking abilities and giving them experience communicating with physicians.

- **Learned skills and industry insights from their mentor.** Several apprentices thought that the OJT mentor was very helpful in preparing them to work in this field. They described how their OJT mentor provided them with guidance about work tasks and shared wisdom from years of working in the field. One apprentice described the mentoring aspect as innovative because it makes the transition from training to work experience seamless, since the OJT mentor provides day-to-day training connected to the classroom training and is available throughout the apprenticeship to answer questions.

Respondents also provided some suggestions to improve the apprenticeship in the future. Apprentices expressed a desire for more training and time in the program. One participant suggested extending the program past a single year, while another apprentice recommended providing additional training and activities focused on health care best practices for community health care workers.

EMPLOYER FEEDBACK ABOUT THE PROGRAM

The five clinics have continued to participate in the apprenticeship program for a second year because it helped them serve more patients. They also appreciate the combination of OJT and classroom instruction because apprentices are prepared to apply what they have learned in class in a work setting.

An apprenticeship coordinator from one of these clinics noted three other primary ways her clinic benefitted from hosting two Care Navigator apprentices. First, her clinic needed additional Care Navigators and this program gave them a way to recruit and train them. Second, the apprentices were better prepared than interns they have had. As she described it “The apprentices were very well prepared, and more so than interns we’ve had, because the apprentices knew so much from the classroom training such as medical terminology and the importance of continued care. Part of someone’s success is what you invest in them to begin with.” Third, the apprentices have stayed on at the clinic, and both have been promoted to more senior positions (with more responsibility and higher pay) since completing their apprenticeships.

What’s Next?

The Care Navigator apprenticeship has continued beyond the completion of the CAI grant with continued support from LA HCP and the California Endowment. Additionally, apprentices from the first cohort are now journey-level¹⁵ and serve as peer coaches for the second cohort of apprentices. Peer coaches, having been through the program already, are generally available if apprentices need peer support (e.g. answering questions or just listening) and meet with them periodically to check-in.¹⁶

The main factors that helped WERC sustain its apprenticeship program were continued employer support and on-going support from partners. Recent contextual factors that are also expected to help grantees with sustainability are two legislative changes and the Chancellor’s Office’s Vision for Success. Appendix B describes how these contextual factors are expected to help with sustainability.

Building on their experience with the Care Navigator apprenticeship, WERC program managers have also created a new Emergency Medical Technician (EMT) apprenticeship program, which is registered with the U.S. DOL's Office of Apprenticeship and currently has 25 participating apprentices.

More broadly, WERC program managers have found the apprenticeship model to be an effective way to prepare frontline workers because employers help define the skills and competencies that need to be taught in the classroom during the program design phase and provide OJT guided by a mentor. These mentors help apprentices apply the skills they have learned in the classroom by sharing their insights, gained from years of experience, which helps apprentices become skilled professionals.

Appendix A: Methodology

THE CASE STUDY SELECTION PROCESS

SPR's evaluation team selected four grantees from the 2016 CAI cohort to feature in case studies—three apprenticeship grantees and one pre-apprenticeship grantee. The general goal of the three apprenticeship case studies was to illustrate how grantees identified employers interested in the apprenticeship model and worked with them to create new registered apprenticeship programs. The goal of the pre-apprenticeship case study was to illustrate the role of pre-apprenticeship programs in the apprenticeship landscape. The study team selected the four grantees from among the 24 in the 2016 CAI cohort using the following criteria:

- **Type of grantee.** We selected at least one grantee from each of the three types of CAI grants (New & Innovative, Accelerator, and Pre-Apprenticeship). New & Innovative grants are intended to support the creation of sustainable apprenticeship programs approved by DAS. Accelerator grants are intended to help grantees who are further along in the process and who already have employer partners interested in apprenticeship and/or have begun the DAS registration process to create sustainable apprenticeship programs. Pre-Apprenticeship grants are intended to create programs that prepare individuals for careers in occupations that utilize an apprenticeship training model, as well as to help diversify the pool of applicants for apprenticeship programs.
- **Successful implementation.** We selected grantees that were successful in implementing their programs. We considered an Accelerator or a New & Innovative grantee successful if it had employer partners secured early in the grant period. This enabled the grantee to begin implementing the programs sooner and allowed the study team to conduct a site visit to learn about the program during the grant period. We also considered the level of employer involvement and selected grantees where employers played an active role in the program design phase (e.g., curriculum development). For Pre-Apprenticeship (PA) grantees, we considered a grantee successful if it demonstrated a strong connection to a registered apprenticeship program. We also considered the extent to which PA programs were serving underrepresented populations. Data about the success of grantee implementation was collected through intake interviews conducted during the sixth month of the grant period.
- **Geographic variation.** We considered the geographic location of grantees to ensure representation from both rural and urban areas of California. This was a secondary selection criterion as compared to the type of grantee and grantee “success.”
- **College partner role.** We considered the extent and variety of partners involved in each program to ensure that some of the case studies would feature programs where a community college was conducting employer outreach and delivering the classroom training component. This criterion was intended to help us learn about the role of community colleges in program implementation.

Data Collection

Data for each case study was collected through site visits and a survey of program participants. A member of the CAI evaluation study team conducted a one-day site visit to each of the selected grantees. Each site visit included:

- Interviews with the program manager and program staff to learn about the program’s creation, structure, and implementation process, and
- Interviews with staff from partner organizations, including employer partners, apprenticeship mentors, and RA partners (in the case of PA grantees), to learn about their roles in the program and the implementation process.

In addition, focus groups or participant interviews were conducted during the case study site visits. The focus groups included all apprentices who attended the classroom training component on the day of the site visit. We also reviewed program documents (e.g., OJT checklists and the participant handbook) collected during the site visits.

The participant survey was distributed in person and by email. The response rate for each of the four surveys is provided in the table below. Because of the low response rate to the State College Community College District survey, results from the survey were not included in the pre-apprenticeship case study.

Grantee	Response Rate	Distributed
WERC & LA Trade Technical College	86% (=6/7)	in person
Columbia College	64% (=18/28)	in person
Mission College	35% (=14/40)	in person
State Center Community College District	6% (=3/53)	E-mail

Appendix B: Policy and System Changes Affecting Sustainability

Three recent changes at the state level should also help grantees with sustaining their apprenticeships (Exhibit B-1). First, a recent change to state law, brought about in part by the leaders of CAI, should help grantees sustain at least the classroom training component of their programs. Second, another change to state law amends the process for registering non-construction apprenticeships. The new process makes the DAS approval process more flexible and is expected to make it easier for grantees to register new programs and customize existing programs for new employers.

Third, at the community college system level, the recent development of the Chancellor's Office's *Vision for Success*,¹⁷ a strategic planning document for California's community college system, should also assist grantee programs with sustainability. This *Vision for Success* emphasizes the importance of student learning, curricular pathway options, preparing for in-demand jobs, and cross-sector partnerships, all of which provide a strategic planning framework that is complimentary to apprenticeship programs and so should make it more likely that the leadership of grantee colleges will be willing to continue their support of the programs developed under CAI.

Exhibit B-1. Key Changes in California’s Apprenticeship Policy

Two recent state-level legislative and policy changes aim to support the sustainability of apprenticeship programs. In June 2018, AB 1809 increased the reimbursement rate to colleges for courses that provide related supplemental instruction (RSI) to apprentices as a part of a registered apprenticeship program.¹⁸ Prior to the change, students in RSI were reimbursed at a lower rate than traditional college students for exactly the same instruction. The new legislation establishes parity and removes the financial disincentive for colleges to enroll apprentices in credit-bearing courses.

In September 2018, AB 235 amended the Labor Code to authorize a separate process for approval of non-construction apprenticeship programs. The change is designed to create flexibility for DAS to support the development of new programs that have struggled with the rules, registration procedures, and standards associated with the current process. For example, non-construction apprenticeship programs can now be time based, competency based, or a combination. Prior to the change completion of non-construction programs was time based (i.e. 2,000 hours of on-the-job learning and 144 hours of related classroom instruction). In addition, under the new legislation, DAS is authorized to create standards to register pre-apprenticeship programs that are connected to state-registered apprenticeship programs.

Chancellor’s Office’s *Vision for Success* and Apprenticeship

The *Vision for Success* document outlines several goals and commitments for the California community college system. These goals and commitments are aligned with apprenticeship programs in important ways:

Several *Vision for Success* goals compliment the goals of apprenticeships. For example, the first *Vision for Success* goal (increasing the percent of students who annually “acquire associates degrees, credentials, certificates, or specific skill sets that prepare them for an in-demand job.”) is defined broadly enough to capture apprenticeship certificates. Similarly, another *Vision for Success* goal¹⁹ that aims to increase the number of students who are employed in jobs related to their community college field of study, is well-aligned with apprenticeship programs.

The *Vision for Success* commitment to partnering across systems is achievable through community college apprenticeship programs. Apprenticeship programs where a public community college system and an employer and/or union collaborate to create an apprenticeship program exemplifies partnering across systems.

The *Vision for Success* commitment to focus on students’ end goals relies on guided pathways as an organizing framework, and apprenticeships enhance one of the key pillars of the framework—clear pathway options to employment. Apprenticeships diversify the curricular pathway options available to the students and apprenticeship pathways are designed with clear end goals (e.g. 2,000 hours of on-the-job training and 144 hours of related classroom instruction).

Endnotes

- 1 See Chronicle of Higher Education (2012), “The role of higher education in career development: Employer perceptions” (retrieved from http://www.chronicle.com/items/biz/pdf/Employers_Survey.pdf) and National Association of Colleges and Employers (2017, April 5), “Employers prefer candidates with work experience” (retrieved from <http://www.naceweb.org/talent-acquisition/candidate-selection/employers-prefer-candidates-with-work-experience/>).
- 2 According to Robert Lerman, Lauren Eyster, and Kate Chambers (2009), in *The Benefits and Challenges of Registered Apprenticeship: The Sponsors’ Perspective*, in 2006 there were 21,324 apprenticeship program sponsors across 38 states.
- 3 See Siemens (2015, August 12), “Siemens’ first class of U.S. apprentices graduates, national model for skills-based learning” (retrieved from <http://news.usa.siemens.biz/press-release/siemens-usa/siemens-first-class-us-apprentices-graduates-national-model-skills-based-l>) and Alexia Elejalde-Ruiz (2017, April 24), “Apprenticeship programs increasingly put workers on track for jobs in finance,” *Chicago Tribune* (retrieved from <http://www.chicagotribune.com/business/ct-aon-finance-apprenticeship-0425-biz-20170424-story.html>).
- 4 Registered apprenticeships are programs that have been approved by the US DOL or a state-level agency. In California, that state agency is the Department of Industrial Standards’ Division of Apprenticeship Standards. The federal and state approval process ensures that programs meet industry-level standards for OJT and corresponding classroom instruction.
- 5 See California Department of Industrial Relations (2016), *State of California Department of Industrial Relations Division of Apprenticeship Standards 2016 legislative report* (retrieved from <https://www.dir.ca.gov/DAS/reports/2016LegReport.pdf>), as well as internal statistics from DAS.

In December 2016, 4.6 percent of California’s workforce was employed in construction and 11 percent was employed in manufacturing and transportation and utilities combined (see [https://www.labormarketinfo.edd.ca.gov/file/indhist/cal\\$shws.xls](https://www.labormarketinfo.edd.ca.gov/file/indhist/cal$shws.xls)). In 2013, 7 percent of California’s workforce was employed in health care. See State of California Employment Development Department (2013), *Health Care in California* (retrieved from https://www.labormarketinfo.edd.ca.gov/SpecialReports/Health_Care_in_CA.pdf).
- 6 Among these 40 grants, 16 were awarded in 2016, 13 were awarded in 2017, and 11 were awarded in 2018.
- 7 “Backbone organization” is a term from the Collective Impact literature and refers to an organization that coordinates partnerships and other aspects of an initiative. Collective impact is an implementation approach based on the idea that a group of organizations coordinating their efforts can accomplish more than a single organization. https://ssir.org/articles/entry/collective_impact
- 8 WERC’s health care expertise is rooted in its origins. WERC was created through a partnership between Service Employees International Union Local 721 and the Los Angeles County Department of Health Services. The partnership includes employees at four hospitals and several other health centers and community clinics.
- 9 The State of California defines “whole care” as “as the coordination of health, behavioral health, and social services in a patient centered manner with the goals of improved health outcomes and more efficient and effective use of resource.” Accessed, October 2017, http://www.dhcs.ca.gov/provgovpart/Documents/Waiver%20Renewal/Workforce1_WPC2_JSI.pdf
- 10 Complex care patients are patients needing support for multiple health conditions.
- 11 Data obtained for the Division of Apprenticeship standards.
- 12 6% female apprentice statistic source: California Department of Industrial Relations. (2016). *State of California Department of Industrial Relations Division of Apprenticeship Standards: 2016 Legislative Report*. Retrieved from <https://www.dir.ca.gov/DAS/reports/2016LegReport.pdf>. Construction statistic--internal statistics from DAS.
- 13 2017 Current Population Survey data from the Bureau of Labor Statistic indicates that 75% of Healthcare practitioners and technicians are women, compared to 3% of Construction and extraction occupations. Retrieved from: <https://www.bls.gov/cps/cpsaat11.htm>.

- 14 Seven apprentices attended a focus group, and six of these individuals completed a survey. This finding comes from the survey.
- 15 After an apprentice successfully completes their apprenticeship they are considered journey-level and no longer has an OJT mentor.
- 16 The peer coaches are different than the OJT mentor. The OJT mentor is on site with the apprentices and interacts with apprentices daily, whereas peer coaches are not necessarily at the same clinic and interact with them less frequently.
- 17 Vision for Success: Strengthening the California Community Colleges to meet California's needs. Retrieved from: <http://californiacommunitycolleges.cccco.edu/portals/0/reports/vision-for-success.pdf>
- 18 See http://www.dof.ca.gov/budget/Trailer_Bill_Language/documents/ApprenticeshipPrograms-ClaimingFTES.pdf
- 19 Goal 4 summary: Increase the percent of exiting CTE students who report being employed in their field of study.