



CALIFORNIA WORKFORCE DEVELOPMENT BOARD
HEALTHWORKFORCE DEVELOPMENT COUNCIL



MEETING NOTICE

Wednesday, March 9, 2016
Time: 10:00 a.m. to 1:00 p.m.

Tim Rainey
Executive Director

Michael Rossi
Chair

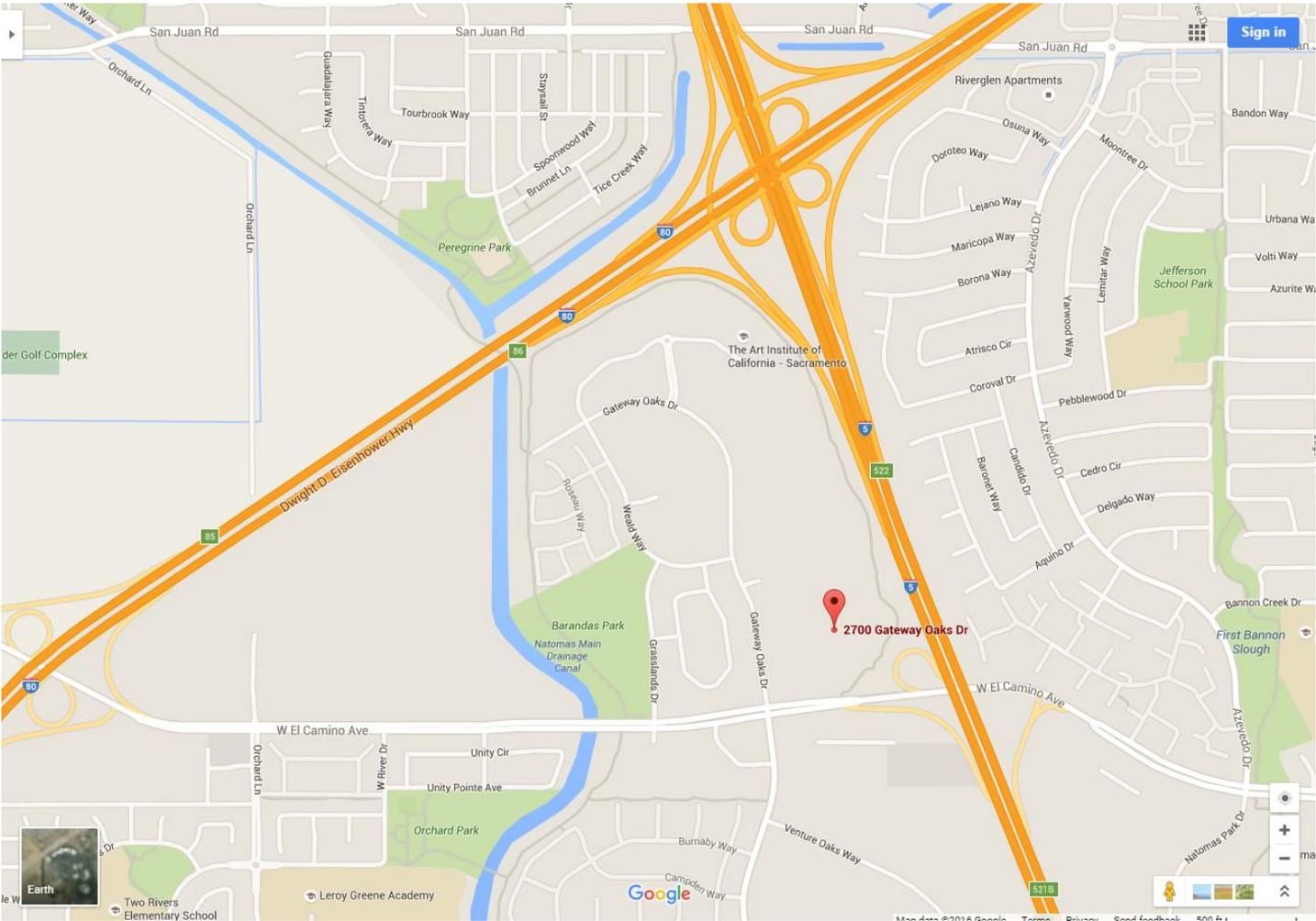
Edmund G. Brown, Jr.
Governor

Sutter Health, Center for Health Professions
2700 Gateway Oaks, First Floor (map attached)
Sacramento, CA 95833
(916) 924-7619

AGENDA

- 1. Welcome**
- 2. Chair/Executive Director/Agency Updates:** *Tim Rainey, Jim Suennen*
- 3. Facilitated Discussion: Role & Goals of the Health Workforce Development Council**
- 4. Updates**
- 5. Public Comment**

Meeting conclusion time is an estimate; meeting may end earlier subject to completion of agenda items and/or approved motion to adjourn. In order for the State Board to provide an opportunity for interested parties to speak at the public meetings, public comment may be limited. Written comments provided to the Committee must be made available to the public, in compliance with the Bagley-Keene Open Meeting Act, §11125.1, with copies available in sufficient supply. Individuals who require accommodations for their disabilities (including interpreters and alternate formats) are requested to contact the California Workforce Investment Board staff at (916) 657-1440 at least ten days prior to the meeting. TTY line: (916) 324-6523. Please visit the California Workforce Development Board website at <http://www.cwdb.ca.gov> or contact Robin Purdy for additional information. Meeting materials for the public will be available at the meeting location.



Health Workforce Development Council
October 8, 2015
10:00 a.m. – 2:00 p.m.
Meeting Summary

Workgroup members in attendance:

Jonathan Andrus <i>Fairchild Medical Center</i>	John Blossom, MD <i>California State University Fresno</i>	Dena Bullard <i>University of California of the President</i>
Julie Davis-Jaffe <i>Sacramento Employment and Training Agency</i>	Shanna Ezzell <i>California State Assembly</i>	Diane Factor <i>Worker Education and Resource Center</i>
Gary Gugelchuk <i>Western University of the Health Sciences</i>	Cathy Martin <i>California Hospital Association</i>	Rebecca Miller <i>SEIU-UHW</i>
Monica Morris <i>Kaiser Permanente</i>	Bob Redlo <i>Consultant</i>	Mary Renner <i>Central Valley Health Network</i>
Anette Smith-Dohring <i>Sutter Health, Sacramento Sierra Region</i>	Abby Snay <i>Jewish Vocational Services</i>	Jim Suennen <i>California Health and Human Services Agency</i>
J. Murphy for Sheila Thomas <i>The California State University, Office of the Chancellor</i>	Linda Zorn <i>CCCCO</i>	

I. Introduction and Welcome

Bob Redlo, Chair, welcomed everyone and thanked Council Members Anette Smith-Dohring of Sutter Health for hosting, and Linda Zorn from the Community College Chancellor's Office for providing lunch.

II. Chair/Executive Director/Agency Updates

Jim Suennen, Associate Secretary, California Health and Human Services Agency, and Sarah White, Deputy Director, California Workforce Development Board, provided agency updates.

III. Discussion Items

- a. **Future Role of the Health Workforce Development Council**
Sarah White, CWDB, reviewed the new structure of the State Board committees, and the need for close alignment between the working groups on WIOA planning, skills and credentials, and health care.
- b. **Progress Report AB 1797**
Rebecca Hanson, Executive Director, SEIU UHW-West & Joint Employer Education Fund, presented an outline of the AB 1797 report on health care apprenticeship.
- c. **Workforce Issues in Healthcare**
Bonnie Preston, Regional Outreach Coordinator, Region IX, US Department of Health and Human Services, presented federal perspectives on healthcare workforce issues.
- d. **Impact of the ACA on the CA Health Care Labor Force**
Joanne Spetz, PhD, Professor, Philip R. Lee Institute for Health Policy Studies Associate Director of Research Strategy, Center for the Health Professions University of California, San Francisco, presented recent research on the impact of ACA on the California Labor Force.

IV. Updates

- a. **Health Workforce Initiative Statewide Advisory Committee**
Linda Zorn, Statewide Director, Health Workforce Initiative, California Community Colleges Chancellors Office, presented Butte College's Hi-Touch Healthcare Curriculum for soft skills in nursing and allied health
- b. **SlingShot Regions & Workforce Accelerator**
Sarah White described the work of CWDB grantees addressing workforce issues in the healthcare sector
- c. **HWDC members** offered updates on a variety of health care skills initiatives around the state

V. Public Comment

None

Meeting Adjourned

Expanding Earn and Learn Models in the California Health Care Industry

A Report to the Legislature

As required by Assembly Bill 1797

Prepared by

Harbage Consulting

in consultation with

The California Workforce Development Board and

The California State Division of Apprenticeship Standards

About the Authors

This report was researched and written by Erynne Jones and Rebecca Malberg von Loewenfeldt of Harbage Consulting, with oversight and input from the California Workforce Development Board and the State Division of Apprenticeship Standards. Harbage Consulting is a national health policy consulting firm with deep expertise in public programs and delivery system innovation. Working with stakeholders across the industry — state agencies, county health departments, state and national health care foundations, consumer advocacy organizations, hospitals, health systems, trade associations, and labor unions — the Harbage team possesses decades of public and private sector experience at the federal, state, and community levels.

Table of Contents

- Introduction 1
- Part I: Background and Context for the Apprenticeship or Earn and Learn Model in the California Health Care Industry..... 2
 - Section 1: Demand for Qualified Health Care Workers 2
 - Section 2: Definitions and Structure 4
 - Section 3: Renewed Interest in the Apprenticeship Model..... 6
 - Section 4: International Apprenticeship Models 7
 - Section 5: Barriers and Challenges to Adapting Registered Apprenticeship or Earn and Learn Models to the Health Care Industry..... 9
- Part II: Opportunities to Integrate the Earn and Learn or Apprenticeship Model in the California Healthcare Industry 11
 - Section 6: Earn and Learn Models - Current and Under Development 11
 - Section 7: Requirements and Qualifications for Entry and Means to Identify, Assess, and Prepare a Pool of Qualified Candidates 16
 - Section 8: Performance Standards and Outcomes 20
- Conclusion..... 21
- Appendix A: Literature Reviewed 22
- Appendix B: List of Interviews..... 27
- Appendix C: Commonly Used Acronyms..... 32

Expanding Earn and Learn Models in the California Health Care Industry

Introduction

Health care is one of the largest and fastest growing industries in California. However, California's health care employers often struggle to find qualified workers to fill job vacancies. Fortunately, there are many candidates, both employed and unemployed, who could fill those jobs with the right training, experience, and opportunity.

The earn and learn model, in which participants earn a wage while completing necessary training, has the capacity to narrow the workforce gap and increase diversity within the health care industry. The model can open up new occupations to workers who may wish to pursue a career in health care, but are unable to forgo a paycheck while receiving the training required to do so. The earn and learn model is applicable to both high-wage jobs that require substantial training and experience, and medium-wage jobs that require basic training.

Assembly Bill (AB) 1797 (Rodriguez; Statutes of 2014) mandated a report to the Legislature to identify earn and learn opportunities specific to the health care industry, with recommendations for assessing qualified candidates, preparing participants for success, and creating industry-recognized performance standards.

AB 1797 requires the California Workforce Development Board (CWDB), in consultation with the California State Division of Apprenticeship Standards (DAS), to:

- (1) Identify earn and learn job training opportunities that meet the industry's workforce demands and that are in high-wage, high-demand jobs;
- (2) Identify and develop specific requirements and qualifications for entry into earn and learn job training models;
- (3) Establish standards for earn and learn training programs that are outcome-oriented and accountable. The standards shall measure the results from program participation, including a measurement of how many complete the program with an industry-recognized credential that certifies that the individual is ready to enter the specific allied health profession for which he or she has been trained; and
- (4) Develop means to identify, assess, and prepare a pool of qualified candidates seeking to enter earn and learn job training models.

In order to address the requirements of AB 1797, the report provides a picture of the current needs of the healthcare industry, identifies challenges to the applicability of the earn and learn model to the healthcare industry, and catalogues state job training opportunities that either meet the criteria for the earn and learn model or have similarities to the model of earn and learn opportunities in the health care industry.

The following steps were taken to create this report:

- A review of relevant literature about apprenticeships in the health care industry and the needs of the future health care workforce;

- One-on-one interviews with key leaders in the health care industry, including health care employers, labor representatives, and academics;
- One-on-one interviews with key leaders in the fields of education and workforce development, including representatives from the DAS, the United States Department of Labor’s Office of Apprenticeship (DOL-OA), community colleges, and other workforce training agencies; and
- One-on-one interviews with key staff and leaders who are currently operating earn and learn models in the health care industry.¹

In preparation for the drafting of this report, a coalition consisting of SEIU California, the DAS, the California Workforce Investment Board (now CWDB), California Community Colleges, and the SEIU United Health Workers (UHW) West & Joint Employer Education Fund convened two roundtable discussions to solicit feedback from employers and share ideas about how to expand the apprenticeship model in the health care industry. These discussions were held in Sacramento and Los Angeles during the spring of 2015. Attendees included Assembly Member Rodriguez, the leaders of DAS, DOL-OA, and the California Community Colleges, labor partners, health care employers, and workforce development and educational professionals. Many of the attendees of these roundtable discussions were interviewed for this report, and the notes from these discussions were used to formulate many of the questions that were asked during the interview process.

Part I: Background and Context for the Apprenticeship or Earn and Learn Model in the California Health Care Industry

Section 1: Demand for Qualified Health Care Workers

The health care industry has added one million jobs nationwide since the passage of the Patient Protection and Affordable Care Act (ACA) in 2008,² yet there are not enough qualified health care workers to fill these positions. A 2013 Report by the Bureau of Labor Statistics found that of the top 30 fastest growing occupations projected for 2012 through 2022, 18 were health care related.³ A report by the University of California San Francisco estimates that at least 2.5 million workers will be needed specifically for long-term care by 2030, with significant demand for counselors, community and social service workers, and home health and personal care aides.⁴

¹ For a full list of interviews, see Appendix B.

² Diamond, D. (2014, August 1). *Jobs are Growing. Health Care is Booming. So Why Are Hospitals Flat?* Forbes. Retrieved from <http://www.forbes.com/sites/dandiamond/2014/08/01/jobs-are-growing-health-care-is-booming-so-why-are-hospitals-flat/>

³ Includes medical, behavioral health, and dental industries. U.S. Department of Labor. Bureau of Labor Statistics. (2013, December 19). *Fastest Growing Occupations Table 1.3. Employment Projections Program*. Retrieved from http://www.bls.gov/emp/ep_table_103.htm

⁴ Spetz, J., Trupin, L., Bates, T., and Coffman, J. (2015, June). *Future Demand For Long-Term Care Workers Will Be Influenced By Demographic And Utilization Changes*. Health Affairs, vol. 34 (6).

A survey by the California HealthCare Foundation in 2012 found that California's health care industry employs more than 1.3 million people, with more than 50 percent of this population employed in ambulatory settings, 30 percent in hospitals, and 20 percent in nursing or residential care facilities.⁵ Of this workforce:

- 15 percent are physicians or clinicians (primary care doctors, specialists, dentists, pharmacists);
- 22 percent are registered nurses (nurse practitioners, certified nurse midwives);
- 9 percent are therapists (occupational, physical);
- 22 percent are technicians or diagnostic staff (licensed vocational nurses, dental hygienists, imaging); and
- 33 percent are health care support staff (nursing assistants, home health aides, medical and dental assistants).⁶

In order to meet the growing demand for services, California's health workforce will require an additional 250,000 workers by 2020, as well as additional workers to replace the nearly 200,000 health care workers who are expected to retire from the workforce during the same period.⁷

Roughly 40 percent of California's projected workforce needs are for "allied health professionals," who are distinct from registered nurses and physicians but who share in the responsibility for the delivery and management of health care services.⁸ Allied health workers come from over 70 areas of expertise, including occupations such as health information technicians, medical coders, pharmacy technicians, and phlebotomists.⁹ California's hospitals project a workforce gap of over one million allied health professionals by 2030, largely due to the aging workforce, growth in total population, and increase in the proportion of seniors and disabled populations during that time.¹⁰

There have been a number of initiatives to examine and address the health care workforce needs in California, including but not limited to the following:

- **The Health Workforce Development Council** was created to develop partnerships, examine workforce gaps, map career pathways, and develop recommendations to expand the primary care workforce. As a Special Committee of the California Workforce Development Board (CWDB), the Council recently established a subcommittee on healthcare apprenticeship.

⁵ California HealthCare Foundation. (n.d) *California's Health Care Workforce*. [website]. Retrieved from <http://www.chcf.org/publications/2014/03/california-workforce>

⁶ McConville, S., Bohn, S., and Beck, L. (2014, September). *California's Health Workforce Needs: Training Allied Workers*. *Public Policy Institute of California*. Page 5. Retrieved from http://www.ppic.org/content/pubs/report/R_914SMR.pdf

⁷ Ibid. Page 8-9.

⁸ Ibid.

⁹ Mullner, R.M. (2009). *Encyclopedia of Health Services Research*. Thousand Oaks, CA: SAGE Publications.

¹⁰ Fenton Communications. (2009). *Help Wanted: Will California Miss Out on a Billion-Dollar Growth Industry?* Available at http://calhealthjobs.org/system/files/attachments/helpwantedreport_48.pdf

- **The Office of Statewide Health Planning and Development (OSHPD)’s Shortage Designation Program (SDP)**, which locates areas that meet federal definitions of a workforce shortage area to help these regions qualify for federal and state grants, such as state and federal health professions scholarship and loan repayment programs;
- **The California Community College’s Economic and Workforce Development program’s Healthcare Workforce Initiative** identifies workforce issues, partners with health care employers to determine training needs and works with employers and educational institutions to identify solutions;
- **The California Endowment investment of \$90 million** to increase health professional training slots, expand clinical teaching sites, support workforce pilot projects and development of frontline workers;
- **The U.S. Department of Labor grant of \$1.8 million** for on-the-job training in California, targeting individuals in the health care sector; and
- **The Governor’s augmentation to the 2015-16 budget**, which directed \$15 million to “new and innovative apprenticeship programs” targeting high-demand industries, including healthcare.

Educational institutions, labor-management partnerships, and community-based organizations currently work with healthcare employers to provide training for new and incumbent workers. While these resources and the investments mentioned above represent a positive trend to close the workforce gap, they will not be sufficient to address the projected shortage of qualified workers.

Section 2: Definitions and Structure

Earn and learn models refer broadly to workforce training models that allow individuals to earn a paycheck while gaining the skills and education required for a specific occupation.

The apprenticeship model, a sub-category of the earn and learn model, has been a component of workforce training in the United States for some time and is the dominant training model in the building and construction trades. The most common structure for these apprenticeships involves a union and an employer partnering to guide the standards for employment in a given field. State and federally approved apprenticeship programs are organized under the Registered Apprenticeship system.

A Registered Apprenticeship includes:

- On-the-job learning with mentorship;
- Classroom instruction;
- Incremental wage gain from start to completion; and
- A “Certificate of Completion of Apprenticeship” — a credential awarded by state and federal apprenticeship agencies documenting the attainment of journey-level skills and knowledge.

Under the Registered Apprenticeship model, employers and program sponsors work closely with a state and/or federal apprenticeship agency to:

- Select the occupations that will be trained;

- Determine the overall length of the program;
- Agree upon competencies that will be achieved through training;
- Identify benchmarks for incremental wage increases;
- Appoint mentors; and
- Determine accompanying classroom instruction.

Research on the effectiveness of the Registered Apprenticeship model as a means for increasing worker economic security is promising. A 2012 study commissioned by the U.S. Department of Labor found an average wage gain of \$47,586 over the nine-year period following completion of an apprenticeship program, and an average wage gain of nearly \$124,000 (including health insurance and other benefits) over the entire career of apprenticeship participants.¹¹

Apprenticeships were also associated with a net social benefit from reductions in public assistance and unemployment compensation of nearly \$62,000 for each apprentice.¹² A report by the State of Washington found that for every dollar invested into state apprenticeships, an average savings of \$23 per taxpayer was realized as a result.¹³ Additionally, an Urban Institute study of employer satisfaction with the apprenticeship model found that 97 percent would recommend it to others and commonly cited fulfillment of workforce gaps, strengthened workforce morale, and improved recruitment and retention rates as benefits of participation.¹⁴ The employment rate for apprentices is on average 6.8 percent higher than a matched group over a three-year period.¹⁵

Registered Apprenticeships in the United States are jointly governed by federal and state agencies. Most state agencies work in partnership with the Federal Department of Labor's DOL-OA, which oversees the National Registered Apprenticeship program. Additionally, some 27 states, including California, have their own State apprenticeship standards.

Apprentices in a Registered Apprenticeship Program can fulfill training requirements in one of three ways:

1. A competency-based approach that combines on-the-job learning components and related technical instruction (RTI);

¹¹ Reed, D. et. al. (2012, July). *An Effectiveness Assessment and Cost-Benefit Analysis of Registered Apprenticeship in 10 States*. Mathematica Policy Research for DOL-ETA. Available at http://wdr.doleta.gov/research/FullText_Documents/ETAOP_2012_10.pdf

¹² Ibid.

¹³ Steinberg, S. and Gurwitz, E. (2014, September 25). *5 Case Studies That Illustrate the Promise of Apprenticeship in the United States*. Center for American Progress. Retrieved from <https://www.americanprogress.org/issues/economy/report/2014/09/25/97772/innovations-in-apprenticeship/>

¹⁴ Lerman, R. et al. (2009). *The Benefits and Challenges of Registered Apprenticeship: The Sponsors' Perspective*. The Urban Institute Center on Labor, Human Services, and Population. Retrieved from http://www.urban.org/research/publication/benefits-and-challenges-registered-apprenticeship-sponsors-perspective/view/full_report

¹⁵ Hollenbeck, K. a.-J. (2006). *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State*. Upjohn Institute Technical Report No. 06-020. Retrieved from http://research.upjohn.org/up_technicalreports/20/

2. A traditional time-based approach that requires 2,000 hours of on-the-job training; or
3. A hybrid approach with a specified number of on-the-job-learning hours and technical instructions that must be completed in order to demonstrate competency.¹⁶

In California, the Registered Apprenticeship program is under the purview of the California Department of Industrial Relations' Division of Apprenticeship Standards (DAS).¹⁷ DAS and DOL-OA have shown great interest in working collaboratively to address the workforce needs in the health care sector and identifying methods for expanding the use of Registered Apprenticeships in health occupations. DOL-OA has approved 40 Registered Apprenticeship programs among employers across the nation for health care occupations and identified an additional 53 occupations in health care that could be adapted for a Registered Apprenticeship program.¹⁸ California currently has just two health apprenticeship programs, the long-standing "Psychiatric Technician" program at Napa State Hospital and a newly developed "Community Health Worker" apprenticeship program in Los Angeles County. However, development of new apprenticeship programs in healthcare occupations is a priority of the DAS, and new programs could be developed in any of the 53 healthcare occupations identified as "apprenticeable" by the federal government.

Section 3: Renewed Interest in the Apprenticeship Model

In his 2015 State of the Union Address, President Obama recognized the importance of expanding apprenticeship opportunities across the country, especially in new and emerging industries like health care. The Obama Administration set a goal of doubling the number of Registered Apprenticeships over the next five years, with the apprenticeship model cited as a pathway to higher pay and job security. Governor Brown has also been a vocal proponent of expanding the apprenticeship model.

Recent support for the expansion of the apprenticeship model includes the following major investments:

- **The U.S. DOL-OA American Apprenticeship Grants for 2015** sought to expand the number of Registered Apprenticeships in emerging industries.¹⁹ Through this program, \$175 million was awarded to 46 applicants on September 9, 2015, including six California-based grantees. Specifically, this investment targets "high skilled, high growth industries," including health care, biotechnology, information technology, and advanced manufacturing.²⁰ Only one of the six California grantees included a health care-related apprenticeship program (Managed Career Solutions, Inc. based in Los Angeles, with a focus on health information technology).

¹⁶ 29 CFR Section 29.5(b)(2)

¹⁷ State of California Department of Industrial Relations. (n.d.) "Division of Apprenticeship Standards - Overview of DAS." [website]. Available at http://www.dir.ca.gov/das/das_overview.html

¹⁸ U.S. Department of Labor Employment and Training Administration. (n.d.) *Using Registered Apprenticeship to Build and Fill Healthcare Career Paths: A Response to Critical Healthcare Workforce Needs and Healthcare Reform*. Retrieved from http://www.doleta.gov/oa/pdf/Apprenticeship_Build_Health_care_Paths.pdf

¹⁹ U.S. Department of Labor. (n.d.) *American Apprentice Initiative*. FOA-ETA-15-02. Retrieved from <http://www.grants.gov/web/grants/view-opportunity.html?oppld=270372>

²⁰ U.S. Department of Labor. (2014, December 11). *\$100M in grants to transform apprenticeship for the 21st century by expanding training into new high-skilled, high-growth industries*. [Press Release]. Retrieved from <http://www.dol.gov/opa/media/press/opa/OPA20142233.htm>

- **The 2015-2016 California state budget restoration of \$14 million for existing apprenticeship programs and investment of an additional \$15 million** into “new and innovative apprenticeship programs in emerging industries,” including health care. Because this funding is tied to Proposition 98 General Funds, lead applicants must be local education agencies or community colleges in partnership with employers and others.

These investments in new apprenticeship programs can layer upon existing workforce investments in California to help prepare individuals to participate in a Registered Apprenticeship, including, for example:

- **The CWDB and the Employment Development Department Workforce Investment Act (WIA) investment of \$5.7 million** into a Workforce Accelerator Fund (WAF) to create and prototype innovative strategies that can accelerate skill development, employment, and reemployment, including projects that prepare candidates from targeted populations through earn and learn training models.²¹
- **The CWDB SlingShot regional partnership program**, which is investing \$11.2 million (2014-16) to innovate systems change in collaborative regional skill delivery designed to increase income mobility across California.²²
- **The California Employment Training Panel (ETP) investments in Career Technical Education, healthcare, and apprenticeship**, including its Apprenticeship Training Pilot Program, designed to target funds to the related and supplemental instruction (RSI) portion of an apprenticeship curriculum.²³

Section 4: International Apprenticeship Models

The apprenticeship model is still fairly limited to certain occupational fields in the United States. However, other countries commonly use the apprenticeship model as part of the required training for their workforce and integrate the model into the education system. These countries include, but are not limited to:

- **Germany:** Germany uses a dual education system, which combines an apprenticeship with employer and vocational education. Roughly 60 percent of German youth participate in apprenticeship training and receive a reduced wage while training.²⁴ The Federal Institute for Vocational Education and Training oversees all vocational training for the over 350 job

²¹ California Workforce Investment Board. (2015, April). *Workforce Accelerator Fund 2.0 Request for Applications*. Retrieved from [http://cwdb.ca.gov/res/docs/Workforce percent20Accelerator percent20Fund/WAF2.0 percent202015/WAF2.0RFA_FINAL.awdocx.pdf](http://cwdb.ca.gov/res/docs/Workforce%20Accelerator%20Fund/WAF2.0%202015/WAF2.0RFA_FINAL.awdocx.pdf)

²² California Workforce Investment Board. (n.d.) *SlingShot: Accelerating Income Mobility through Regional Collaboration*. Retrieved from <http://cwdb.ca.gov/res/docs/SlingShot/1SlingshotOverview415L.pdf>

²³ State of California Employment Training Panel. *Annual Report 2013-2014*. Retrieved from: <https://www.etp.ca.gov/docs/annual%20reports/annualreport13-14.pdf>

²⁴ Westervelt, E. (2012, April 4). *The Secret To Germany's Low Youth Unemployment*. National Public Radio. Retrieved from <http://www.npr.org/2012/04/04/149927290/the-secret-to-germanys-low-youth-unemployment>

categories of apprenticeships. It also sets the framework for training, education, and certifications for each occupation in collaboration with employers and labor representatives.²⁵ There are more than 27 approved apprenticeship occupations in health care,²⁶ and most apprenticeships last for three years.

- **Switzerland:** Seventy percent of Swiss youth participate in apprenticeship programs that allow them to rotate between a workplace and an educational institution. This program has a 91 percent completion rate. Participants have a choice of six post-secondary occupational fields, including health and social work, upon completing upper secondary training at around age 16. Participants receive an average monthly stipend of \$800, which increases to an average of \$1,000 per month by the end of the program.²⁷ Similar to Germany's dual system, Switzerland's educational infrastructure incorporates both the educational and hands-on aspects of learning and includes classes taught by industry professionals.²⁸
- **United Kingdom:** An employer-led Sector Skills Council (SSC) designs and approves "apprenticeship frameworks," which are similar to American apprenticeship standards. On-the-job training hours, core competencies, and wages are determined by employers through the Skills for Health SSC, which oversees health care apprenticeships throughout England, Wales, Northern Ireland, and Scotland within both clinical and non-clinical practice. Individuals in the United Kingdom that complete apprenticeships earn a wage that is about ten percent higher than those that do not.²⁹ Currently, more than 80 frameworks are available for more than 100 distinct health professions.³⁰

Apprenticeships in other countries have shown considerable promise in terms of linking individuals to employment. In the summer of 2015, the U.S. Departments of Commerce, Labor, and Education signed a joint declaration with the Federal Department of Economic Affairs, Education and Research of the Swiss Confederation to adapt elements of the Swiss apprenticeship model to the United States, including collaboration on "work-based training, curriculum development, credential recognition, pathways to career development, and the expansion of programs into new industry sectors."³¹

²⁵ <http://www.apprenticeshipcarolina.com/press/apprenticeships-make-a-comeback.html>

²⁶ Mauldin, B. (2011). *Apprenticeships in the Health care Industry*. Page 49. Retrieved from <http://www.lni.wa.gov/TradesLicensing/Apprenticeship/files/pubs/ApprenticeshipsHealthCareIndustryMauldin.pdf>

²⁷ Hoffman, N. (2013, September 10). Apprenticeships ensure that young people in Switzerland are employable. Retrieved from <http://qz.com/122501/apprenticeships-make-young-people-in-switzerland-employable/>

²⁸ Graf, L. (2014, December 1). *The Swiss Apprenticeship System*. Johns Hopkins University American Institute for German Studies. Retrieved from <http://www.aicgs.org/publication/the-swiss-apprenticeship-system/>

²⁹ Steinberg, S. and Gurwitz, E. (2014, September 25). *5 Case Studies That Illustrate the Promise of Apprenticeship in the United States*. Center for American Progress. Retrieved from <https://www.americanprogress.org/issues/economy/report/2014/09/25/97772/innovations-in-apprenticeship/>

³⁰ Skills for Health. (2011, May). *Improve Quality and Productivity: How Skills for Health can help you develop and transform your workforce*. Retrieved from <http://extranet.skillsforhealth.org.uk/catalogue/SFH-Flagship-E-Brochure.pdf>

³¹ U.S. Department of Commerce. (2015, July 9). *Swiss Companies Bring Long Tradition of Apprenticeships to the U.S. – Creating Jobs, Building Skills, Sharing Prosperity*. [Fact Sheet]. Retrieved from

Section 5: Barriers and Challenges to Adapting Registered Apprenticeship or Earn and Learn Models to the Health Care Industry

Various health care employers and health care unions are working to implement the earn and learn model or versions of the earn and learn model across the country and in California. There have been issues with sustainability even when these models are implemented. While many health care occupations have been identified as appropriate for earn and learn models, the number of formal and standardized earn and learn programs in health care is still quite limited.

While there are many advantages to expanding Registered Apprenticeships in health care, employers have been slow to adopt the model to the health care industry for a number of reasons, including the following key issues:

- **Limited Career Ladders:** Most health care positions do not have clear career ladders for entry-level workers to advance into clinical roles, or for lateral movement from one health care role into another.
- **Culture of Hiring Licensed or Credentialed Employees:** While residency programs are a good example of models in which employers pay participants a wage while they are learning on the job, there are few programs, including residencies, where the employer commits to hiring the student prior to the completion of a license or credential and pays the student while they are fulfilling the classroom portion of their training.
- **Time-Based Standards:** Time-based standards for Registered Apprenticeships may not align with competency-based models of training common in the health care settings. Some health care roles, especially those at the entry level, do not require as much classroom or on the job training as is necessary to meet apprenticeship requirements.
- **Upfront Investment:** Healthcare employers who are looking for entry-level healthcare workers are often county or state entities hiring, for example, home care and community health workers. These employers do not have the fungible capital to invest in program development, outreach, administration (e.g., record-keeping and journey-level supervision of apprentices), or, more fundamentally, the model of wage progression.³²
- **Flexibility:** It can take over a year to get new curricula approved by a community college and longer if an existing course must be modified to include apprenticeship indicators. Currently, only local education agencies can approve curricula to fulfill the classroom portion of the California Registered Apprenticeship program since funding is tied to Proposition 98 dollars. Finding opportunities for flexibility and nimbleness in traditional apprenticeship program models and curriculum approval processes may increase industry buy-in.

<https://www.commerce.gov/news/fact-sheets/2015/07/swiss-companies-bring-long-tradition-apprenticeships-us-creating-jobs>

³² Registered Apprenticeship's required wage progression is based on the simple premise that the more apprentices learn and can perform, the more they are paid. A rule of thumb for the return on this skills investment: about mid-way through a typical apprenticeship program, workers start making more for their employer than they get in wages. Conversely, during the first half of the program, the employer pays slightly more than they gain in production value.

- **Institutional Resistance:** Licensing boards have traditionally acted as gatekeepers to their professions and have not been open to expanding entry into some of the skilled health care professions for fear of diminishing wages. Quality concerns play a role as well. Patient health and safety is often referenced in limiting the scope of practice for trainees. Accreditation boards are often reluctant to create flexible or alternative pathways to entry over concerns that this will lower quality standards.
- **Misaligned Incentives for Community College Participation:** Although they offer many health care training programs, community colleges are not equally incentivized to partner with employers and unions to implement apprenticeship programs as they are to provide general education. Community colleges are reimbursed approximately \$8.50 per hour for general education credits for students that are not enrolled in apprenticeship courses and \$5.46 per hour for students taking apprenticeship classes.³³
- **Funding:** Significant investments are currently being made into expanding apprenticeships, but past efforts have not had sustainable sources of funding, deterring potential employers and partners from participating. Successful apprenticeship programs outside of health care have typically been the product of collective bargaining agreements. While training dollars are commonly the subject of collective bargaining in health care, the agreements have not created full-scale apprenticeship programs. In addition, funding opportunities have not allowed for the costs involved in developing new programs.
- **Lack of Cross-Sector Collaboration:** While state and federal apprenticeship agencies have led the charge in expanding the reach of apprenticeship programs to other industries, the Centers for Medicare and Medicaid Services (CMS), which administers the Medicare program and works with state agencies to administer Medicaid, has largely been absent from the discussion.
- **Semantics:** Health care employers and health care workers are reluctant to embrace the concept of “apprenticeship,” because they associate the term with occupations in the building and construction trades.

³³ Pursuant to Education Code section 8152, the reimbursement rate is set annually in the State Budget Act.

Part II: Opportunities to Integrate the Earn and Learn or Apprenticeship Model in the California Healthcare Industry

Section 6: Earn and Learn Models - Current and Under Development

Existing Models in California

There are a variety of earn and learn style programs currently operating in California, including two Registered Apprenticeship program in health care. The best practices and operations of these programs can serve as models for future programs.

As mentioned above, few of the programs meet all of the criteria of the Earn and Learn or Apprenticeship model. Many of these programs are taking unemployed or underemployed individuals with no experience in healthcare settings, providing them with unpaid training opportunities, and then working with them to find employment. In order to meet the criteria of Earn and Learn or Apprenticeship, new funding mechanisms for health care education would need to be identified.

Psychiatric Technicians

The only long-standing DAS Registered Apprenticeship Program in health care in California is a joint partnership between the California Association of Psychiatric Technicians (CAPT), members of the California State Departments of Personnel and Mental Health, Napa Valley Community College, and Napa State Hospital. Licensed psychiatric technicians are members of interdisciplinary teams who care for patients with mental illness and developmental disabilities. Participants have the opportunity to train for three levels within the psychiatric technician occupation.

Participants receive 3,000 hours of on-the-job training and classroom learning in subjects including mental health, safety, nursing science, and pharmacology. Participants receive a baseline salary of \$2,353 a month, which eventually increases to \$2,845 a month as participants complete academic and on-the-job components of their training. Wage increases occur after every 800 hours of completed training. Since the psychiatric technician apprentice is considered a state civil service position, apprentices receive job benefits through the CAPT contract, including health benefits, paid holidays, and vacation.³⁴ Participants sit for the licensing exam at the end of the program to become licensed psychiatric technicians.

In order to participate, participants must have at least a 12th grade education, including demonstrated proficiency in English and mathematics. Initially, participants receive training in the hospital as certified nursing assistants (CNAs) so that they are able to perform on-the-job duties as CNAs prior to obtaining their psychiatric technician license. They are then fast-tracked into the psychiatric technician program. The program receives approximately 400 applicants for the 30 available slots annually and has an average graduation rate of 25 new psychiatric technicians every 18 months.

³⁴California Department of State Hospitals. (n.d.) *Psychiatric Technician Apprenticeship Training Program*. [website]. Retrieved from <http://www.dsh.ca.gov/napa/Internships.asp>

Medical Administrative Assistants

Jewish Vocational Service (JVS) is a community-based organization that trains workers and connects them to employment. They have been operating for over 40 years in San Francisco. JVS has a partnership with the University of California San Francisco (UCSF) to administer the Excellence through Community Engagement and Learning (EXCEL) partnership, which combines classroom and on-the-job training to train medical administrative assistants.

JVS accepts participants into a ten-week training program that includes classroom instruction on topics ranging from computer skills to customer service. Upon completion of the 30 hour per week classroom component, EXCEL participants move into a four-month paid internship at UCSF as medical administrative assistants. They work for approximately 32 hours per week and attend a weekly classroom instruction period for continued education and peer-support. Participants are not paid during the educational portion of the program but do receive \$17 per hour during the four-month internship. All internship completers are eligible to move into full time positions, either through a contract position or a career position, and they earn on average \$21 per hour.

EXCEL recruits from CalWORKS and Personal Assisted Employment Services (PAES) recipients. Upon program completion, approximately 80 percent of participants attain full time work. Candidates must have a high school diploma or equivalent, and undergo a background check. Since 2010, 171 participants have enrolled in EXCEL. With the exception of the 18 participants who are currently in an internship, 82 percent of those enrollees have been placed in jobs. While wages have increased each year, the most recent cohorts earned average wages of \$21 per hour, significantly higher than the county minimum wage and higher than the self-sufficiency wage in San Francisco.³⁵

This program was recently expanded to the John Muir Hospital in Contra Costa County with funding from CWDB and additional support from JP Morgan Chase and the Y & H Soda Foundation. The Contra Costa Workforce Development Board, JP Morgan Chase, and the Y & H Soda Foundation fund the current cohort.

Medical Scribes

Medical scribes document encounters between physicians and patients during medical exams and enter this data into an electronic health record. The presence of the medical scribe relieves the physician of the burden of documentation and allows him or her to focus on the patient. Medical scribes have traditionally been used in hospital settings, but are becoming more common in community health centers. Shasta Community Health Center staff developed a training program to help medical assistants become medical scribes. Participants are paid for fulfilling their duties as medical assistants during the training period but not for the time spent attending the six-week course. While the pilot phase of the program targeted medical assistants, the program now allows applicants to take part in the program if they have some college experience and can demonstrate writing proficiency. Non-medical assistant participants are not paid for the time spent in the program until they are able to perform job duties.

³⁵ Mollica, J. & Countryman, L. *Transforming U.S. Workforce Development Policies for the 21st Century: A Book for Policy and Practice*. [unpublished draft]. Available by request.

The curriculum begins at a basic level and advances in complexity over the course of six weeks. Participants must maintain an 80 percent pass rate during weekly exams in order to continue the program and then pass a final exam that results in an internal certification. Shasta Community Health Center then pays for the newly certified medical scribe to sit for the exam sponsored by the American College of Medical Scribe Specialists. Medical scribes typically start at \$13 per hour and can eventually earn up to \$17 an hour. Since the launch of the program, medical scribes have become a critical part of the care team at Shasta Community Health Center. The health center has seen improvement in its diagnostic coding and provider satisfaction rates.³⁶ The health center reports that the presence of scribes has been a major asset in physician recruitment.

Models under Development in California

The following two models are under development through partnerships between Service Employees International Union (SEIU) local unions and health care employers. While neither was selected as a grantee of the Department of Labor American Apprenticeship Grants for 2015, both are on track for implementation. We can expect to see more health care employers and partner unions building apprenticeship models, given the availability of funding through the 2015-2016 state budget.

Medical Coders

Medical coders are charged with transforming medical diagnoses, procedures, and professional services into universal medical code numbers for quality and billing purposes. Medical coding vacancies are often the result of an abundance of workers who have obtained the necessary certification but do not have the work experience that employers require.

SEIU-United Healthcare Workers (UHW) and Kaiser Permanente are creating a professional services coding apprenticeship through the SEIU-UHW West & Joint Employer Education Fund and its non-profit Shirley Ware Education Center using funding from a CWDB accelerator grant. The program focuses on educating entry level professional services coder level one employees (entry-level) to become professional services coder level two employees (proficient, journey person level). Professional services coder level three employees will provide mentorship for program participants, which will be complemented with online training approved by a local education agency. The initial pilot aims to train ten individuals, with mentors supervising between one to three mentees each. SEIU-UHW have been meeting with DAS staff to prepare paperwork necessary to register this program with the State of California DAS. SEIU-UHW and the Education Fund are exploring options to adapt this model to provide training for radiology technologists to obtain certification in specialties including CT and MRI specializations.

Community Health Workers

Community health workers (CHWs) are unlicensed, frontline health workers who perform a variety of duties, such as health education, outreach, patient navigation, and basic data collection. These workers are recruited from the communities they serve, giving them significant credibility with their patients.

³⁶Howard, K. et al. (2012). *Adapting the EHR Scribe Model to Community Health Centers: The Experience of Shasta Community Health Center's Pilot*. Blue Shield of California Foundation. Retrieved from <http://btw.informingchange.com/uploads/2012/08/Shasta-EHR-Scribes.pdf>

The position does not require any specific licensure or education but generally requires a certain level of health literacy, social skills, and leadership qualities. The goals of the CHW model include expanding primary care capacity and providing intensive services to high cost, high utilizing patients.

SEIU Local 721 Southern California Public Service Workers and the Worker Education & Resource Center (WERC) are working through a partnership between the Community Clinic Association of Los Angeles and LA Care's Safety Net Initiative Department to develop training to integrate CHWs into outpatient clinical care teams. This newly developed apprenticeship model is registered with the DOL-OA and is the second health apprenticeship in California to be registered with the California DAS. As part of the clinical team, CHWs will be trained as health coaches and care coordinators for patients with chronic and complex conditions that require social services outside of the clinic. Up to 12 CHWs will receive 144 hours of classroom instruction as part of the initial program and then will be placed in community health clinics for up to two years of paid, on-the-job training.³⁷ WERC will serve as the fiscal intermediary, hire and train CHWs, assign participants to clinics, and monitor program progress. The program plans to start accepting apprentices in 2016.

In order to meet the growing need for CHWs, there are a number of other initiatives currently underway or under development outside of California, including in Texas through the Texas Area Health Education Center East³⁸ and in Pennsylvania through the District 1199C Training & Upgrading Fund.³⁹ The goals are to strengthen the skills and enhance the value of CHWs through learning models that combine classroom training for core competencies with on-the-job experience.

Current Models Outside of California

The following are examples of earn and learn models outside of California. This list is intended to provide a sample of the types of programs that could potentially be adapted for the needs of California's health care workforce. However, because new programs are emerging regularly, it is not an all-inclusive list.

Pharmacy Technicians

CVS Pharmacy's Career Prescriptions for Success (CAPS) program was funded in 2005 through a grant from President Obama's High Growth Job Training Initiative (HGJTI). The goal was to close workforce gaps in pharmacy and pharmacy technician positions in the Detroit area while stimulating economic growth. Participants in the apprenticeship program were hired as CVS employees and then linked to the apprenticeship program. Participants received an hourly wage and health benefits during training.

³⁷ L.A. Care Health Plan. (2015, July 8). *Board of Governors Meeting #247*. Pages 125-128. Retrieved from https://www.lacare.org/sites/default/files/073015_percent20BoG_percent20Meeting_percent20Materials.pdf

³⁸ Texas Workforce Investment Board. (2013, December). *Registered Apprenticeship [sic] as a Strategy to Meet Employer Demand for Skilled Workers*. Available at [http://gov.texas.gov/files/twic/Registered Apprenticeship.pdf](http://gov.texas.gov/files/twic/Registered_Apprenticeship.pdf)

³⁹ District 1199C Training & Upgrading Fund. (n.d.). *Community Health Worker Apprenticeship: An innovative labor-management partnership model, integrating systems and braiding funding sources to help get the long-term unemployed back to work*. Available at [http://www.1199ctraining.org/docs/Newsroom Reports/CaseStudy_CHW.pdf](http://www.1199ctraining.org/docs/Newsroom_Reports/CaseStudy_CHW.pdf)

The pilot relied on faith-based and community organizations that were paid a stipend to provide participants with soft skill training, mentorship and support, and other pre-employment skills. Participants then moved to a two-week unpaid internship for exposure to the workplace before participating in an interview with the hiring manager to determine if they would be a good fit for the apprenticeship program. Candidates selected to be apprentices from this pool worked approximately 20 hours a week with a payroll subsidy for the first 90 days and received mentoring and on-the-job training from pharmacists and trainers. They were then hired as full time employees. Those who completed the training program received a Registered Apprenticeship certificate from the DOL-OA.

The initial pilot exceeded its initial projections, resulting in 644 candidates receiving job readiness and support services, and 92 apprentices advancing through pharmacy career ladders.

Medical transcriptionists, phlebotomists, pharmacy technicians, medical coders, licensed nursing assistants, medical assistants, and practice support specialists

Vermont HITEC is a non-profit educational organization that links participants to high demand jobs throughout Vermont and New Hampshire. In addition to advanced manufacturing and information technology positions, Vermont HITEC has worked with more than 1,000 participants and 25 employers to link participants to careers as medical transcriptionists, phlebotomists, pharmacy technicians, medical coders, licensed nursing assistants, medical assistants, and practice support specialists.

Under the HITEC model, participants spend an average of 40 hours a week in classroom training, with 12 additional hours of homework during evenings and weekends. This portion of the program is unpaid; however, participants who complete the training and pass all relevant exams are guaranteed employment. The decision about whether to pay students during the classroom portion of the program is left to the employers. The educational component of the program is competency-based and taught by Vermont HITEC staff who become experts in the specific competencies that they are teaching. In addition to teaching the educational component of the program, Vermont HITEC staff recruit participants, handle all administrative and financial requirements, and provide onsite mentoring throughout the on-the-job portion of the apprenticeship. Vermont HITEC staff work with employers to determine the level of graduated wages upon completion of the program and ensure that participants acquire competencies that allow them to enter at the high end of the occupation's wage scale.

Vermont HITEC has an agreement in place with Burlington College for dual enrollment of participants so that participants are able to attain academic credit for their apprenticeship program. HITEC participants attain 45 credits for their participation in the apprenticeship program at no charge and have the option to complete an additional 15 general education credits online at their own expense to attain an associate degree.

Home Care Aides

SEIU 775NW is the union that represents long term care workers in Washington State and Montana. SEIU 775NW's Training Partnership was recently lauded in the White House Report, "Ready To Work: Job-Driven Training & American Opportunity," for its role in training an average of 45,000 home care workers per year to provide essential services to elderly and disabled residents, making it the largest homecare workforce training provider in the nation. The Training Partnership's Apprenticeship Program

offers training to upgrade the skills of current home care workers, using federal registered apprenticeship guidelines through a competency-based model.

Participants in the program receive 145 hours of total training, including 70 hours of advanced classroom experience and 12 hours of peer mentoring from an experienced home care aide. Upon successful completion of the program, participants receive a wage increase and a certificate of completion from the Department of Labor. The program is currently being retooled to help better serve consumers with complex care needs.

Medical Assistants

Medical assistants are unlicensed workers that perform routine technical and administrative services under the supervision of a licensed provider. West Michigan hospitals recently partnered with Michigan Works, a non-profit workforce development association that connects workers with employment opportunities, to launch an apprenticeship pilot to train medical assistants. The goal is to expand the workforce as well as to upgrade the skills of current non-medical staff.

Training for the program will begin in January 2016 and will take between 18 and 24 months to complete. The program combines classroom learning and on-the-job training, with the majority of program costs covered by hospital employers. Because the program is approved by the Michigan Department of Labor, employers are eligible to receive approximately \$3,000 per participant through state training funds. The Michigan Department of Labor is currently working with community colleges to finalize program curriculum and determine participating locations.⁴⁰

Section 7: Requirements and Qualifications for Entry and Means to Identify, Assess, and Prepare a Pool of Qualified Candidates

In order to meet the growing needs of the health care industry, California should continue directing funds to opportunities that develop skilled workers. While some health care jobs are already high wage, the state should also focus on creating opportunities for people to enter the health care field. By providing education and skill development, the state can increase both the quality of the care provided and the wages for the workers in those jobs.

Through discussions with experts, leaders, and stakeholders in the fields of health care, workforce development, and education, this report has identified key job types that would be good prospects for the earn and learn or apprenticeship model. However, not all of these classifications fit the criteria for full apprenticeship recognition or meet the full criteria for the earn and learn classification. There is significant need in the health care industry for workers in jobs that do not require 145 hours of training. There are also few employers who are currently willing to pay workers for the educational portion of their training and commit to hire those program graduates upon completion of their education.

⁴⁰ Thomas, S. (2015, August 10). *Medical Assistant Apprenticeships Created to Meet Shortage of Workers*. mLive Media Group. Retrieved from http://www.mlive.com/business/west-michigan/index.ssf/2015/08/hospitals_create_tuition-free.html

There are three main categories of workers that would benefit from the earn and learn or apprenticeship model:

1. New or Unemployed Workers Moving into Entry-Level, Unlicensed Positions
2. New or Unemployed Workers Moving into Entry-Level, Licensed Positions
3. Incumbent or Highly Educated Workers Moving into Specialty Positions

The requirements needed for entry and the ways of identifying a qualified applicant pool will vary depending on the model.

Model 1: New or Unemployed Workers Moving into Entry-Level, Unlicensed Positions

There is an opportunity to train currently unemployed or entry-level workers to be health care workers. These programs should target workers with little to no experience, give them educational opportunities, and place them in entry-level health care jobs.

It may be necessary to provide basic skills and other pre-apprenticeship services to ready these individuals for the workforce. By investing in this workforce, the state can both add needed resources to the health care industry and provide job opportunities to unemployed individuals. Some of the programs using this model require the worker to complete the education portion of the program on their own time and without pay. It will be up to the individual employer and educational partner to determine the best mix of paid versus unpaid opportunities. An important discussion for this model will be whether it is possible to find employer partners who are able to create true earn and learn opportunities for these workers. Opportunities will exist within collective bargaining relationships for this discussion to occur.

Some of these programs may not qualify as Registered Apprenticeship programs based on the current state and federal standards. For example, they may not require 144 hours of classroom learning and there may not be a defined career ladder once employed. However, these types of earn and learn models can be used to put people into stable and necessary jobs within the health care industry.

<i>Model 1</i>		
Sample Job Titles/Classification	Requirements and Qualifications for Entry	Means to Identify, Assess, and Prepare a Pool of Qualified Candidates
<ul style="list-style-type: none"> • Medical Administrative Assistant • Advanced Home Care Aide • Community Health Worker • Medical Transcriptionist 	<ul style="list-style-type: none"> • Interest in the health care industry and dedication to quality patient care; • Proficiency in multiple languages • Current relationships within and knowledge of underserved communities • Ability to work in team based environments • Personal traits such as perseverance, ambition, and initiative, and a strong work ethic; and • Qualifications necessary for employment such as the ability to physically perform essential job functions, transportation to the work site, and clear criminal background checks. 	<ul style="list-style-type: none"> • Partner with Community Based Organizations who are interested in job training programs • Partner with labor unions who already represent these workers • Work with job placement and training entities to identify interested candidates • Create pre-apprenticeship programs or partner with educational institutions to give unskilled workers some of the basic skills needed to perform these jobs (medical vocabulary, team based working, motivational interviewing, general communication skills, etc.) • Partner with employers who are willing to invest in time spent in training to build a qualified pool of workers

Model 2: New or Unemployed Workers Moving into Entry-Level, Licensed Positions

There is proven experience that shows that workers can move into entry-level, licensed positions with proper education and support. Model 2 targets individuals with little to no experience, including current employees of health care employers who are not employed in clinical roles and new recruits. This model involves a front loaded education component that trains participants for licensure exams, so that the worker begins the on-the-job training component upon receipt of the requisite licensure. The model seeks to address the mismatch of workers that are able to obtain licenses, but unable to get full time employment because they lack sufficient work experience.

By investing in workers and providing them the needed experience as a bundled package, the state can help fill existing gaps in the health care pipeline. The state and employers will need to identify educational partners that can tailor their curriculum to these apprenticeship programs. The increasing availability of online learning should make it easier for this model to be more widely utilized.

As in the previous model, there are examples of existing programs for these classifications that involve a paid training component, as well as examples of programs that do not. Changing attitudes among health care employers about the importance of providing paid learning experiences will be key to the success of expanding the earn and learn model to these classifications.

<i>Model 2</i>		
Sample Job Titles/Classification	Requirements and Qualifications for Entry	Means to Identify, Assess, and Prepare a Pool of Qualified Candidates
<ul style="list-style-type: none"> • Psychiatric technician • Pharmacy technician • Medical scribe • Medical coder • Phlebotomist 	<ul style="list-style-type: none"> • All requirements in Model 1 are applicable to Model 2 • Willingness to attend necessary classroom training and sit for licensure exam • Current licensure (this model is also applicable to those who have the licensure for these classifications but do not yet have sufficient work experience) • Licensure in a lower level healthcare job that has given the applicant experience interacting with patients • Experience working in a health care setting (preferred, but not necessarily required) • Facility with medical vocabulary • High school or college degree (depending on employer and state requirements) 	<ul style="list-style-type: none"> • Partner with current healthcare employers to identify incumbent workers • Partner with labor unions and health care employers who work with workers in Model 1 classifications who are looking to expand their reach into the health care industry • Partner with employers who are willing to invest in time spent in training to build a qualified pool of workers • Partner with educational institutions who have provided training to students who are credentialed in these fields but have not yet found employment because of lack of experience

Model 3: Incumbent or Highly Educated Workers Moving into Specialty Positions

Model 3 targets current workers who possess relevant licensure and trains them to move into hard-to-fill specialty positions. An example of this is a registered nurse (RN) who wants to become an intensive care nurse. The RN does not need an additional credential but does require additional training and experience. The educational component should allow the worker to continue his or her current duties while developing the skills needed for the new position. In addition to the training, the worker would be provided an on-site mentor and wage growth for benchmark achievements.

One of the challenges of this model is to find community college programs available for specialization because of the low volume of participants. Because some of these positions may require a bachelor's degree, they may also require partnerships with the California State University system. This model will be well served by health care employers jointly determining curricula and sharing resources to provide the educational component.

<i>Model 3</i>		
Sample Job Titles/Classification	Requirements and Qualifications for Entry	Means to Identify, Assess, and Prepare a Pool of Qualified Candidates
<ul style="list-style-type: none"> • Clinical laboratory scientist • Specialty imaging • Specialty nursing • Medical laboratory technician 	<ul style="list-style-type: none"> • All requirements in Models 1 & 2 are applicable • Current licensure • College or graduate degree (depending on employer and state requirements) • Proven work experience in health care 	<ul style="list-style-type: none"> • Partner with current healthcare employers to identify incumbent workers • Partner with unions, training funds, and/or educational institutions who are willing to provide the necessary education components • Partner with employers who are willing to invest in time spent in training to build a qualified pool of workers

Section 8: Performance Standards and Outcomes

An accepted list of health care related performance standards and outcomes does not yet exist because of the lack of long-standing programs in the health care field. However, many of the standards used in traditional apprenticeship programs are transferrable to the health care setting.

Measures identified as having value in recruiting employer and apprentice participation, as well as demonstrating the value of existing programs, include the following:

- **Outcome measures for program participants**
 - Program completion rate
 - Pre- and post- competency assessment
 - Wage growth over time
 - Acquired benefits (health, vision, etc.)
 - Job satisfaction
 - Longitudinal data to demonstrate career growth (future licenses and credentials, promotions)
 - Retention in the field
 - Attainment of license, credential, or certification

- **Outcome measures for employers**
 - Employee job satisfaction
 - Employee retention
 - Impact on workforce vacancies
 - Return on investment
 - Impact on patient experience

- **Outcome measures for programs**
 - Return on investment
 - Retention of participant after one year
 - Retention of participant after five years
 - Participant job growth over time
 - Mentor satisfaction
 - Decrease in workforce gaps
 - Number of employer participants
 - Number of community college/educational partner participants

Conclusion

By addressing the challenges and opportunities outlined in this report, and by advancing and supporting initiatives similar to those featured, California can put the earn and learn model to greater use in the health care industry. As required by AB 1797, this report identifies opportunities to do so, lays out general requirements for program entry, suggests functional outcome measures, and addresses the preparation of candidates. But this document — as a snapshot in time of a rapidly evolving field of practice — should serve as the starting point for a larger discussion about the expansion of earn and learn models in health care. Adapting the apprenticeship model to the unique structure of the health care industry will only be possible through a focused and collaborative effort among state policy makers, health care employers, worker representatives, workforce development and educational entities, and other key stakeholders.

Appendix A: Literature Reviewed

21st Century Registered Apprenticeship. (2013, January). *Outeducate, outbuild, outinnovate. A Shared Vision for Increasing Opportunity, Innovation, and Competitiveness for American Workers and Employers.*

29 CFR §29.5(b)(2)(iv)

Assembly Bill 1797 (Rodriguez; Statutes of 2014).

Apprenticeship Carolina. (2012, November). *Apprenticeships Make a Comeback in the United States.* Retrieved from <http://www.apprenticeshipcarolina.com/press/apprenticeships-make-a-comeback.html>

Apprenticeship Standards of the California Division of Apprenticeship Standards. (2015, July 21). *DAS-51 JAC Single Occupation.*

Barkley, L., Voll, M., (2008). *The President's High Growth Job Training Initiative Health Care Grant: Career Prescriptions for Success (CAPS) Employer Handbook.* U.S. Department of Labor Employment and Training Administration. CVS Pharmacy. Retrieved on https://wfsolutions.workforce3one.org/ws/wfsolutions/files/001/2000914150131264288_hg028-1.1_cvs_handbook20pg_lrnologo.pdf

California Department of State Hospitals. (n.d.) *Psychiatric Technician Apprenticeship Training Program.* [website]. Retrieved from <http://www.dsh.ca.gov/napa/Internships.asp>

California Labor Code §3700.

California Labor Code §3078.

California Hospital Association. (2011, February). *Critical Roles: California's Allied Health Workforce.* Retrieved from http://www.calhospital.org/sites/main/files/file-attachments/FINAL.Critical_Roles.Feb_.9.2011.pdf

California HealthCare Foundation. (n.d) *California's Health Care Workforce.* [website]. Retrieved from <http://www.chcf.org/publications/2014/03/california-workforce>

California Long-Term Care Education Center. (2015, August 21). *Home Care Integration.*

California Workforce Investment Board. (2015, April). *Workforce Accelerator Fund 2.0 Request for Applications.* Retrieved from http://cwdb.ca.gov/res/docs/Workforce_percent20Accelerator_percent20Fund/WAF2.0_percent202015/WAF2.0RFA_FINAL.awdocx.pdf

- California Workforce Investment Board. (2012, December). *Apprenticeship as a Critical Component of an "Earn and Learn" Job Training Strategy in California*. Retrieved from <http://www.dir.ca.gov/DAS/reports/WhitePaperApprenticeship.pdf>
- California Workforce Investment Board. (n.d.) *SlingShot: Accelerating Income Mobility through Regional Collaboration*. Retrieved from <http://cwdb.ca.gov/res/docs/SlingShot/1SlingshotOverview415L.pdf>
- Canadian Apprenticeship Forum. (2009). *It Pays to Hire an Apprentice: Calculating the Return on Training Investment for Skilled Trades Employers in Canada. Phase II Final Report*. Retrieved from http://apprenticeshippays.com/english_flash/PDFeng/CAF-Roti.pdf
- CareerOneStop. *Competency Model Clearinghouse*. [website]. Available at <http://www.careeronestop.org/competencymodel/>
- Choitz, V. et al. (2015). *Improving Jobs to Improve Care*. The SEIU Healthcare NW Training Partnership. Retrieved from <http://www.aspenwsi.org/wordpress/wp-content/uploads/SEIU-CaseStudy.pdf>
- Diamond, D. (2014, August 1). *Jobs are Growing. Health Care is Booming. So Why Are Hospitals Flat?* Forbes. Retrieved from <http://www.forbes.com/sites/dandiamond/2014/08/01/jobs-are-growing-health-care-is-booming-so-why-are-hospitals-flat/>
- District 1199C Training & Upgrading Fund. (n.d.). *Community Health Worker Apprenticeship: An innovative labor-management partnership model, integrating systems and braiding funding sources to help get the long-term unemployed back to work*. Available at http://www.1199ctraining.org/docs/Newsroom_Reports/CaseStudy_CHW.pdf
- Ecorys, IES and IRS. (2013). *The effectiveness and costs-benefits of apprenticeships: Results of the quantitative analysis*. European Union.
- Fenton Communications. (2009). *Help Wanted: Will California Miss Out on a Billion-Dollar Growth Industry?* Available at http://calhealthjobs.org/system/files/attachments/helpwantedreport_48.pdf
- Graf, L. (2014, December 1). *The Swiss Apprenticeship System*. Johns Hopkins University American Institute for German Studies. Retrieved from <http://www.aicgs.org/publication/the-swiss-apprenticeship-system/>
- Halasz, Ida M., (n.d), *Overview of DACUM Job Analysis Process*. Retrieved from <http://static.nicic.gov/Library/010699.pdf>
- Hoffman, N. (2013, September 10). *Apprenticeships ensure that young people in Switzerland are employable*. Retrieved from <http://qz.com/122501/apprenticeships-make-young-people-in-switzerland-employable/>

- Hollenbeck, K. a.-J. (2006). *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State*. Upjohn Institute Technical Report No. 06-020. Retrieved from http://research.upjohn.org/up_technicalreports/20/
- Howard, K. et al. (2012). *Adapting the EHR Scribe Model to Community Health Centers: The Experience of Shasta Community Health Center's Pilot*. Blue Shield of California Foundation. Retrieved from <http://btw.informingchange.com/uploads/2012/08/Shasta-EHR-Scribes.pdf>
- L.A. Care Health Plan. (2015, July 8). *Board of Governors Meeting #247*. Retrieved from https://www.lacare.org/sites/default/files/073015_percent20BoG_percent20Meeting_percent20Materials.pdf
- Lerman, R. et al. (2009). *The Benefits and Challenges of Registered Apprenticeship: The Sponsors' Perspective*. The Urban Institute Center on Labor, Human Services, and Population. Retrieved from http://www.urban.org/research/publication/benefits-and-challenges-registered-apprenticeship-sponsors-perspective/view/full_report
- Mauldin, B. (2011). *Apprenticeships in the Healthcare Industry*. Retrieved from <http://www.lni.wa.gov/TradesLicensing/Apprenticeship/files/pubs/ApprenticeshipsHealthcareIndustryMauldin.pdf>
- Mathematica Policy Research. (2012). *An Effectiveness Assessment and Cost-Benefit Analysis of Registered Apprenticeship in 10 States*. Retrieved from http://wdr.doleta.gov/research/FullText_Documents/ETAOP_2012_10.pdf
- McConville, S., Bohn, S., and Beck, L. (2014, September). *California's Health Workforce Needs: Training Allied Workers*. Public Policy Institute of California. Page 5. Retrieved from http://www.ppic.org/content/pubs/report/R_914SMR.pdf
- Mollica, J. & Countryman, L. *Transforming U.S. Workforce Development Policies for the 21st Century: A Book for Policy and Practice*. [unpublished draft] Available by request.
- Mullner, R.M. (2009). *Encyclopedia of Health Services Research*. Thousand Oaks, CA: SAGE Publications.
- Reed, D. et. al. (2012 July). *An Effectiveness Assessment and Cost-Benefit Analysis of Registered Apprenticeship in 10 States*. Mathematica Policy Research for DOL-ETA. Retrieved from http://wdr.doleta.gov/research/FullText_Documents/ETAOP_2012_10.pdf
- Shirley Ware Education Center SEIU. (2002, December). *Allied Health Project on Career Ladders: Health Care Path Mapping and Worksite Training Development Project*. Retrieved from <http://www.careerladdersproject.org/docs/The-Career-Ladder-Mapping-Project.pdf>

- Skills for Health. (2011, May). *Improve Quality and Productivity: How Skills for Health can help you develop and transform your workforce*. Retrieved from <http://extranet.skillsforhealth.org.uk/catalogue/SFH-Flagship-E-Brochure.pdf>
- Spetz, J., Trupin, L., Bates, T., and Coffman, J. (2015, June). *Future Demand For Long-Term Care Workers Will Be Influenced By Demographic And Utilization Changes*. *Health Affairs*, vol. 34 (6).
- State of California Department of Industrial Relations. (n.d.) *Division of Apprenticeship Standards - Overview of DAS*. [website]. Retrieved from http://www.dir.ca.gov/das/das_overview.html
- Steinberg, S. and Gurwitz, E. (2014, September 25). *5 Case Studies That Illustrate the Promise of Apprenticeship in the United States*. Center for American Progress. Retrieved from <https://www.americanprogress.org/issues/economy/report/2014/09/25/97772/innovations-in-apprenticeship/>
- Texas Workforce Investment Board. (2013, December). *Registered Apprenticeship [sic] as a Strategy to Meet Employer Demand for Skilled Workers*. Available at [http://gov.texas.gov/files/twic/Registered Apprenticeship.pdf](http://gov.texas.gov/files/twic/Registered_Apprenticeship.pdf)
- Thomas, S. (2015, August 10). *Medical Assistant Apprenticeships Created to Meet Shortage of Workers*. mLive Media Group. Retrieved from http://www.mlive.com/business/west-michigan/index.ssf/2015/08/hospitals_create_tuition-free.html
- Transportation Learning Center. (2009). *Building Effective Education and Training for America's Workers: Issue Briefing*. Retrieved from http://www.transportcenter.org/images/uploads/publications/issue_briefing_redone.pdf
- Transportation Learning Center. (2010). *Transit Partnership Training: Metrics of Success*. Retrieved from http://www.transportcenter.org/images/uploads/publications/Metrics_of_Success_Feb_2010.pdf
- University of California San Francisco Center for Excellence in Primary Care. (2014). *Team Documentation and Scribing Evaluation Toolkit*. Retrieved from http://cepc.ucsf.edu/sites/cepc.ucsf.edu/files/Scribing_percent20Evaluation_percent20Toolkit_percent2014-0701.pdf
- U.S. Department of Commerce. (2015, July 9). *Swiss Companies Bring Long Tradition of Apprenticeships to the U.S. – Creating Jobs, Building Skills, Sharing Prosperity*. [Fact Sheet]. Retrieved from <https://www.commerce.gov/news/fact-sheets/2015/07/swiss-companies-bring-long-tradition-apprenticeships-us-creating-jobs>
- U.S. Department of Labor. (n.d.). *American Apprentice Initiative*. FOA-ETA-15-02. Retrieved from <http://www.grants.gov/web/grants/view-opportunity.html?oppId=270372>

- U.S. Department of Labor. (2014, December 11). *\$100M in grants to transform apprenticeship for the 21st century by expanding training into new high-skilled, high-growth industries*. [Press Release]. Retrieved from <http://www.dol.gov/opa/media/press/opa/OPA20142233.htm>
- U.S. Department of Labor, Bureau of Labor Statistics. (2013, December 19). *Fastest Growing Occupations Table 1.3. Employment Projections Program*. Retrieved from http://www.bls.gov/emp/ep_table_103.htm.
- U.S. Department of Labor Employment and Training Administration. (n.d.) *Using Registered Apprenticeship to Build and Fill Healthcare Career Paths: A Response to Critical Healthcare Workforce Needs and Healthcare Reform*. Retrieved from http://www.doleta.gov/oa/pdf/Apprenticeship_Build_Healthcare_Paths.pdf
- U.S. Department of Labor Employment and Training Administration. (n.d.). *A Quick-Start Toolkit Building Registered Apprenticeship Programs*. Retrieved from http://www.doleta.gov/oa/employers/apprenticeship_toolkit.pdf
- U.S. Department of Labor Employment and Training Administration. (n.d.). *The Federal Resources Playbook for Registered Apprenticeship*. Retrieved from <http://www.doleta.gov/oa/federalresources/playbook.pdf>
- U.S. Department of Labor Office of Apprenticeship. (2014, June). *Report on Industry Roundtable Discussions*. Retrieved from http://www.doleta.gov/oa/pdf/OA-Industry-Roundtable-Summary_20140728r1.pdf
- Westervelt, E. (2012, April 4). *The Secret To Germany's Low Youth Unemployment*. National Public Radio. Retrieved from <http://www.npr.org/2012/04/04/149927290/the-secret-to-germanys-low-youth-unemployment>

Appendix B: List of Interviews

Organization	Date	Name	Job Title
SEIU United Healthcare Workers West	7.29.15	Rebecca Miller	Director of Workforce Development
The Worker Education & Resource Center (WERC)	7.30.15	Diane Factor	Program Director
California Hospital Association	7.30.15	Cathy Martin	Vice President, Workforce Policy
California Primary Care Association	7.30.15	Beth Malinowski	Assistant Director
California Primary Care Association	7.30.15	Noah Painter	Associate Director
California State Assembly, Office of Assemblymember Rodriguez	8.10.15	Shanna Ezzell	Legislative & Press Aide

The California Department of Industrial Relations Division of Apprenticeship Standards	8.10.15	Don Merrill	Area Administrator
Healthcare Career Advancement Program (H-CAP)	8.11.15	Laura Chenven	Director
Vermont HITEC	8.11.15	Gerry Ghazi	President, Chief Executive Officer, Chief Academic Officer, Faculty
SEIU Healthcare NW Training Partnership	8.12.15	Charissa Raynor	Executive Director
Service Employees International Union, SEIU	8.12.15	Kimberly Austin-Oser	Deputy Director of Healthcare Workforce Development
United States Department of Labor Employment and Training Administration Office of Apprenticeship	8.13.15	Rick Davis	California State Director
Homebridge	8.14.15	Margaret Baran	Executive Director
Homebridge	8.14.15	Mark Burns	Deputy Director
CVS	8.18.15	Lena Barkley	Lead Manager, Workforce Initiatives

Shasta Community Health Center	8.19.15	Charles Kitzman	Chief Information Officer
The District 1199C Training & Upgrading Fund	8.19.15	Cheryl Feldman	Executive Director
California Workforce Development Board	8.20.15	Sarah White	Deputy Director Strategy, Innovation, and Regional Initiatives
California Long-Term Care Education Center	8.21.15	Corinne Eldrige	Executive Director
Sutter Health	8.24.15	Anette Smith-Dohring	Workforce Development Program Manager
The California Department of Industrial Relations Division of Apprenticeship Standards	8.3.15	Diane Ravnik	Chief
SEIU UHW West & Joint Employer Education Fund	8.4.15	Runkel	Associate Director

California Community College Chancellors Office	8.5.15	John Dunn	Program Specialist
Health Workforce Initiative, Workforce and Economic Development Program, California Community College Chancellor's Office	8.5.15	Linda Zorn	Sector Navigator/Statewide Director
California Labor Federation	8.6.15	John Brauer	Executive Director of Workforce and Economic Development
Jewish Vocational Services	8.6.15	Abby Snay	Executive Director
Jewish Vocational Services	8.6.15	Lisa Countrymen	Director of Program and Grants Development
HR Dowden & Associates	8.7.15	Hellan Dowden	Chief Executive Officer

Career Ladders Project	9.16.15	Linda Collins	Executive Director
Career Ladders Project	9.16.15	Mike Williamson	Senior Technical Consultant
1199SEIU Training & Employment Funds	9.2.15	Rebecca Hall	Assistant Director
CVS	9.2.15	Michelle Voll	Consultant
Kaiser Permanente	9.21.15	Zeth Ajemian	Director, Workforce Planning & Development
Kaiser Permanente	9.9.15	Bram Briggance	Senior Consultant, Workforce Planning
California Association of Psychiatric Technicians	10.2.15	Carol Wiesmann	Consultant

Appendix C: Commonly Used Acronyms

CHW – Community Health Worker

CWDB – California Workforce Development Board (formerly called CWIB)

CWIB – California Workforce Investment Board (now called CWDB)

DAS – California Division of Apprenticeship Standards

DOL-OA – United States Department of Labor Office of Apprenticeship

JVS – Jewish Vocational Service

SEIU- Service Employees International Union