

CALIFORNIA STATE UNIVERSITY  
**LONG BEACH**



## **Highway Construction Apprenticeship Development Guide**

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CENTER FOR INTERNATIONAL TRADE & TRANSPORTATION

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*HIGHWAY CONSTRUCTION APPRENTICESHIP DEVELOPMENT GUIDE:  
HIGHWAY CONSTRUCTION WORKFORCE PILOT (HCWP) PROGRAM BEST  
PRACTICES*

## **FHWA CENTER FOR TRANSPORTATION WORKFORCE DEVELOPMENT: SUMMARY OF THE HCWP PARTNERSHIP**

The highway industry continues to have great difficulty identifying, training, and placing individuals into highway construction jobs. Industry surveys show that as many as eighty percent of highway contractors have trouble finding qualified workers. A compromised workforce limits the industry's ability to deliver a safe and efficient highway system.

In the fall, 2016, a consortium of leading industry organizations including the Associated General Contractors of America (AGC), the American Road and Transportation Builders Association (ARTBA), the American Association of State Highway and Transportation Officials (AASHTO), and the Federal Highway Administration (FHWA) began discussions with US Department of Labor Employment and Training Administration (ETA) to explore how the workforce system and highway industry could work together to address the workforce challenge. ETA manages the nation's public workforce system and is organized into six geographic regions that, through the Workforce Innovation and Opportunity Act, supports 600 State and local Workforce Development Boards, 2500 American Job Centers, and provides competitive grants for workforce development.

In January 2017, the highway organizations and ETA established a National Partnership, and a two-year Highway Construction Workforce Pilot. The Pilot included six cities; Atlanta, Pittsburgh, Dallas, St. Louis, Denver, Los Angeles, and six states; Rhode Island, Connecticut, Alabama, South Dakota, Arizona, Idaho. Each location established a Working Group composed of industry and workforce system representatives that worked together to identify and implement successful workforce practices and programs.

The Pilot concluded on December 31, 2018 and has transitioned to the Highway Construction Workforce Partnership (HCWP) as a National program to encourage highway organization representatives, Workforce Development Boards, and other key partners to establish HCWP Working Groups in cities and states throughout the US. Pilot program organization, operation and workforce practices are highlighted in a "Playbook" as a guide for other highway and workforce system representatives to establish HCWP Programs. The Playbook is available at:

[https://www.fhwa.dot.gov/innovativeprograms/centers/workforce\\_dev/hcwp/playbook/](https://www.fhwa.dot.gov/innovativeprograms/centers/workforce_dev/hcwp/playbook/)

## OBJECTIVES OF THIS GUIDE

This Guide is intended to enhance and update FHWA's Roads To Your Future Playbook with information gathered from the HCWP Programs (Pilot Programs). The Guide may also serve as a standalone companion piece. Pilot Program profiles are included in the deliverable.

The term "apprenticeship" in this Guide can be viewed broadly as union, non-union, Pre-Apprenticeships, Department of Labor Registered Apprenticeships (RAs), Industry-Recognized Apprenticeships (IRAPs), or other apprenticeship-like workforce development programs. This Guide will elucidate directives in the Playbook by providing actionable and proven best practices from the Pilot Programs. Embedded in these practices are strategies to address barriers and obstacles to highway construction workforce development. An infographic is included that shows approximately how long each segment of the highway construction workforce development programming takes to develop.

## METHODOLOGY

CITT conducted semi-structured interviews via telephone with the Working Groups/Task Forces of ten of the twelve HCWP pilot locations. (The interview questions are included in this deliverable packet.) Working Group members included FHWA Civil Rights Managers, labor representatives, industry association representatives, FHWA and State DOT staff, workforce development agencies, community college partners, and in one case, city and county economic development staff. ETA apprenticeship development guidelines informed the structure for the data gathering and serves as the foundation for this Guide. Our research also relied upon expertise in workforce development generated by our years at Southwest Transportation Workforce Center (SWTWC).

## TERMINOLOGY

Please note that the inclusive language used to describe a population of individuals is derived regionally. One population of individuals may be referred to in multiple ways. For example, individuals who have been previously incarcerated may be referred to as "second-chance individuals" or "re-entry individuals" depending on the location of the pilot. Also note that highway construction can also be referred to as "heavy civil" construction.

## STRUCTURE OF THE GUIDE

The Guide discusses Partnerships, Targeted Occupations, Instruction and Curricula (Related Technical Instruction and OJT), Wraparound or Supportive Services, Outreach, Retention Strategies, and Strategies for Sustainability. "Lessons learned" by Pilot Programs are implicit throughout this Guide. The strategies are assigned a location in the Playbook, depending on the content. **(Suggested placements for content are written in blue text.)**

## HCWP PILOT PROGRAM PROFILES

Ten of the twelve HCWP Pilot Program profiles are included in this Guide. The profiles highlight best practices each Pilot Program employed to develop the heavy highway construction workforce. Each Pilot Program Working Group/Task Force vetted the attached profiles. Profiles also include information regarding the content and design of Related Technical Instruction (RTI) and On-the-Job (OJT) curricula as

well as overall project design. Contact information for Working Group/Task Group team leaders is included for further information regarding specific programs.

#### BIBLIOGRAPHY OF ADDITIONAL RESOURCES FOR BUILDING APPRENTICESHIPS

This deliverable packet also includes further resources on best practices for outreach, assessment, training and advancement, and retention for women in construction, including reports from the National Center for Women's Equity in Apprenticeship and Employment Site and the Contractor Equity Survey.



## BUILD SUSTAINABLE, COLLABORATIVE PARTNERSHIPS

### (Play 2, Organize Your Players for Success)

#### IDENTIFY PARTNERS

Collaborative partnerships require structure with intentional and consistent communication and coordination. All partners need to learn the functions and goals of each collaborating agency or organization.

#### DEVELOP A WORKING GROUP/TASK GROUP CHARTER

A common operating charter is a best practice for collaborative partnerships. Charters can identify partnership organizational structure and provide avenues for communication, dissent, and conflict resolution. This Charter will elucidate the process of aligning strategies and developing collective outcomes.

#### ESTABLISH AN INTERMEDIARY

An intermediary ensures efficiency, less wasted effort, and greater communication and accountability among the partners, which in turn leads to improved program outcomes. Identify the intermediary in the Charter.

#### USE SHARED PLATFORMS FOR COMMUNICATION

Shared technology offers better alignment among partners; for more effective communication and coordination, it is best to use a platform common to all parties. If operating on different platforms, the databases should be able to communicate with each other. There is less possibility that tasks are duplicated or compartmentalized. Overall, shared metrics and database access increases accountability.

#### JOINTLY DEVELOP SCOPES OF WORK (SOW) AND MEMORANDA OF UNDERSTANDING (MOU)

All stakeholders – labor, training and education, industry, workforce development and community-based nonprofit organizations, and other partners should develop MOUs and SOWs jointly so there is a clear understanding of roles and responsibilities in the apprenticeship development process. In line with this goal, focusing on a local highway or other infrastructure project can be an impetus for stronger collaboration and allows the partnership to work towards meeting local industry needs. Jointly agree upon Key Performance Indicators (KPIs).

#### INTRODUCE WORKFORCE LANGUAGE IN CONTRACTS AND MEMORANDA OF UNDERSTANDING WITH EMPLOYERS/INDUSTRY

Introduce workforce language in contracts after negotiation to make training and hiring intentional, targeted, and with mutually agreed upon outcomes. Examples include metrics of number or percentage of hires expected after a career exploration/job hiring event or completion of training program.



## FOCUS ON FUNDAMENTALS

### (Play 3)

#### ISSUE CERTIFICATES AND CERTIFICATIONS

A primary goal of pre-apprenticeship training is offering industry-recognized credentials that will add value to the participant when job searching. The most common certifications offered through the Pilot Program training programs are OSHA-10, OSHA-30, and CPR AED. Also offered are Flagger Certification, Dig Safe Certification, and OSHA Fall Protection.

#### PROVIDE WORK-RELATED EQUIPMENT

Providing equipment for participants is a widely cited service among the HCWP pilots: Personal Protective Equipment (PPE) bag with a hard hat, safety glasses, and work gloves. Some participants also received boots and tools for specialized training. Funding for equipment can come from industry associations and from donations from vendors.

## ASSESS YOUR LOCAL NEEDS

### (Play 3)

#### CONDUCT A WORKFORCE NEEDS ASSESSMENT

Conduct a workforce needs assessment that also measures job readiness in the community. Best practices for survey assessments include 1) clearly defining and identifying goals and recommendations for connecting local residents to employment; and 2) maximizing responses by strategically targeting potential participants, using high touch strategies (repeat phone calls and emails from members of the same organization after deployment). One Pilot Program based the assessment on skillsets rather than on occupation.



## COMMUNICATE THE VALUE OF HIGHWAY CONSTRUCTION CAREERS

### (Play 4)

BEGIN DISCUSSIONS WITH PARTICIPANTS WITH THE END IN MIND

Provide the entire picture of the occupation through site visits and mentor relationships so participants can make informed decisions about what trade(s) they are interested in pursuing.

ASSIST POTENTIAL PARTICIPANTS IN CHOOSING THE TRADE THEY WOULD LIKE TO ENTER

A common refrain from Pilot Programs was that potential participants often do not know what trade they would like to enter. Los Angeles' South Bay Workforce Investment Board job counselors divide potential participants into three categories: 1) those without construction work experience for Pre-Apprenticeship; 2) those with some work experience, but no union connection; and 3) union members. This addresses applicants' need to identify possible career pathways so that primary, secondary, and union options are discussed.

WORK WITH "INFLUENCERS" SUCH AS SOCIAL WORKERS, GUIDANCE COUNSELORS, MENTORS

Cross train outreach staff to understand the benefits of entering highway construction training programs. Building the staff's construction knowledge strengthens the pathway for participants to follow. One obstacle identified by a Pilot Program was that the K12 system they worked with had bias against construction jobs partly because the state's benchmark metrics included number of graduates who entered college. This bias against Career Technical Education is nationwide and deep-rooted. Workforce development efforts include teaching influencers the value of a career in the trades.





## **BRING COMMUNITY COLLEGES, ADULT EDUCATION PROGRAMS, AND COMMUNITY-BASED ORGANIZATIONS INTO THE GAME**

### **(Play 6)**

#### **PARTNER WITH COMMUNITY COLLEGES**

Funding of tuition and several wraparound services are offered such as SNAP, TANF, reimbursement for books, childcare and access to transportation. This allows training to be a more affordable option for participants.

#### **PARTNER WITH COMMUNITY-BASED ORGANIZATIONS**

Community partner organizations increase connectivity, insight, and influence for targeted training and hiring.

#### **DIRECT PARTICIPANTS TO ADULT EDUCATION PROGRAMS**

Adult education programs provide high school diploma or high school equivalency programs, English language courses, and contextualized math and language courses for workforce preparation. Workforce-related terminology is included in some programs. Adult education programs also provide a market to recruit potential apprentices.



## ADDITIONAL BEST PRACTICES TO ADD TO THE PLAYBOOK

### IDENTIFY TARGETED HIGHWAY CONSTRUCTION JOBS

Heavy Equipment Operators (HEO)s, first line supervisors, carpenters, line installers, pipe layers, laborers, truck drivers, cement finishers, operating engineers, heavy civil mechanic, crane operators, asphalt paving, construction project managers, superintendents.

### DEVELOP RELATED TECHNICAL INSTRUCTION AND OJT CURRICULA

Refer to Pilot Program Profiles for specific information regarding the content and design of RTI and OJT curricula.

ISSUE JOURNEYMAN AND JOURNEYWOMAN CARDS (SEE RETENTION STRATEGIES FOR MORE INFORMATION)

### STRATEGIZE FOR OUTREACH

Strategizing outreach to potential participants is especially critical during this time of low unemployment and high attrition rates from retirement.

#### TARGET AREAS WITH LOW SOCIOECONOMIC MOBILITY AFFECTED BY CONSTRUCTION

In 2015, Colorado DOT was selected for a Local Labor Hiring Preference (LLHP) provision on the Central 70 Project so that construction-impacted environmental justice communities could gain economic and educational opportunities. Although local hire preferences are prohibited in FHWA regulations, a pilot under SEP14 was allowed for a period of five years (80 FR 12257). Employers and stakeholders cited the development of a more skilled local construction workforce as a primary benefit of the LLHP. Local hire candidates were defined by geographic criteria.

#### EMBRACE A “NO WRONG DOOR” POLICY

Everyone seeking training and employment will be counseled. If the “fit” is not right for a participant in a certain trade or program, another avenue should be provided.

#### USE SOCIAL MEDIA AND TRADE AND CONSTRUCTION BLOGS

Using Facebook in three major cities, South Dakota was able to reach over 5,000 people.

In Rhode Island, graduate tradeswomen continue to use social media to reach potential participants.

Idaho’s Heavy Equipment Operator (HEO) program was promoted to local unions and community groups. After a local newspaper article about the program was picked-up by the Associated Press, the program received coverage on local radio, several newspapers and industry blogs, and two television stations. From there, industry advertised the program. In total, ITD received 770 responses, reviewed 678 applications, and interviewed over 150 applicants from multiple states and countries for 20 positions. Testimonials from graduates about their success can bolster future marketing.

#### USE APPS

More than 25,000 individuals have downloaded the Future Road Builders app, which amounts to about 20-25 downloads per day. The latest marketing campaign was two videos; one was more general, and the other was specifically targeted to women via Facebook. This video showcases a female apprentice who played Future Road Builders through the Intro to the Trade pre-apprenticeship program and won Apprentice of the Year. During the first year, twenty-three percent of 1,000 construction apprenticeship participants who took an apprenticeship test became aware of the apprenticeship program through Future Road Builders. Thirty-seven individuals (or 22% of those who were accepted into the apprenticeship) played Future Road Builders.

To reinforce Denver's Central 70 Project's overarching goal of providing equitable employment opportunity pathways for all, a skills-based hiring platform for construction employers and workers called Trade Skills Match (TSM) was developed. Candidates create a virtual profile on TSM via the app or website that outlines their skills and experience; the candidate's name and address are hidden until the candidate accepts an invitation from an employer to apply. Employers search the TSM database for potential workers and invite candidates to apply, or employers may create job postings that will match employers to candidates. TSM Project Partners are able to message candidates that have indicated an interest in working on the Partner Project and are able to utilize a reporting system to see employer and candidate interactions regarding the Partner Project.

#### USE EMPLOYMENT PLATFORMS

WORKNOW is an employment platform presented by Colorado Resource (CORE) Partners. WORKNOW activities are separated into three major categories: 1) Targeted Outreach and Recruitment, 2) Training and Job Readiness, and 3) Placement and Retention. WORKNOW Navigators inform, assess, connect, and advance job candidates from pre-training to 30-days after employment. Their focus is on connecting members to training, placement opportunities, and support services to foster community-centered hiring on regional infrastructure projects.

#### USE BANNERS ON CONSTRUCTION SITES TO MARKET AND RECRUIT

##### ASK INCUMBENT PARTICIPANTS TO RECRUIT AT A VARIETY OF LOCATIONS

Target fast food, retail, distribution and warehouse workers, and veterans. Word-of-mouth and informal networking are effective strategies to recruit. Recruit at community service organizations and social service agencies, such as daycare and housing centers.

#### RECRUIT AT ADULT EDUCATION PROGRAMS, COMMUNITY COLLEGES, AND AT CORRECTIONAL FACILITIES FOR MEN AND WOMEN

##### FIND TRACTION WITH NICHE CONTRACTORS ASSOCIATIONS

Dallas first found traction with the Dallas Regional Black Contractors Association (RBCA) then the Regional Hispanic Contractors Association (RHCA), organizations that include many heavy civil construction stakeholders who have historically worked on highway construction, operations, and maintenance. RBCA has focused on second chance candidates and is successfully moving them into the workplace with a large group of construction employers.



## PROVIDE WRAPAROUND OR SUPPORTIVE SERVICES

### ASSIST WITH TRANSPORTATION OBSTACLES AND DRIVER'S LICENSE REINSTATEMENT

Lack of transportation can be a major barrier to success. The following strategies have been identified as successful:

- Place participants within a 10-mile radius of home
- Place participants in "background friendly" communities, sites, and locations. "Background friendly" refers to employment locations that will overlook certain prior justice-involvement incidents.
- Provide carpool opportunities on contractor yards near participant homes
- Direct participants to car auctions
- Provide gas cards or reimbursement
- Provide Uber/Lyft accounts
- Provide transit tokens
- Assist with reinstating driver's licenses (participants can be referred to the public defender's office or nonprofit or pro bono organizations that provide license restoration services)

### PROVIDE ACCESS TO CHILDCARE

Rhode Island found that a barrier to retaining women who are interested in the program is a lack of childcare, especially childcare that is available at or before 6:00 AM. One benefit of utilizing community colleges as an educational partner is that many community colleges are able to offer childcare services. Other means of assisting with childcare include providing opportunities for reimbursement of childcare expenses.

### PROVIDE INFORMATION FOR ACCESSING SNAP AND TANF BENEFITS, SUPPLEMENTAL NUTRITION AND HEALTH INSURANCE

### PROVIDE INFORMATION ABOUT SUBSTANCE-ABUSE DISORDERS AND TREATMENT

### PROVIDE A HIGH SERVICE PROVIDER TO PARTICIPANT RATIO

Los Angeles' construction workforce development program provides a 1:1 ratio of counselor to participant. Other Pilot Programs reported having case managers, social workers, and licensed clinicians, some on site.

### CO-LOCATE SERVICES

Co-locating services allows everything to be in one place so that all services are completely accessible during outreach, training, and retention periods. Co-location means that a participant cannot leave the premises without seeing everything that is offered and available to them, including supportive services.

PROVIDE ACCESS TO FINANCIAL LITERACY AND HOME-BUYING EDUCATIONAL SESSIONS

One Pilot Program manager mentioned that the Davis-Bacon rate for a heavy civil construction worker in California is \$51 per hour (depending on the occupation), including benefits. Once participants start earning a family-sustaining wage, financial literacy including information on home buying will assist in building capital for the participant.



## DEVELOP RETENTION STRATEGIES

### PROVIDE A MULTI-LAYERED SUPPORT SYSTEM

Leverage and use services from varying agencies and organizations. The Working Group Charter can identify these services so that providers are aware of expectations.

### DEVELOP PROGRAMS WITH ARTICULATION AGREEMENTS IN MIND

Articulation refers to showing participants how to advance from one step to the next in a career pathway. Pittsburgh's HCWP created a pre-apprenticeship app called Future Road Builders that prepared participants to enter Pittsburgh Job Corps' eight-week highway construction program. Once participants complete this eight-week program, they can enter year two of the four-year Laborers Union anywhere in the country.

### USE CERTIFICATIONS AND CERTIFICATES AND JOURNEYMAN AND JOURNEYWOMAN CARDS TO MOTIVATE PARTICIPANTS

Arizona HCWP participants receive Journeymen and journeywomen cards if they complete a set number of apprenticeship training. This card will give them access to union jobs, including benefits and further training.

### INCREASE EMPLOYABILITY WITH HEAVY EQUIPMENT OPERATOR/CDL TRAINING

Offer a combination of commercial driver's license (CDL) (Class A, 160 hours) and heavy equipment operator (HEO) training so participants have skills for construction slowdown months in the winter. Further, a CDL allows participants to be a highly valued employee who can both operate and transport equipment. Combination of HEO and CDL skills is a strong asset to industry for retention. Sometimes, once a participant receives CDL training, he/she leaves and does not complete the HEO portion. It is best to offer the joint program with CDL at the end of the program (rather than first) to retain participants.

### EXPOSE PARTICIPANTS TO HIGHWAY CONSTRUCTION ACTIVITIES TO KEEP INTEREST HIGH

Provide site visits, speaker series, career exploration events, and job fairs to keep participants interested in training.

### TRAIN FOR MULTIPLE CRAFTS, INCLUDING VERTICAL (BUILDING) CONSTRUCTION

Training for multiple crafts increases employability, supports workforce development initiatives, and increases program utility. Pilot Programs encouraged participants to learn different trades to increase their marketability upon program completion.



## PLAN FOR SUSTAINABILITY AND REPLICABILITY

### PLAN TO REPLICATE PROGRAMMING

South Dakota's HCWP pilot involves Train-the-Trainer strategies to ensure there is a steady supply of Subject Matter Expert instructors for future career exploration training events.

### BUILD LEADERSHIP SKILLS AMONG PARTICIPANTS AND GRADUATES

Building Futures has demonstrated great success in the leadership development of female graduates by enabling alumna to provide support for HWCP programming, mentor to women new to the building and construction trades, and advocate for diversity and equity industry-wide. Building graduate leadership is critical to support the retention of women and minorities in the trades. As female graduates build their leadership, they are better equipped to support new workers and to model success for nontraditional workers. The program sent six tradeswomen graduates to the national building trades-sponsored Women Build Nations conference in Minneapolis, Minnesota for leadership development. By building the leadership capacity of tradeswomen, the program is working toward their goal of ensuring trade unions are committed to and actively addressing inclusivity for women and minorities in construction occupations.

# TIMELINE



## Partnerships

**EIGHTEEN MONTHS TO TWO YEARS**



## Assessment

**SIX TO EIGHT MONTHS**

BUILD SURVEY	TWO MONTHS
CONDUCT SURVEY	THREE MONTHS
DEVELOP REPORT	TWO MONTHS



## Training

**SEVEN MONTHS TO ONE YEAR**

DEVELOP TRAINING	THREE — SIX MONTHS
OUTREACH	THREE MONTHS — ONGOING
DELIVER TRAINING	ONE MONTH — SIX MONTHS





## CONCLUSION

The intention of this Guide, together with the HCWP Pilot Profiles, is to enhance and add to FHWA Center for Transportation Workforce Development's "Identify, Train, Place" strategies for highway construction workforce development nationally. New Working Groups/Task Forces who are starting the process of highway apprenticeship development have a solid foundation to develop their own programs using the resources provided with these deliverables.



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## HCWP Interview Questions

### **PURPOSE**

*The purpose of the interview is to document best practices as well as barriers to developing highway construction apprenticeship programs based on your program data. Apprenticeships can be viewed broadly as union, non-union, Pre-Apprenticeships, Department of Labor Registered Apprenticeships (RAs), Industry-Recognized Apprenticeships (IRAPs), or other apprenticeship-like workforce development programs.*

### **BEST PRACTICES:**

Please describe best practices and lessons learned that you would recommend for other highway construction workforce development programs, based on your experiences with the HCWP.

### **TARGETED OCCUPATIONS:**

How did you choose the occupations for your program?

### **HIGHWAY CONSTRUCTION PROJECTS:**

Are there local highway construction projects that are easily accessible to program participants?  
Are any local hire agreements available in your area?

### **PARTNERSHIPS:**

Who are your industry partners?

What are their roles?

Who are your educational and training partners?

What are their roles?

Please describe the classroom instruction component of your program.

Please describe the OJT portion.

What partner program strategies were most effective, and why?

### **FUNDING:**

Please describe funding for your program.

**WRAPAROUND SERVICES:**

What wraparound services did you provide participants?

If wraparound services were provided, what agency or organization provided these services?

**OUTREACH:**

What measures were taken for outreach?

What population/demographic was outreach geared toward, if any?

**RETENTION STRATEGIES:**

Please describe any participant retention strategies used.

**METRICS:**

How many people entered the program?

How many people completed the program?

How many cohorts completed the program?

**CERTIFICATES:**

Were any certifications offered as part of the program's curriculum?

**OBSTACLES:**

Did you face any obstacles or barriers in developing this pilot program?

Did you face any obstacles or barriers in implementing this pilot program?

How do you suggest overcoming these obstacles or barriers?



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## ALABAMA HCWP: HEAVY HIGHWAY ROAD CONSTRUCTION OJT AND CDL TRAINING PILOT PROJECT

### **Overview**

Alabama's Heavy Highway Road Construction OJT (and CDL) Training Pilot Project program curriculum was initially developed by Alabama Industrial Development Readiness Training (AIDT). The Alabama Community College System (ACCS) and industry partners reviewed and revised the curriculum's materials to ensure they would be beneficial for participants as well as businesses that may hire candidates who have successfully completed the program. The program is administered by Bishop State and Trenholm State Community Colleges.

AIDT is a workforce development agency that provides recruitment, screening, selection, and assessment services through pre-employment and on-the-job-specific training programs to employers and trainees at no cost. Programs are customized to meet specific needs and include leadership and technical training programs. While AIDT developed a road builder curriculum for the Heavy Highway Road Construction OJT Pilot Project, Alabama Community Colleges provide the additional curriculum, location, and instructors, as well as grant funding of tuition. The program incorporates industry-recognized credentials and includes skill training in time management, financial literacy, and interviewing. The program also focuses on road hazard safety, dump safety, and OJT training with a dump truck.

### **HEO and CDL Training**

Heavy Equipment Operator for Road Construction was chosen as the target occupation because the Alabama Roadbuilders Association (ARBA), Alabama Associated General Contractors (ALAGC), and Alabama DOT confirmed this is a high demand for Alabama. A best practice is to offer a combination of commercial driver's license (CDL) (Class A, 160 hours) and heavy equipment operator (HEO) training so participants have skills for construction slowdown months in the winter. Combination of HEO and CDL skills is a strong asset to industry for retention. Further, producing multi-skilled individuals increases opportunities for both the individual and employer. A CDL allows participants to be a more complete employee, one who can both operate and transport equipment. This allows the participant to build on success through multiple pathways, giving them confidence and the opportunity to earn multiple credentials. The upshot of this is that these individuals may take on more responsibility and gain potential for wage increase.

Through previous and ongoing experience, the ACCS learned that if a participant receives CDL training on the front end of the program, there is a very high likelihood she/he will not complete the HEO portion. It is best to offer the joint program with CDL training at the end of the program (rather than first) to retain participants. Part of the reason for this is that individuals will participate in a CDL class and be offered employment contingent on successful completion of CDL training and subsequent licensure. On top of this, the person is typically offered a sign-on bonus. Sometimes the sign-on bonuses can be up to \$10,000. Therefore, the training is intentionally structured to provide a pathway for success for each business or industry by offering foundations to build on.

### **Program Structure, Curriculum, and Certifications**

The curriculum includes National Center for Construction Education and Research (NCCER) Core Curriculum (a pre-requisite to all other Level 1 Craft Curriculum: Basic Safety, Communication Skills, Introduction to Construction Drawings) in preparation for NCCER Heavy Highway Construction Level 1 credential, as well as Multi-Craft Core Curriculum (MC3). Further, the program uses WorkKeys assessments in applied math, graphic literacy, and workplace documents. Students will spend afternoons at school and mornings in paid OJT training that will be provided by six industry companies. The OJT, or Work-Based Learning (WBL), portion will provide at least 25 hours of Heavy Equipment Seat Time. Funding for this is provided by employers. The program is fast-tracked to be completed in 24 weeks at 19 hours per week. Along with CDL and NCCER Core training, students receive OSHA 10 and ATSSA Flagger certifications. Students can continue to employment with additional training and development that is provided by highway construction employers and/or through the Alabama Community Colleges.

### **Outreach and Planning**

The targeted number of participants is up to 15 students per college for the pilot project. Outreach was targeted toward Adult-Ed/GED students through the Alabama Community College System (ACCS), parolees and individuals on probation, and traditional and non-traditional students by Alabama Road Builders Association (ARBA, Alabama Chapter) and Alabama AGC. An initial pilot was launched in February 2019 and completed in March 2019. This pilot was launched before coming to HCWP to determine what ACCS should continue doing to foster partnerships, meet industry-driven needs, and prepare students for success. After working on the details to revamp and solidify the Heavy Highway Road Construction Training Pilot Project, recruitment has begun. The first set of classes will launch in March of 2020, with the first cohort of 15 participants is expected to complete training in August of 2020. The longer range plan is to include HCWP as part of the Governor's economic and workforce development initiative to provide skill development and training to underrepresented, underemployed, and unemployed individuals. There is an opportunity to work with Alabama Office of Apprenticeships (AOA) to establish apprenticeship programs. The end result will be a dynamic, sustainable program that offers a nationally recognized certification.

## **Best Practices and Partnerships**

Other best practices include opportunities for potential reimbursement for wraparound services (such as travel costs and childcare), development and implementation of Key Performance Indicators (KPIs), joint development of documents (MOUs and SOWs), cross-training for additional skills and responsibilities, and employing the Earn While You Learn concept. Relationship building takes time, but is critical. Relationships must be built, turned into partnerships, and remain connected at all points of the project. Other partners include career centers such as the Southwest Alabama Partnership for Training and Employment (SWAPTE), Alabama DOT, FHWA, Alabama Roadbuilders Association, and specifically, industry leaders.

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## DENVER HCWP: LEVERAGING RESOURCES FOR HIGHWAY CONSTRUCTION IN ENVIRONMENTAL JUSTICE COMMUNITIES

### **Overview and Partnerships**

Denver has a strong highway workforce development sector strategy in place with a focus on the Central 70 Project that provides for a comprehensive program for highway career awareness, recruitment, training and placement. Effective subcontractor outreach, engagement, and support—by the Colorado Department of Transportation (CDOT), the Prime’s Workforce Coordinator, Associated General Contractors (AGC), and WORKNOW—will be the most pivotal factor in the success of the Pilot. Other partners include the U.S. Department of Labor, Employment and Training Administration (ETA), American Association of State Highway and Transportation Officials (AASHTO), American Road and Transportation Builders Association (ARTBA), and other stakeholders with FHWA oversight. The main goal of the partnership is to connect job seekers with construction jobs across the industry, so the needs of both job seekers and contractors are equally important.

### **Local Labor Hiring Preference**

In 2015, Colorado DOT was selected for a Local Labor Hiring Preference (LLHP) provision on the Central 70 Project so that construction-impacted environmental justice communities could gain economic and educational opportunities. Although local hire preferences are prohibited in FHWA regulations, a pilot under SEP14 was allowed for a period of five years (80 FR 12257). Employers and stakeholders cited the development of a more skilled local construction workforce as a primary benefit of the LLHP. Local hire candidates were defined by geographic criteria. To target disadvantaged candidates generally would put a strain on limited resources and would take away from the goal of assisting communities affected by construction efforts. Rather, criteria for selected priority zip code areas also included neighborhood demographics, such as above average poverty and unemployment rates. For the target region, informal network sharing and word-of-mouth were effective means of outreach during the initial recruitment stage of the Central 70 Project. Community partner organizations also increased connectivity, insight, and influence for targeted hiring.

### **Needs Assessment**

In 2016, CDOT contracted with Community College of Denver’s (CCD) Center for Workforce Initiatives (CWI) to perform a Community Job Readiness and Workforce Needs Assessment. This assessment effectively defined and identified goals and recommendations for connecting local residents to employment on the Central 70 Project LLHP. According to the workforce survey, the top in-demand



positions in the heavy highway industry sector include laborers, equipment operators, first-line supervisors, line installers and repairers. Because occupation growth is expected for these and other high-employing positions, training and supportive services should align to connect residents to hiring and registered apprenticeship opportunities. One of the values of having training, community, workforce, and employer partners all at the same table is that data can be used to connect services and job openings more efficiently, particularly in positions that are more likely to lead to a sustained career in the industry because of long-term growth.

Further, focus groups identified discrimination as a strong perception of the construction industry. Recruitment and outreach into all levels of career pathways should deliberately include women and people of color. One solution is mentorship to support workers who may feel isolated or underrepresented. Networking and training opportunities further increase and support underrepresented populations entry and advancement in career pathways.

### **Using Training and Community Partnerships to Recruit, Train, and Place Participants**

Colorado Resource (CORE) Partners is a collaboration of training and community resource partners that provide community-focused training services and support for comprehensive construction workforce readiness and career success. WORKNOW is an employment platform presented by Colorado Resource (CORE) Partners. WORKNOW activities are separated into three major categories: 1) Targeted Outreach and Recruitment, 2) Training and Job Readiness, and 3) Placement and Retention. WORKNOW Navigators inform, assess, connect, and advance job candidates from pre-training for up to 18 months after employment. Their focus is on connecting members to training, placement opportunities, and support services to foster community-centered hiring on regional infrastructure projects.

### **Eliminating Barriers and Increasing Retention**

Challenges were identified in implementing a program with a narrow geographic focus in environmental justice study (EJS) neighborhoods. Some target neighborhoods had high levels of undocumented workers, more stable employment levels, interest in other industry sectors or careers, or experienced gentrification that pushed the target population to adjacent neighborhoods. To partially account for this issue, the target geographic region was expanded to include the adjacent neighborhoods with EJS residents while prioritizing the original region.

During the initial phase of the Central 70 Project in 2016, resources were identified to eliminate barriers and increase retention. These resources include transportation assistance, pre-employment orientation, industry work-readiness instruction, access to child care, and access to mentors, coaches, and post-placement supportive services. Increased access to community child care was identified as a funding priority, and emphasis on supportive services post-placement is critical. Further, a need for Adult Basic Education (ABE) and pre-employment training was identified, as well as an earn-and-learn or OJT framework for existing training providers to launch new programming. The ETA's Heavy Highway Career Competency Model is a skills and knowledge primer that was useful during course preparation, which

follows a Competence Based Education and Training (CBET) model. Before taking training classes, participants learn traffic control awareness. Training programs utilizing were officially launched in 2017.

### **Project Management**

A common operating project charter is a best practice for project management. To ensure that work is not being duplicated, work is organized around “task activities,” rather than committee themes. To better communication and coordination, it is best to use a platform common to all parties. If operating with different platforms, the databases should communicate. Overall, shared metrics increases accountability and shared technology betters alignment among partners.

### **Trade Skills Match (TSM): A skills-based hiring platform**

To reinforce Central 70 Project’s overarching goal of providing equitable employment opportunity pathways for all, a skills-based hiring platform for construction employers and workers, Trade Skills Match (TSM), has been developed. Candidates create a virtual profile on TSM via the app or website that outlines their skills and experience; the candidate’s name and address are hidden until the candidate accepts an invitation from an employer to apply. Employers search the TSM database for potential workers and invite candidates to apply, or employers may create job postings that will match employers to candidates. TSM Project Partners are able to message candidates that have indicated an interest in working on the Partner Project and are able to utilize a reporting system to see employer and candidate interactions regarding the Partner Project. This talent development solution was designed and developed by Building Workforce Solutions, L3C.

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## CONNECTICUT HCWP: INTRODUCING HIGHWAY CONSTRUCTION TRADES TO HIGH SCHOOL STUDENTS AND RE-ENTRY INDIVIDUALS

### **Overview**

The Connecticut HCWP is focused on developing trade curriculum in high schools working closely with unions. Other partners include the Department of Corrections (DOC), the Center for Latino Progress, the National Association of Women in Construction, and the Connecticut Construction Industries Association (CCIA). The goal of the program is for participants to complete the pre-apprenticeship program then apply to a trade union apprenticeship program. The initial effort is directed to three high schools. Two high schools have committed to the program with a third expected to participate. The DOC refers re-entry participants into a pre-apprenticeship career exploration program through the Center for Latino Progress in Hartford.

### **Requirements for Program Entry**

Connecticut's program is focused on five major trades: laborers, operators, electricians, carpenters, and iron workers. In order to apply for apprenticeship and be accepted, each trade union has a set of requirements: participants must (1) have a high school diploma or GED, (2) have driver's license, (3) have reliable transportation, (4) be drug free, and (5) be at least 18 years old.

### **Program Design and Content**

The program for high school students is twelve weeks long: one day a week for the twelve weeks. Seven days are spent in the classroom and five days are used for field trips to different training centers. The curriculum includes hands on work such as an excavation safety activity, measuring and designing a community garden, estimation (plot plan) exercises, construction math and understanding elevation drawings. Students are trained using harnesses and personal protective equipment (PPE), fire safety, CPR, work zone safety (including dig safe), and flagging; they receive OSHA-10, Flaggers and PPE certification. A jeopardy-style game is used to teach participants about construction careers. This program has no OJT portion. Each participant received a PPE bag with a hard hat, safety glasses, and work gloves. Some participants received boots and tools for specialized training.

### **Obstacles and Lessons Learned**

Transportation is an obstacle that should be addressed; particularly, ensuring that participants have drivers' licenses or bus passes to get to work sites and to understand the "behind the wheel" training portions. Efforts are underway to educate guidance counselors about the benefits of entering highway

construction occupations and other career pathways available for trades. Strategies suggested include inviting guidance counselors to training facilities to learn the value of careers in highway construction.

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## DALLAS HCWP: PARTNERING CLOSELY WITH MINORITY CONTRACTORS ASSOCIATIONS FOR HEAVY CIVIL CONSTRUCTION

### **Overview and Challenges**

The greatest challenge to the Dallas HCWP is the significant number of workers needed for the construction of the 200-mph bullet train between Dallas and Houston, and a relatively small pool of potential workers for highway construction. Groundbreaking for the bullet train is set for 2020, requires 10,000 workers per year, and is expected to take 4.5 years to complete. Three to four times as much concrete than the Hoover dam will be used as 60% of the rail will be on elevated concrete that is anchored to the bedrock. Clearly, employer competition for heavy civil jobs for highway construction is a critical issue.

### **Target Demographic**

The Dallas HCWP's targeted demographic are second chance individuals, also referred to as re-entry or justice-involved individuals. There is also a focus on Opportunity Youth (ages 18 to 24 who are not enrolled in school or participating in the labor market). The Working Group is focused on identifying effective approaches for outreach and training.

### **Partnerships**

There is strong collaboration among partners including contractor representation that provides critical real-world information on job and training needs. The Dallas Workforce Solutions (Dallas WDB) has extensive experience in training and placement and is developing a good understanding of the transportation sector. Partners include the Dallas Regional Black Contractors Association (RBCA) and the Regional Hispanic Contractors Association (RHCA), organizations that include many heavy civil construction stakeholders who have historically worked on highway construction, operations, and maintenance. Discussions have also been held recently with the Dallas Regional Chamber, TEXO (an AGC organization) and the United Way (local staff) to explore leveraging the construction-related associations together to find common pathways to more effectively move people through the pipeline. Better engagement with TX DOT is foreseen.

### **Training Curriculum and Certifications**

The RBCA was the first place that any traction was found. It kicked off a three-week, 100% OJT- and workforce-funded construction training program that includes OSHA-10 and OSHA-30 certifications. The training includes demolition equipment and clean-up, general construction clean-up, introduction to

carpentry, construction math competency, concrete and landscaping, and soft skills training. The upcoming cohort will be the program's fifth thus far.

### **Next Steps**

RBCA has focused on second chance candidates and is successfully moving them into the workplace with a large group of construction employers. If successful, other employers will be eager and ready to hire, and the program can be replicated with other organizations. RBCA is looking to extend the program to five weeks. This will allow the program to include leadership training and an introduction to the use of technology, such as tablet competencies. Adult Education and Literacy (AEL) training, directed through the college system, is a tool for getting a high school education to those without it. AEL has been a constant source of leveraged funding for the program; WIOA funding may be a potential funding source in the future.

### **Obstacles**

There are some obstacles to overcome with this program. First, Dallas is a large area and training is not extensive enough to cover all projects. Second, there is a problem with workers *keeping* jobs. And finally, there is a need for paid training. Trainees can't afford to be unpaid for three weeks, the duration of the training program. Dallas HCWP's current focus is coordination with contractors, forming partnerships, and increasing entry into the workforce.

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## LOS ANGELES HCWP: NAVIGATION CONSTRUCTION

### **Trades Overview and Partnerships**

South Bay Workforce Investment Board (SBWIB) and six other workforce development boards convened to discuss mega construction projects in the area and the urgent need for qualified pre-apprentices and apprentices for these projects, and to build a pool of qualified workers for highway construction. SBWIB and Coastline Community College (CCC) were selected to initiate a pilot program to fulfil the need for pre-apprentice and apprentice workers for large construction projects and build a qualified workforce for upcoming highway projects. The current focus is on two multi-billion dollar projects identified by SBWIB: the LA Stadium Project/Entertainment Center and the Los Angeles World Airport (commonly referred to as LAX) rental car expansion. There is strong representation from across the partner spectrum including FHWA, Caltrans, Workforce Development Boards, contractors, unions, government, universities, community colleges, and community-based organizations. The South Bay One-Stop Business & Career Center-Inglewood American Job Center of California (AJCC) under the SBWIB administers the Construction & Utilities Pathways Program (CUPP).

### **Outreach, Program Curriculum, and Individualized Pathways**

CUPP's mission is to bring potential workers into the construction industry to provide career pathway counseling, supportive services, and access to training and employment in construction. Information sessions are conducted for potential workers every other Friday night to build a potential local talent pool. Interested candidates receive pathway counseling and access to training through Coastline Community College/Career Expansion, Inc.'s pre-apprenticeship Multi-Craft Core Curriculum (MC3). Candidates are provided with nationally accredited training, including OSHA-30, Fall Protection Awareness, and Confined Space Awareness. The ratio of potential participant to workforce development specialist is 1:1. A key feature of this meeting is that the workforce development specialist discusses with the potential participant the possible union he/she/they would like to join. Potential participants are divided into three categories: 1) those without construction work experience for Pre-Apprenticeship; 2) those with some work experience, but no union connection; and 3) union members. This addresses applicants' need to identify possible career pathways so that primary, secondary and optional union options are discussed, as well as math and reading scores, high school diploma and college credits.

Participants have demonstrated a 50% return rate after the introductory meeting. Outreach follows these steps: first, participants attend the Construction Utilities Pathway Program (CUPP) Info Session. Outreach is done to target groups including veterans, females, and reentry. Next, participants register with One-Stop AJCC. Participants receive individualized Career Pathway sessions that include trade-

specific assessments. The job-readiness curriculum is Blueprint for Workplace Success. Work-ready clients are referred to union representatives, job coordinators, and partnering contractors, developers, and agencies. Participants are given trade-specific test preparation tools and financial literacy support. Finally, support services are provided or a referral is given to appropriate resources as needed.

### **Target Projects**

The Stadium Project has identified 400 individuals for the Apprenticeship Program; 200 are in the process of being hired with 80% from the immediate project area, and strong participation by underrepresented groups. Three different labor unions are involved to handle different phases of project. The LAX rental car project requires 1600 apprenticeships. These apprenticeships are recognized as Registered Apprenticeship and must meet the 2,000 hour DOL requirement for classroom and On-the-Job Training requirements. With Apprenticeship training on these projects, individuals will also be qualified to work on highway projects. Other WDBs have been asked to identify major highway projects in their areas.

### **Retention**

Coastline Community College provides pre-apprenticeship highway specific training. Candidates who complete training but are not currently employed work with case managers to overcome challenges to gaining employment. Coastline Community College also works with unions and firms to provide tools and uniforms to participants. Recruiters and trainers noticed that some candidates stopped pursuing construction when they failed the basic math test. With encouragement and remedial training at the local community college, candidate retention improved.

### **Best Practices**

As a best practice, work with local community organizations to identify where people are leaving the workforce development system, meet them there, and offer options. Other best practices include consistent and continued relationship building and joint partnership solicitation, especially resource and funding development. Braiding and leveraging funding for training and support services improves retention and inclusivity. Further, building One-Stop Staff's construction knowledge strengthens the pathway from job centers to training. Lastly, a stable referral system and the development of SBWIB's Jobs Coordinator Service Platform keeps pathways accessible to the workforce as it develops.

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## PITTSBURGH HCWP: HIGHWAY CONSTRUCTION CAREER AWARENESS APP

### Overview

The Constructors Association of Western Pennsylvania (CAWP), an AGC affiliate developed a highway construction career awareness mobile gaming app called Future Road Builders. Future Road Builders is a virtual pre-apprenticeship program that uses a collection of apps in its skills arcade. These free games allow players to interact with each phase of a virtual highway construction project and learn about the skills needed to be a construction professional. The program serves as an introduction to highway construction jobs and a pathway to highway construction apprenticeships.

### History

Future Road Builders was initially built as a PC-based program housed on a website in 2015. Participants were able to log in and engage in a learning environment at a virtual job site. The website was successful, but when computer systems changed, there were compatibility issues with newer systems. It was determined that using mobile gaming app technology would resolve these issues, and that the career awareness tool would then be more accessible to the target audience. The Future Road Builders app was developed in 2017 via a FHWA Ladders of Opportunity OJT/SS grant. Additional state grants have been utilized the past two years to update and/or enhance the apps or for marketing. The app was in existence for about a year prior to the pilot.

### Contractor Survey

When the pilot began, a survey was conducted with contractors who are members of CAWP. First line supervisors, heavy equipment operators, laborers, carpenters, truck drivers, and cement finishers were identified as in high demand. These were the target occupations selected. The app has been active in helping facilitate entry-level placement. On-the-job training is not built into the app but is acquired once the candidate enters into an apprenticeship program.

### The App

The Future Road Builders app consists of videos, images and mini-assessment challenges that provide participants with a better understanding of the industry and assists in uncovering the skills needed for a career in highway construction. Participants spend time exploring each trade within the game and receive a "Get to Work" badge that can be used when applying for apprenticeship programs in highway construction. Participants receive badges that accumulate on their account, beginning with a safety badge at orientation. There are numerous interrelated and cross-advertised construction safety apps and a dozen games. Highway construction pay scale information is also available. Developers ensured that at least 50% of the 18 avatars represent minority and female

populations. Participants can print a certificate of all badges earned. The certificate is issued to pre-apprenticeship programs.

### **Marketing and Outreach**

More than 25,000 individuals have downloaded the Future Road Builders app, which amounts to about 20-25 downloads per day. The latest marketing campaign was two videos; one was more general, and the other was specifically targeted to women via Facebook. This video showcases a female apprentice who played Future Road Builders through the Intro to the Trade pre-apprenticeship program and won Apprentice of the Year. During the first year, twenty-three percent of 1,000 construction apprenticeship participants who took an apprenticeship test became aware of the apprenticeship program through Future Road Builders. Thirty-seven individuals (or 22% of those who were accepted into the apprenticeship) played Future Road Builders.

### **Partnerships and the Pittsburgh Job Corps.**

The pilot focused on building a diverse partnership of organizations that met three times a year at the CAWP offices, apprenticeship centers, or at Job Corps sites. As a result of this partnership, Pittsburgh Job Corps was made aware of highway workforce needs and created their own eight-week highway construction program. Once participants complete this eight-week program, they can advance directly into the local laborers' apprenticeship program. The Pittsburgh Job Corps has trained and placed eight individuals into highway construction jobs. Other partners include USDOL Employment and Training Administration, PennDOT, Bureau of Equal Opportunity, local district office, and construction contractors.

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## RHODE ISLAND HCWP: BRINGING WOMEN INTO HIGHWAY CONSTRUCTION CAREERS

### **Rationale and Target Populations**

Training programs are needed that are designed to prepare women for entering and succeeding in apprenticeship programs, address barriers to women and minority participation, and provide additional support for success. The Rhode Island HCWP Program is focused on bringing women into highway construction careers through the Rhode Island Building Futures Program.

### **Overview**

The Building Futures Program prepares low income individuals in urban areas for construction careers. Orientations are held in January, May, and September and are followed by a comprehensive assessment process to determine interest and readiness for a career in nonresidential construction through registered apprenticeship. Through the five-week, 200-hour pre-apprenticeship training, program participants engage in hands-on experiential learning, acquire much-needed employability skills, and develop an understanding of various trade occupations as well as industry standards and practices. The program uses online and classroom training for basic skill development needed in all construction trades. Six hours per day are spent on safety instruction, hands-on construction activities, and certification coursework, including OSHA 10 and CPR AED. The remaining time is spent on classwork, including soft-skills, financial literacy, and contextualized math instruction. Field trips are taken to apprenticeship training sites.

### **Mentorship and Wraparound Services**

The program includes services to address barriers to program participation and future employment and also engages women graduates as mentors for students. A mentorship program has been introduced that connects program candidates and trainees with graduate tradeswomen and includes formalized training for mentors. Wraparound services are offered on-site through a case manager, a master's level social worker, and a licensed clinician. Additional supportive services are offered through partnerships with public sector and community-based agencies, including the public defender's office and Roger Williams University Law School's Pro Bono Collaborative License Restoration Project. On Neighborhood Builders, a local community development corporation, provides a first-time homebuyer instruction course and healthcare agencies assist with substance abuse disorders. Other services include education assessment, tutoring and support, and helping eligible participants to access governmental benefits, including health insurance and supplemental nutrition. Building Futures is a listed provider of Rhode

Island Supplemental Assistance Program Employment and Training (SNAP E&T). Building Futures is partnering with the RI Department of Corrections to develop programming in the women's correctional facilities which will prepare women to enter the pre-apprenticeship program upon reentry.

### **Targeted Outreach**

Women-oriented outreach materials are posted with community organizations, neighborhood businesses, and shared online. Building Futures' staff and tradeswomen educate employment and training services staff on the benefits of trade apprenticeship for diverse workers, participate in job fairs and community events, and collaborate with community-based agencies. Graduate tradeswomen share pre-apprenticeship information through social media and create recruitment plans within their personal networks. Outreach has been successful with women, and the program has found exposure to high school students at construction career days. Approximately 120 individuals attend each program orientation – female participation in these orientations has doubled throughout 2019. Veteran participation has been low because there is no active military base in Rhode Island; however, robust outreach occurs through the state Office of Veterans Affairs, the federal Veterans Administration, RI National Guard, and veteran-serving organizations such as Operation Stand-Down. A barrier to retaining women who are interested in the program is a lack of childcare, especially childcare that is available at or before 6:00 AM.

### **Highway Construction Projects, Funding, and Partnerships**

The pilot is focused on occupations needed most on highway projects such as iron workers, carpenters, laborers, and masons. Rhode Island has an aggressive ten-year bridge replacement plan to address deficient bridges. Though funding is diverse, coming from WIOA dollars, state grants, and philanthropic ventures, funding primarily comes from RIDOT's investment in Building Futures OJT/SS. The FHWA Rhode Island Division and RI DOT are working with the Governor's Workforce Board. Building Futures serves on the local workforce development board in leadership as well as with the state apprenticeship council to ensure alignment of public workforce activities with the OJT/SS program and registered apprenticeship through the HCWP. Other partners include Associated General Contractors of American RI Chapter (AGC), New England Mechanical Contractors Association, New England Electrical Contractors Association, three institutions of higher education, Local Initiative Support Corporation (LISC), the RI Building and Construction Trades Council, and each of the 12 jointly-administered apprenticeship programs and coordinators.

### **Building Leadership**

Building Futures has demonstrated great success in the leadership development of female graduates by enabling alumna to provide support for HWCP programming, mentor to women new to the building and construction trades, and advocate for diversity and equity industry-wide. Building graduate leadership is critical to support the retention of women and minorities in the trades. As female graduates build their leadership, they are better equipped to support new workers and to model success for nontraditional workers. Last October, the program sent six tradeswomen graduates to the national building trades-sponsored Women Build Nations conference in Minneapolis, Minnesota for

leadership development. By building the leadership capacity of tradeswomen, the program is working toward their goal of ensuring trade unions are committed to and actively addressing inclusivity for women and minorities in construction occupations.

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## SOUTH DAKOTA HCWP: HIGHWAY CONSTRUCTION CAREER EXPLORATION AND TRAIN-THE-TRAINER PROGRAMS

### **Overview**

The highway construction workforce challenges for South Dakota are driven by low unemployment in the state and its rural demographics. The Highway Construction Workforce Partnership Task Force is focused on using largescale outreach measures to bring participants aged 24 to 42 into a construction career exploration course and job fair (Phases 1 & 2) and a Train-the-Trainer program (Phase 3) for replicating and sustaining the program.

### **Outreach**

Using Facebook in three major cities, the program was able to reach over 5,000 people. Outreach also took place at community service organizations and social service agencies, such as daycare and housing centers. The program is partnered with nine South Dakota tribes through the Tribal Employment Rights Offices (TERO) as potential referral sources for participants and also as potential trainers in the future. Further outreach material was provided in tribal newsletters. South Dakota has good participation from key partners, including the AGC Chapter, South Dakota Department of Labor, FHWA Division, South Dakota Department of Education, and South Dakota Department of Transportation.

### **Program Curriculum, Structure, and Next Steps for Replicability**

The Task Force has conducted three pilot outreach and recruiting programs for a construction awareness course, taught by Project Solutions, Inc. of Rapid City, South Dakota, the consultant hired by the task force to coordinate the pilot project. The single-day program is composed of four modules: (1) introduction to highway construction, (2) safety in the construction industry, (3) soft skills for employability, and (4) career pathways. Each module is a PowerPoint that includes videos to help participants identify with successful people in the industry. Participants are given a Certificate of Completion for Construction Awareness to show future employers. Upon completion of the training, participants were given the opportunity to participate in a job fair with local contractors. After the program, participants are contacted and asked about their interviews with hiring agencies from the job fair as well as possible obstacles during the interviewing process. From lessons learned in the pilot program, some adjustments are being made in preparation for Phase 2, such as compressing the modules and adding more speakers and subject matters experts. Phase 2 is scheduled to launch March 2020. Phase 3, which will go through July 2021, will be train-the-trainer and aims for replicability and sustainability.

## **Obstacles, Concerns, and Lessons Learned**

An obstacle presented to the Working Group is that participants were non-employable, as seen with lower numbers of new employment. The proposed solution is to lower the age requirement of the program from 24 to 18 to include recent high school graduates. Largely, high school graduates are not seeking a college education in South Dakota, so they are a prime demographic. The program also found that participants arrived without a resume, and that many participants were not computer savvy. A one-page template will be provided to participants during the job fair and resume development via Department of Labor Career Learning Center Services will be leveraged. Further, a better focus on the hire-readiness of both program participants and employers during the job fair would be beneficial. Supplying a computer on site for the job fair and addressing the disconnect between human resource departments and operations will help with this aim. Lastly, there is need for increased collaboration to understand how all the components of the project come together.

While Phase 1 of the program was self-sustaining, the program plans to have 6 locations in 2020 for Phase 2, increasing the need for trainers and construction training modules leading to Phase 3. Finding dependable, timely, and consistent funding has been a concern for later phases of the project. HCWP programs should be workforce driven, data driven, and have the industry involved and represented.

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