



**Creating a Skilled and Diverse Workforce
for Infrastructure Projects through
Registered Apprenticeship**

**Questions and Answers for State
Transportation Agencies**



As state transportation agencies implement the Bipartisan Infrastructure Law, creating high-quality jobs and a workforce that is capable of executing on these projects will be critical. States are responsible for implementing a number of key infrastructure programs, including highway programs funded by the Department of Transportation and broadband programs funded by the Department of Commerce. The need to create a skilled workforce is common across the programs that states are implementing, and the workforce strategies to address challenges in one sector may also support the workforce needs of another sector.

One workforce strategy that is important for highway programs and most infrastructure projects is the expansion of Registered Apprenticeship and pathways that lead people into apprenticeship. Expanding registered apprenticeship will help to ensure the next cohort of skilled tradespeople is being trained as projects are being delivered. At the same time, states may want to take steps to make Registered Apprenticeship more accessible to populations that have been underrepresented in the infrastructure workforce including women, people of color, people with disabilities, and others.

The questions and answers below focus on the actions that state transportation agencies may want to take to expand the workforce for installing and maintaining electric vehicle chargers, but the information provided is applicable to many other areas of infrastructure.

What is a registered apprenticeship and why is it a strong workforce training model?

Registered Apprenticeship is an industry-driven, high-quality career pathway validated by the U.S. Department of Labor where employers can develop and prepare their future workforce, and individuals can obtain paid work experience, classroom instruction, and a portable, nationally recognized credential.

There are many benefits of the Registered Apprenticeship model. It is an employer-driven model that combines on-the-job learning with related classroom instruction, an approach that increases an apprentice's skill level and wages. Registered Apprenticeship is also an "earn and learn" model – apprentices receive a paycheck from day one, so they earn wages while they learn on the job. It

is a proven solution for businesses to recruit, train, and retain highly skilled workers. Registered Apprenticeships are not just for the private sector – many federal government agencies, including the U.S. military, have apprenticeship programs.

Registered Apprenticeship is very well-established in the construction trades. There are already tens of thousands of graduates of registered apprenticeship programs in the skilled trades. For electricians alone, there are more than 11,000 apprentices that graduated this year and 100,000 current apprentices across all 50 states.¹

For more information on Registered Apprenticeship, please visit apprenticeship.gov.

What is the role of state apprenticeship agencies? Who is my state office of apprenticeship lead?

The regulation at 29 CFR part 29, subpart A (titled “Registered Apprenticeship Programs”) defines a State Apprenticeship Agency (SAA) as “an agency of a State government that has responsibility and accountability for apprenticeship within the State.” SAAs are recognized by the Office of Apprenticeship within the U.S. Department of Labor to register and oversee state and local Registered Apprenticeship Programs (RAPs) and apprenticeship agreements for Federal purposes in their respective state/territory (see 29 CFR part 29). Each SAA provides direct support and technical assistance to program sponsors in designing, registering, and launching their programs; responds to inquiries from interested parties about the RAP model, guides Registered Apprenticeship partners on each phase of developing a RAP, connects employers to training providers, and advises Registered Apprenticeship partners of available funding sources to support RAPs.

SAAs are responsible for registration of apprenticeship programs in over half of the states and territories, the Department of Labor’s Office of Apprenticeship is responsible for program registration in the other states. To determine who the state Office of Apprenticeship lead is for each state/territory, individuals can visit the Department’s website at: <https://www.apprenticeship.gov/about-us/state-offices>.

What steps can state departments of transportation and other state agencies take to expand registered apprenticeship?

State Departments of Transportation (state DOTs) are uniquely positioned to help expand Registered Apprenticeship for the training of the Electric Vehicle charging workforce and other

¹ Data reported in DOL RAPIDS system plus California, one of several states that don’t report to RAPIDS.

workforces critical to infrastructure projects. Below is a non-exhaustive list of ways state DOTs can expand Registered Apprenticeship:

- *State DOT Initiatives* –
 - Apprenticeship openings are driven by demand for apprentices and journey-level workers, so the best way to expand apprenticeship is to use apprentices and graduates of apprenticeship programs on projects. States can create the demand for Registered Apprenticeship by setting standards in transportation contracting about how many apprentices should be used on the project (e.g. 20 percent of project hours must be performed by apprentices). These are called apprenticeship utilization rates. Apprenticeship utilization rates can also be included as part of a project labor agreement. See question #7 below for information on how combining these apprenticeship requirements with local and economic hiring preferences can increase hiring from economically disadvantaged communities.
 - State DOTs [can use a wide array of funding](#) for NEVI and highways, as well as some transit funding, to provide funding to labor-management partnerships, community colleges, workforce boards, community-based organizations, labor unions, industry associations, and others to set up Registered Apprenticeship programs. See the last question below for more information on funding eligibility.

- *State Partnerships*: State DOTs can partner with other agencies to help support program development and design and drive expansion through effective state-based partnerships, including:
 - State Apprenticeship Representatives – in every state there is an infrastructure for supporting the development and registration of apprenticeship programs. State DOTs should familiarize themselves with their Apprenticeship counterparts to build out and strategize expansion efforts. To contact your state apprenticeship representative, please visit - <https://www.apprenticeship.gov/about-us/state-offices>.
 - State Workforce Agencies – every state receives workforce development resources for training workers under the Workforce Innovation and Opportunity Act (WIOA), which can be used to support a variety of activities including to provide supportive services and training for both youth and adults in both pre-apprenticeship and Registered Apprenticeship opportunities. WIOA activities are primarily delivered at the local level, but state DOTs are encouraged to partner with the State Workforce Agencies to engage in strategic discussions to expand Registered Apprenticeship opportunities
 - State education agencies - State workforce agencies and state education agencies can support the creation of registered apprenticeships that articulate with community college certificates and degrees so that people can earn college credit simultaneously.

What can state transportation entities do to expand diversity of registered apprenticeship programs?

Women, people of color, people with disabilities, and others have historically been underrepresented in construction occupations, and particularly in the specialty trades, relative to their representation in the labor force. State DOTs can play a powerful role in helping to expand and diversify the construction industry generally and specialty crafts specifically through Registered Apprenticeship programs. As state DOTs are implementing the Electric Vehicle Charging program they are encouraged to take steps to achieve greater diversity in the workforce.

Some steps that states can take include:

- State DOTs could consider publishing aggregate data about who is in the EV charging workforce, including providing information on how goals for bringing in women, people of color, and other underrepresented groups are being met.
- State DOTs can also partner with State and Local Workforce Development Boards, community colleges, and other postsecondary institutions such as Minority Serving Institutions (MSIs), Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), and Tribal Colleges and Universities (TCUs) to develop and hold recruitment events in underrepresented communities with community partners. These efforts can include recruitment for upcoming classes in pre-apprenticeship programs and open recruitments for Registered Apprenticeship programs.
- State DOTs could also develop partnerships with providers focused on groups with specific barriers to employment. For example, state DOTs could consider partnering with their state department of corrections and reentry providers to develop employment opportunities for people with convictions. The Biden-Harris Administration recently released a comprehensive strategy for [Incarceration to Employment opportunities](#).
- State DOTs should be aware that steps are needed not only to recruit more individuals from underrepresented groups but also to increase retention of these groups. The continued provision of supportive services is one important tool to help individuals thrive in employment. Supportive services include childcare, emergency cash assistance for items such as tools, work clothing, application fees and other costs of apprenticeship or required pre-employment training, transportation and travel to training and work sites, and services aimed at helping to retain underrepresented groups like mentoring, support groups, and peer networking.

State transportation entities should be aware that Registered Apprenticeship has regulations in place to prevent discrimination and there is an ongoing effort to make Registered Apprenticeship more diverse. State DOTs are encouraged to establish an ongoing partnership with the local OA or SAA office that administers and registers apprenticeship programs in their given jurisdiction. Such a partnership should entail, among other things, a collaborative effort to educate and inform Registered Apprenticeship program sponsors about their EEO obligations under the foregoing regulations, including the maintenance of a workplace for apprentices that is free from discrimination, harassment, violence, and intimidation. In addition, the Department of Labor's EEO webpage contains a discussion of the Universal Outreach Tool (UOT), which can

be used by program sponsors to identify the availability of a diverse and inclusive apprenticeship workforce in their local areas (the Department of Labor’s UOT website can be viewed at: <https://www.apprenticeship.gov/eo/sponsors/recruit-and-hire/universal-outreach-tool>).

What standards exist within registered apprenticeship regarding diversity?

Registered Apprenticeship is a powerful tool for growing the American economy and training its workforce. The sponsors of these programs can play a vital role in ensuring that their apprenticeship programs are accessible to all individuals seeking to enroll, and tapping into the strengths and talents of America’s increasingly diverse labor pool so that that their programs are broadly reflective of the demographic composition of the communities in which they operate. Since 1963, the Department of Labor has administered an EEO regulation for Registered Apprenticeship programs that prohibits discrimination against apprentices and applicants for apprenticeship (the current version of this regulation, at 29 CFR part 30, can be viewed at this link: <https://www.govinfo.gov/content/pkg/CFR-2021-title29-vol1/pdf/CFR-2021-title29-vol1-part30.pdf>). The Department of Labor has also established a detailed webpage for sponsors in addressing the application of these EEO requirements at:

<https://www.apprenticeship.gov/eo>. However, in order for Registered Apprenticeships to realize their full potential for improving the working lives of underserved populations such as women, communities of color, and individuals with disabilities, it is vital that key apprenticeship stakeholders adopt a more intentional approach to ensuring that all such programs are characterized by diversity, equity, inclusion, and accessibility (DEIA) principles. High-quality, inclusive Registered Apprenticeship programs can play a crucial role in breaking down longstanding racial, ethnic, disability, and gender-based barriers to accessing family-sustaining careers in a wide variety of industries and occupations. Supporting DEIA also benefits employers who gain greater access to a larger pool of qualified workers from diverse backgrounds.

What steps can state transportation entities and other state agencies take to expand pre-apprenticeship programs or other pathways into registered apprenticeship and increase diversity at the same time?

Often times, short-term training programs help individuals to prepare to enter a registered apprenticeship program. These are referred to as pre-apprenticeship or apprenticeship readiness programs. These programs often focus on underrepresented populations and can be a good way to help these populations move into registered apprenticeship. Such programs work best when they are responsive to the needs of the target population and articulate into apprenticeship programs. State transportation agencies may want to expand these programs. Below are some steps that can be taken.

- States transportation entities could collaborate with state workforce agencies to identify programs that are effective in preparing people for Registered Apprenticeship and steer more people into those programs. Some states may be able to use state workforce system data for this or they could ask major contractors and unions about their hiring practices to

learn which programs are currently getting people into Registered Apprenticeship programs. State workforce agencies could inform the development of outreach and recruitment materials that could include maps, lists, and directories of available programs. They could also train job counselors across the system on these programs so that jobseekers can learn about the programs. States can also recommend these programs to people receiving Unemployment Insurance.

- States transportation agencies can scale programs that are working by providing funding both to programs and to individuals wanting to go through programs. Pre-apprenticeship programs and other training programs leading to registered apprenticeship may not be covered by traditional financial assistance for education. Even when programs are free to participants, a small living stipend can help people to complete the short-term programs, which often require them to leave their current jobs.
- States transportation agencies can provide funding for more pre-apprenticeship programs that fill existing gaps and should collaborate with state workforce agencies to understand what funding streams may already exist that they could supplement. Creating pre-apprenticeship programs should be done in partnership with employers, unions, community colleges, or other training providers. Pre-apprenticeship programs should be available to *meet all individuals where they are starting*. State transportation agencies and state workforce agencies should consider whether there are gaps for adults with particular barriers to employment. Commonly there are gaps in programs to meet the needs of the following populations: individuals with a criminal record, Individuals who need childcare support, individuals with a disability, individuals with limited English proficiency, and individuals with below basic math skills.
- Quality pre-apprenticeship programs facilitate access to appropriate supportive services during the program; these supportive services may continue after the participant leaves the pre-apprenticeship program and enters a registered apprenticeship. Services may include counseling, transportation assistance, childcare, and rehabilitative services, among others. State Departments of Transportation can collaborate with workforce agencies to make sure these supportive services are available.
- State transportation agencies could also work with their state departments of education and board of technical colleges to create secondary and post-secondary programs that could lead into registered apprenticeship. State Perkins funding could be leveraged for these activities.

How can states use local and economic hiring preferences to ensure that disadvantaged communities benefit from added job growth?

Local and economic hiring preferences are provisions in a contract requiring a contractor on a project to employ workers or apprentices/trainees from a specified target group or population. State DOTs can utilize local and economic hiring preferences for the use of labor in construction of many federally funded projects sponsored by a state or local jurisdiction, when permitted under state law. These hiring preferences could be used when contracting with EV charging

installers and in other construction projects sponsored by the state. Local and economic hiring preferences used to be allowed under pilot authority only, but are now permissible for a broader universe construction projects. One option states could consider is establishing a hiring preference from disadvantaged communities such as those defined by the U.S. Department of Transportation [here](#) or defined by a state or local jurisdiction, as long as the definition of a disadvantaged community is consistent with the equal protection requirement of the U.S. Constitution. If local and economic hiring preferences apply to the set of registered apprentices on the project, then that will also create an incentive for apprenticeship programs to recruit from disadvantaged communities. See [this fact sheet](#) for more information on local and economic hiring preferences.

What funding can states use to support the activities recommended above?

NEVI Formula Program funds can be used for workforce development activities so long as they are directly related to the charging of an electric vehicle. There are also many other funding sources available for EV workforce activities, which are cataloged here:

https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/ev_funding_report_2022.pdf

Recipients of awards under FTA's Low or No Emission Competitive Grant Program (Low-No Program) can use up to 0.5% of a grant award for workforce development activities.

Additionally, recipients of awards to procure zero-emission vehicles under either the Low-No Program or FTA's Bus and Bus Facilities Competitive Grant Program must use 5 percent of the Federal award for workforce development to retrain the existing workforce and develop the workforce of the future, unless the recipient certifies that less funding is needed.